



Overall Report



Activities at Amity University Haryana (2021-22)



AMITY
UNIVERSITY
— HARYANA —

NAAC 'A'
GRADE
ACCREDITED UNIVERSITY

REPORT ON SUSTAINABLE DEVELOPMENT GOAL

1 NO
POVERTY



YEAR 2021-22



Amity University Haryana is strongly committed to the goal of 'No Poverty' and playing an impactful role to ensure compliance in terms of Sustainable Development Goals (SDGs) as per mandate of United Nations to make universities living 'laboratory of sustainability'. To fulfil the 2030 Agenda of the United Nations in terms of poverty eradication, Amity University Haryana aims at providing quality education by improving access to sustainable livelihood and employment opportunities, entrepreneurial capabilities and encouraging greater productivity. The high quality and multidimensional scale of Amity University Haryana's efforts and endeavors to transform itself into sustainable campus has been duly recognized as India's first University and Asia's 2nd to earn LEED Platinum Certificate from US Green Building Council. The University is meaningfully contributing to the SDG-1 through following measures:

- Inclusive admission policy to various programs of the University in a manner that is based on merit cum need basis catering to all sections of deserving population.
- Scholarship support to student from low-income families
- Financial assistance: support in getting hassle-free bank loan and easy education financing options
- Provide 'earn while learn' opportunity to students in terms of dynamic approach for pursuing internship with industry belonging to both public and private sectors as well as think tanks.
- Placement assistance to all students for employment
- Special emphasis is imparted by the University in providing need-based admission and financial assistance to girl students as part of deliberate endeavour to reduce social inequality and enhance employment opportunities to girls/women so that they are adequately empowered and may come out of poverty and become self-reliant.
- Amity Innovation Incubator providing start-up support for new ventures in an inclusive and sustainable manner for credible job creation and poverty alleviation.
- Outreach activities supporting poor people of the society and contributing to their overall physical and mental wellbeing
- Providing free medical services in local community from time to time such as conducting free dental check-up camp, free eye-check up camp and distribution of essential medicines as and when required.

INCLUSIVE ADMISSION POLICY

The University is aimed at recruiting and admitting students who have the potential to and who are most able to benefit from the University's learning, teaching and research environment, regardless of background. The University aims to establish an inclusive culture which welcomes and ensures equality of opportunity for applicants of all ethnicities, family structures, genders, nationalities, races, religious or philosophic beliefs, and socio-economic backgrounds.

The University supports a range of activities and initiatives aimed at widening access and fostering the University's inclusive and diverse culture while enabling truly international learning environment for students.

This policy is intended to provide a broad framework and a set of principles for determining admission for courses of the University, consistent with requirements and guidelines of University Grant Commission and other relevant regulatory and statutory bodies of the country, as

applicable, regulating and promoting the higher education in India and also to the State of Haryana.

Core Principles of AUH Admissions:

- Alignment with Institution Mission
- Fairness & Integrity
- Transparency
- Professionalism
- Accessibility
- Holistic Review
- Accurate & Timely Communication
- Financial Aid/ Scholarship
- Constant student engagement
- Meeting regulatory requirements

In year 2021-22, the University has admitted approximately 8 per cent of students from economically weaker section/backward classes/schedule classes and other marginalized sections of the population. The education at University will facilitate upliftment of their social and economic status and will provide the equal opportunities towards employment in life to grow, sustain, and progress.

SCHOLARSHIP AND FINANCIAL ASSISTANCE

The University offers Merit Scholarship and Means Cum Merit Scholarship to the students and also provides financial assistance in getting access to bank loan. During the year 2021- 22 scholarship worth Rs 4,20, 84,000 have been given to 555

students which comprises 22.2 per cent of total number of students admitted during 2021-22.

The detail of scholarship scheme is available at <https://amity.edu/admissions-scholarship.aspx>

Admissions Amity Universe Careers News Alumni Scholarship Contact Admission Microsite Login

ABOUT AMITY PROGRAMS CAMPUSES INFRASTRUCTURE RESEARCH HAPPENINGS APPLY NOW 2023

Scholarship Based on CUET- 2023 for UG Programs

Scholarship %	XI % (2023)	CUET Percentile Score
100%	85%	95 percentile
50%	80%	90 percentile
25%	80%	85 percentile

- *students from ICSE/ CBSE and State Boards only
- 100% Scholarship not applicable to all Bachelor programmes of Psychology & B.Tech CSE.
- Above mentioned Scholarships are Not Applicable for B.Pharma program.
- Limited Scholarship seats are available, which will be offered on first-cum-first-serve basis.
- Scholarship is granted on annual basis and continuation in second and further years of the program is subject to scholarship policy of ALLUR Noida.

Scholarship

21°C Smoke 11:41 23-11-2023

Admissions Amity Universe Careers News Alumni Scholarship Contact Admission Microsite Login

ABOUT AMITY PROGRAMS CAMPUSES INFRASTRUCTURE RESEARCH HAPPENINGS APPLY NOW 2023

Scholarship in Graduate programs:

Scholarship cum Fast Track Admission: (On Admission Scholarship)

- Fast Track Admission without appearing in Admission Selection Process
- Scholarship in academic fees for the first year of the program, will be offered to the candidates of class XII, appeared in the year 2022 & 2023. Following are the scholarships offered as per scored percentage 2022 & 2023.

Scholarship %	Eligibility*
100%	95% & above Aggregate in XII (CBSE/ISC Only)
50%	90% - 94.99% Aggregate in XII (CBSE/ISC Only)
30%	88% Aggregate in XII (For State Boards Only)

Scholarship for B.Tech. Programs (Based on JEE Score- 2023 and Class XII-2023):

Fast Track admission and Scholarship will be offered in B.Tech. programmes based on JEE 2023 score given as under:

Admissions Amity Universe Careers News Alumni Scholarship Contact Admission Microsite Login

ABOUT AMITY PROGRAMS CAMPUSES INFRASTRUCTURE RESEARCH HAPPENINGS APPLY NOW 2023

Scholarship for B.Tech. Programs (Based on JEE Score- 2023 and Class XII-2023):

Fast Track admission and Scholarship will be offered in B.Tech. programmes based on JEE 2023 score given as under:

Scholarship %	JEE Main Percentile
100%	97-100
75%	94-96.9
50%	90-93.9

This scholarship is valid for 1st year only. No continuation of this scholarship
JEE Main and Class XII should be of 2023 only

Please Note:

- Fast Track Admission cum-Scholarship is not applicable for the programs of Architecture / Design / Education/ Fine Arts / Fashion / Law / Physical Education / Pharmacy / Performing Arts / Visual Arts and Special Education. Scholarship will be granted on verification of documents after joining the program.
- Aggregate percentage will be calculated on the basis of marks scored in English & three academic subjects (compulsorily including subjects of eligibility AND excluding Physical Education, Fine Arts, Performing Arts or any Vocational/Non-Written subjects). These subjects will only be considered for their respective / select programs.
- Limited Scholarship seats are available, which will be offered after joining the program.
- Students seeking scholarship based on JEE Mains score may note that we have Limited seats under this category and the same will be allotted on first cum first serve basis.

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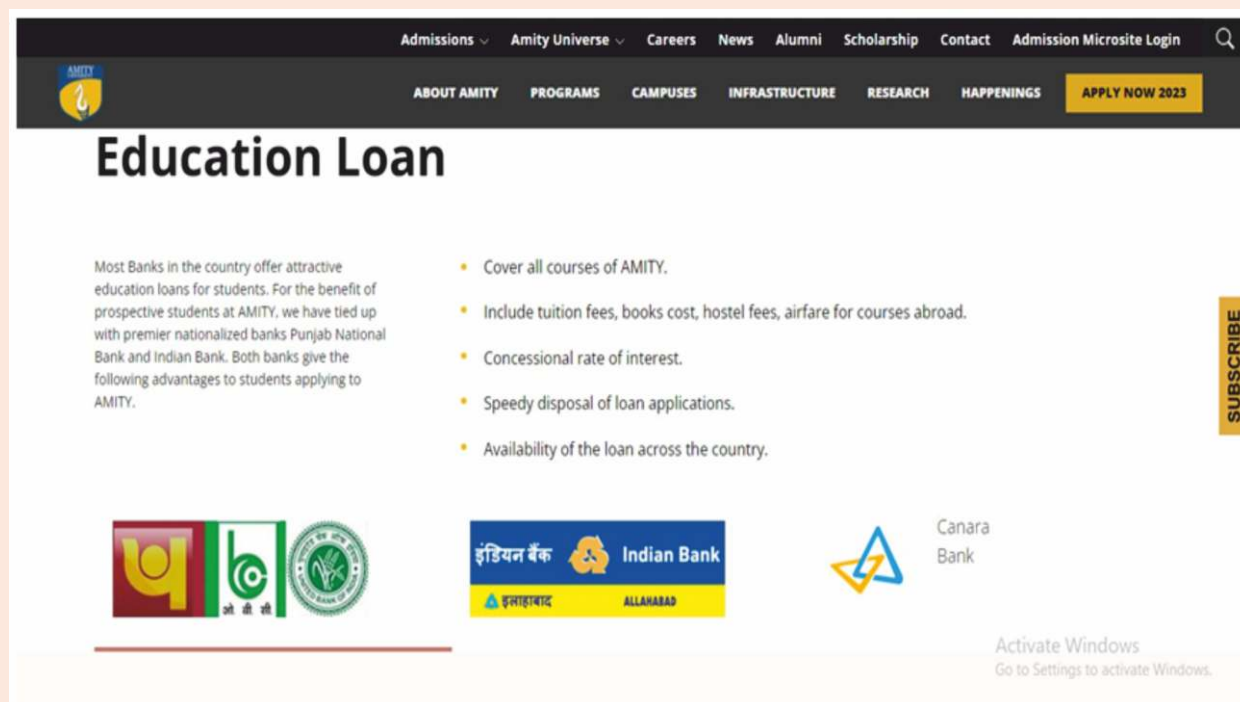
Scholarship schemes for Admission

To support our students Amity has tied up with premier nationalized banks Oriental Bank of Commerce and Allahabad Bank. Both banks give the following advantages to students applying to AUH.

- Cover all courses of AUH.
- Include tuition fees, books cost, hostel fees, airfare for courses abroad.
- Concessional rate of interest.
- Speedy disposal of loan applications.
- Availability of the loan across the country.

The University also provided instalment fee payment option to the students who are unable to make the full payment of fee.

Fee structure of basic Sciences, Arts and Commerce courses is kept low as compared to professional programs to make such courses affordable for students as part of inclusive and sustainable practice for accessing higher education and becoming employable.



Education Loan provision during Admission at AUH
<https://amity.edu/education-loan.aspx>

EARN WHILE LEARN PROGRAMME

The students are given opportunity to work in the University while pursuing their studies. Also, students are provided

opportunity of paid internship and working on live projects in industry.

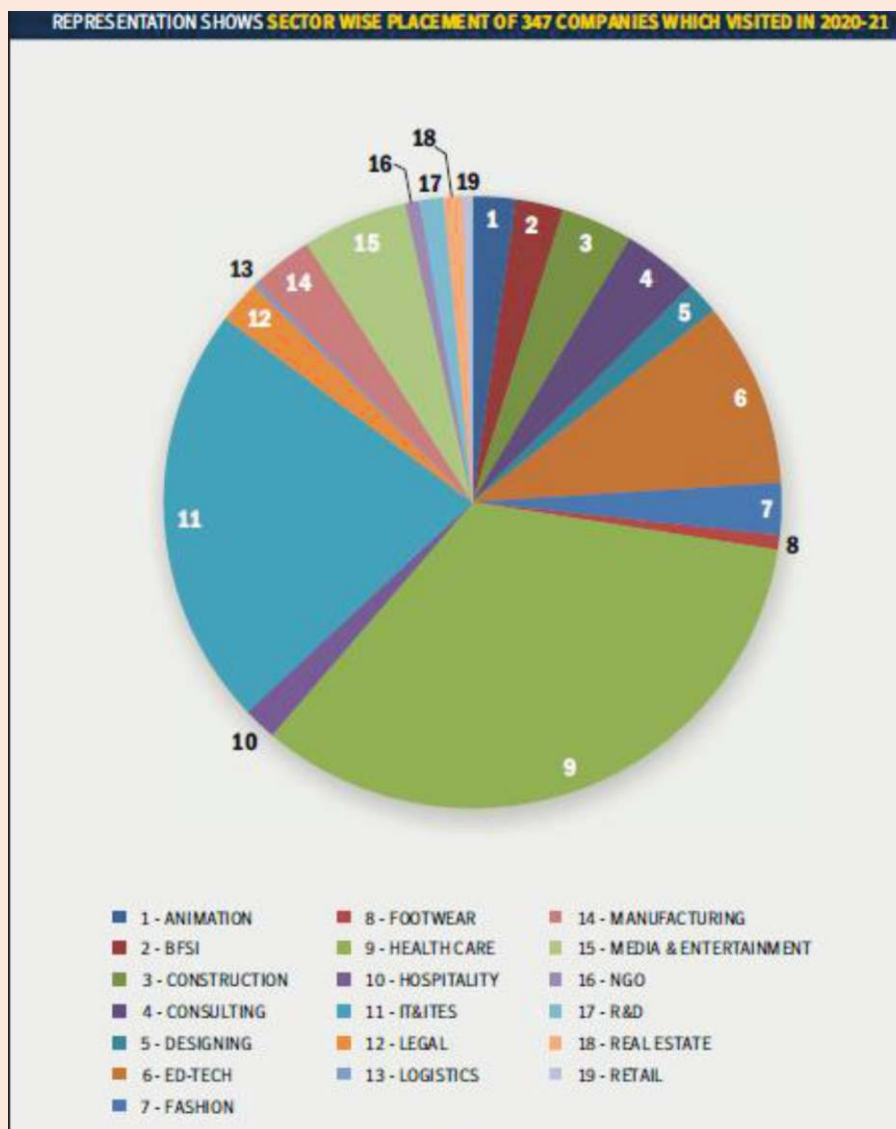
PLACEMENT ASSISTANCE FOR EMPLOYMENT

Corporate Resource Centre (CRC) is dedicated office at the University providing placement assistance. CRC ensures 100 per cent placement for all interested students of the University. More detail is available on the University website, as below:

University Chronicle highlighting the achievements of students and Alumni:

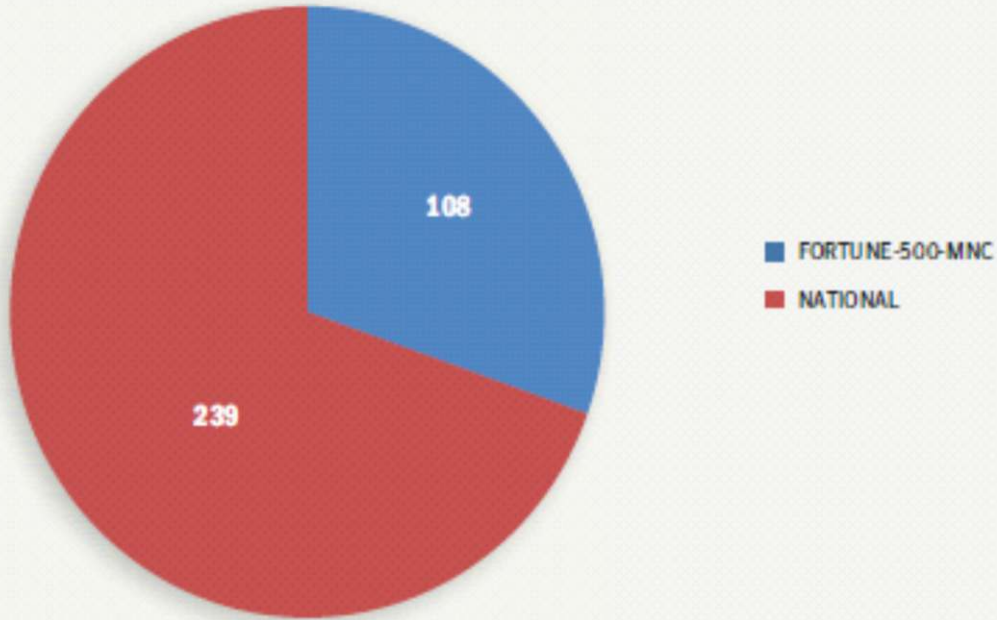
<https://www.amity.edu/gurugram/pdf/14th-uc-edition-sep-2023.pdf>

The University is proud to display some of the major companies which recruit students upon graduation towards enhancing national economic growth, higher employment and income generation and eventual poverty alleviation.

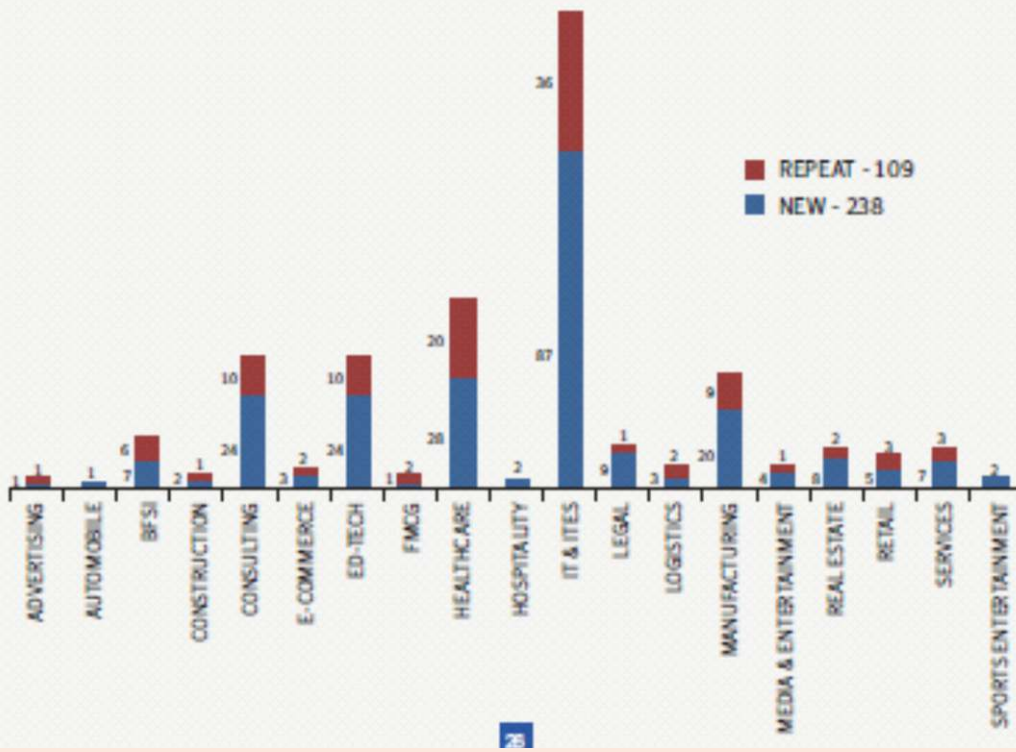


Sector wise placement details 2021-22

REPRESENTATION SHOWS FORTUNE-500/MNC & NATIONAL COMPANIES WHO VISITED IN 2021



REPRESENTATION SHOWS THE NEW ORGANIZATIONS WHICH VISITED IN 2021 FOR THE FIRST TIME



New companies who visited AUH for placement

AMITY INNOVATION INCUBATOR PROVIDING STARTUP SUPPORT

Amity Innovation Incubator is providing the following support services to students and other entrepreneurs from outside and helping them in establishing their startups thus contributing in generating employment, economic growth and sustainable development of the nation:

- Mentoring and Advisory
- Financial Advisory and Support
- Infrastructure and Support

In year 2021- 22, incubator has provided financial assistance to students for developing product prototype which resulted in producing 23 spinoffs from the University.

http://amity.edu/amity_innovation_incubator.aspx

The screenshot displays the Amity Innovation Incubator website. At the top, there is a navigation bar with links for Admissions, Amity Universe, Careers, News, Alumni, Scholarship, Contact, Admission Microsite, and Login. Below this is a secondary navigation bar with categories: ABOUT AMITY, PROGRAMS, CAMPUSES, INFRASTRUCTURE, RESEARCH, HAPPENINGS, and a prominent 'APPLY NOW 2023' button. The main content area is titled 'Amity Innovation Incubator - Through Numbers' and lists several achievements:

- 100 Companies Incubated (physical & virtual) all showing significant financial & operating growth
- Employment generated for more than 2500 people
- Over 200 patents filed for entrepreneurs and 30 technologies commercialized
- More than 25 funding rounds completed
- Network of more than 100 mentors countrywide
- 30 start-ups established by Faculties & Students of Amity University
- Risk Capital raised for 4 Incubatee Companies under SIDBI-SAS Scheme
- Over US\$40 million invested in Incubatee companies through Mergers & Acquisitions and Angel Investments
- Ground breaking technologies being commercialised and utilised by groups such as

At the bottom of the page, there are logos for partner organizations: a red circular logo with a white 'Z', LG (Life's Good), Microsoft, and GreenSocs Windows (Go Settings to activate Windows). A vertical 'SUBSCRIBE' button is located on the right side of the page.

AUH Innovation Incubator

COURSES ON ENTREPRENEURSHIP AND SKILL DEVELOPMENT

Amity University Haryana is selected as a Partnering Institution under Unnat Bharat Abhiyan, a flagship project funded by Ministry of Human Resource Development, Government of India to conduct development activities in the selected five villages in Haryana. AUH had conducted

village survey and household survey to understand the socioeconomic condition of the villagers. Based on the survey, AUH had conducted various training and awareness camps in the field of renewable energy, mental and physical health, nutrition, and entrepreneurship.



Solar Training for women at Fazalwas Anganwadi under UBA



Members of Team UBA conducting the meeting

Ministry of Skill Development and Entrepreneurship had empanelled AUH as training partner under PM YUVA Yojna to educate and equip potential and budding young entrepreneurs. The University has target to impart formal training of entrepreneurship and prepare 2,500 entrepreneurs in next 5 years. Under this revamped entrepreneurship program, course is being offered as full time flexible certification course with 18 credit and 6 tracks. Various programs are offering entrepreneurship development as one of the subjects for the awareness, understanding and inculcating the spirit of entrepreneurship.

The University has been selected for the prestigious 'Hunar Sai Rojgar Tak' under the scheme of Capacity Building for Service Providers' by Ministry of Tourism.



Ministry of New and Renewable Energy has set a target of 50,000 "Suryamitras" of skilled manpower for solar energy sector. Amity University Haryana is a recognized training partner by National Institute of Solar Energy, MNRE. Till date 5 batches of Suryamitra Training Program in collaboration with NISE has been conducted at AUH.

An agrivoltaic plant has been created under 185kWp ground mounted solar power plant involving farmers from the local villages. This is to support the government policy to increase the income of farmers.



Agrivoltaic plant at AUH under 185kWp ground mounted solar PV power plant.

MoU with National Skill Development Corporation (NSDC) and other sector Skill Development Councils to impart skill-based courses to students and make them vocationally equipped for skill-based employment.



Skill development program at AUH for candidates from nearby villages

OUTREACH ACTIVITIES/EVENTS SUPPORTING POOR PEOPLE AND COMMUNITY

Amity University Haryana organized a two days freedom from drug abuse programme Amity Institute of Clinical Psychology (AICP), Amity University Haryana, Gurugram and Civil Hospital, Gurugram organized two-day programme on HIV Aids drug dependence under Freedom. Dr. Mehfooz Ahmed (Assistant Professor the faculties of AICP, Dr Vinay, Psychiatrist & Medical officer, Civil Officer, Civil Hospital, Gurugram, Mr Sachin, Clinical Psychologist, Civil Hospital, Gurugram, MS. Shikha, ICTC Counsellor, Civil Hospital, Gurugram, Mr. Srikanth, Head, Organization of Eunuch, Gurugram, Mr.Usman, Sambandh Mental Health NGO, Gurugram. M. Phil Clinical Psychology trainees and interns at Civil Hospital participated in the program. Dr. Mehfooz Ahmed was the coordinator of the

program. The basic concepts related with drug dependence were discussed for getting more clarity about the symptoms, etiology, theories of drug addiction, types, treatment and relapse prevention of the disorder. Moreover, psychosocial and awareness strategies for menstrual were also discussed. Subsequently, trainees share the experience with the alcohol addict patients and the family members. The programme also highlighted the strategies for early identification and prevention of drug use in the community. If the patient has strong will power social support, positive attitude and the proper treatment then it is not impossible to quit tobacco consumption. The emphasis was on developing the attitude to spread awareness in the community. There is

strong need to remove the stigma in the community. Moreover, If the patient has adequate social support, financial support, positive attitude and the proper treatment then the recovery from the illness is not impossible. The prevention strategies like sensitization, psychoeducation was discussed. The programme emphasized the role of practical and service-oriented aspects in community.

Total 14 students participated in the event.

Blood Test Camp 2022

Amity Medical school, Amity University Haryana organized a blood test camp. The Blood Test camp was started with the full energy and enthusiasm on 10th March 2022 morning at 9: 30 AM, at Glass Hall (Seminal Hall) - B-Block, Amity University Haryana. The team of 7 people (Lab Manager -01, Senior Scientific Officer-1 and Lab Technician-05, from Zen Health

Services Pvt Ltd, Gurugram arrived and initiated the event. They offered one test free from CBC/ Random Blood Sugar/ S.Creatinine and Vital examination i.e. BP, weight, height, SpO2 and Heart Rate testing and remaining tests panels offered at discount for Amity students, faculty, staff, and community people. A total of 110 participants have benefited in this camp.

Inspiration & Objectives of the Event

- To provide basic medical laboratory testing service to students and staff.
- To provide a platform for community for special lab investigations offered at subsidized price
- To provide the platform for diagnosis and detection of COVID, diabetes and cardiovascular events with free testing of blood sugar, CBC and BP.

Total no of Participants was 110.



Blood camp at AUH

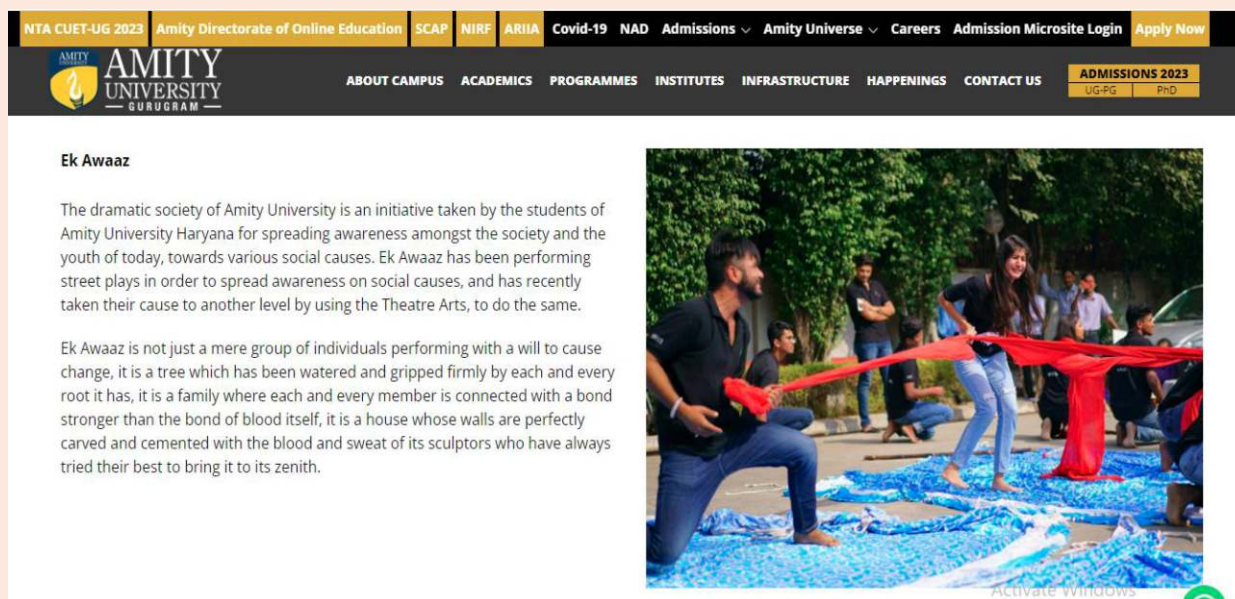


<https://www.amity.edu/gurugram/events/12201/amity-university-haryana-organized-a-two-days-freedom-from-drug-abuse-programme>

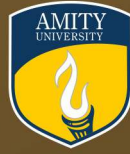


Skill development training program at AUH for young adults from nearby villages

Solar Engineering Department and Department of Electronics and Communication organized a skill development program for training young adults from nearby villages for solar business development at AUH.



Initiatives by students club for creating awareness in the community



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— HARYANA —

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REPORT ON SUSTAINABLE DEVELOPMENT GOAL



YEAR 2021-22



Amity University Haryana is committed to the United Nations Sustainability Development Goal (SDG) 02 to aim for Zero Hunger. We have a culture of spreading smile and happiness through helping vulnerable sections of population such as needy and underprivileged kids, women, and old people in the community. UN SDG 02 – Zero Hunger is a critical goal because of its extensiveness of penetration in global societies whereby there is an urgent need to provide immediate food access to marginalized sections of population along

with associated social protection programs. In that context large universities such as AUH have been playing a crucial role in hunger eradication. Students at Amity along with faculty members conduct food drives regularly and make sure that there should be zero food wastage on campus. AUH has got huge agriculture land in campus for organic farming and created an ecosystem for implementing sustainable agricultural practices. This document summarizes some of the initiatives taken by the AUH towards addressing this.

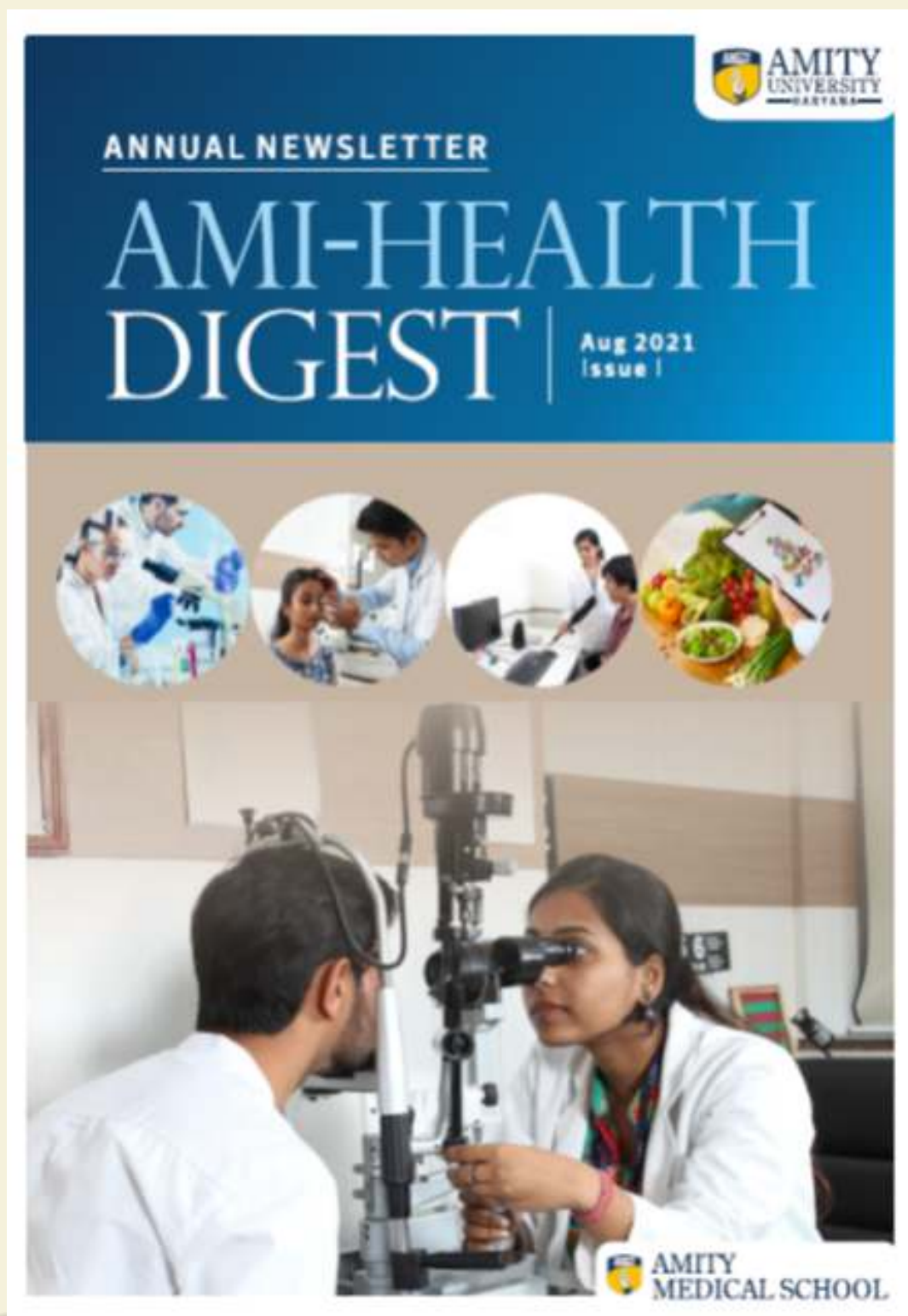
TEACHING AND LEARNING

Amity is providing degree courses BSc, MSc, PhD in Dietetic and Applied Nutrition. Students from Amity School of Hospitality along with Food Nutrition and Dietetics department organize awareness camps for healthy and nutritious food for nearby

societies. For understanding the importance of healthy and nutritious food Amity has elective course in Nutrition and Dietetics, and student's internship is also part of curriculum for Amity School of hospitality and nutrition department.

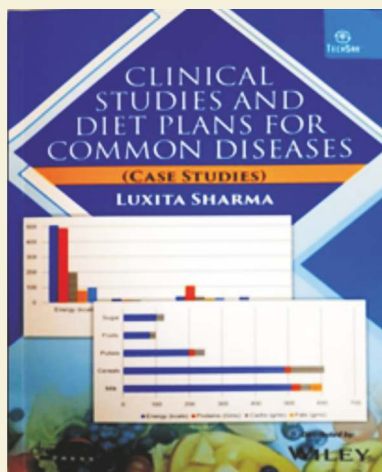
Programme Name	Link
B.Sc. (Dietetics & Applied Nutrition)	https://www.amity.edu/gurugram/bsc-dietetics-and-applied-nutrition
M.Sc. (Dietetics & Applied Nutrition)	https://www.amity.edu/gurugram/msc-dietetics-and-applied-nutrition
Ph.D. in Dietetics & Applied Nutrition	https://www.amity.edu/gurugram/phd-dietetics-and-applied-nutrition
Bachelor of Hotel Management	https://www.amity.edu/gurugram/bachelor-of-hotel-management

Amity Medical School publishes AMI- Health Digest to record the work done by students and faculty members in the field of research and community engagement.



PUBLICATIONS

CLINICAL STUDIES AND DIET PLANS FOR COMMON DISEASES



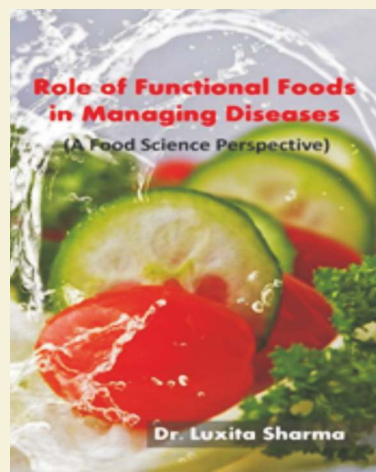
ISBN: 9386768712

Author: Dr. Luxita Sharma

Publisher: Wiley & IK International Press

Publication Date: 1 November 2020

ROLE OF FUNCTIONAL FOODS IN MANAGING DISEASES (A FOOD SCIENCE PERSPECTIVE)



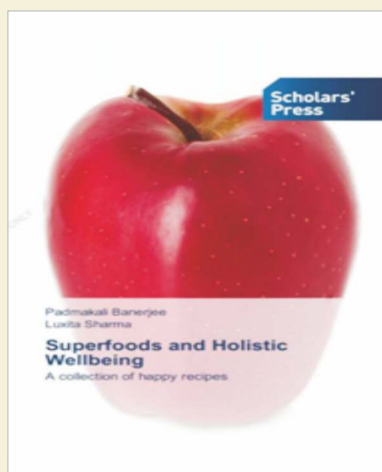
ISBN: 9789390307210

Author: Dr. Luxita Sharma

Publisher: Educreation Publishing

Publication Date: 12 August 2020

SUPERFOODS AND HOLISTIC WELLBEING A Collection of healthy recipes



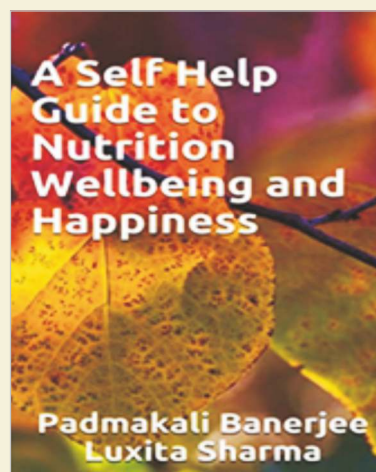
ISBN: 6138943155

Authors: Prof (Dr) Padmakali Banerjee and Dr. Luxita Sharma

Publisher: Scholar's Press

Publication Date: 22 October 2020

A SELF HELP GUIDE TO NUTRITION WELLBEING AND HAPPINESS



ISBN: 6138943155

Authors: Prof (Dr) Padmakali Banerjee and Dr. Luxita Sharma

Publisher: Kindle Edition

Publication Date:

PATENTS PUBLISHED BY FACULTY MEMBERS

Patent published by
Dr. Luxita Sharma

Title:
Probiotic Bread Spread and its method thereof

(12) PATENT APPLICATION PUBLICATION	(21) Application No.201911010648 A
(19) INDIA	
(22) Date of filing of Application :19/03/2019	(43) Publication Date : 25/09/2020
<hr/>	
(54) Title of the invention : PROBIOTIC BREAD SPREAD AND ITS METHOD THEREOF	
<hr/>	
(51) International classification	:H01M0010440000, G11B0017049000, G03G0015080000, A24D0003060000, B65D0006220000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA
<hr/>	
(57) Abstract :	
The present invention relates to a method of khoa based low calorie, low fat, antioxidant rich and probiotic bread spread beneficial for people. The invention provides the khoa based probiotic based bread composition and its method of preparation.	

Patent published by
Dr. Luxita Sharma

Title:
A fibre rich ketchup using Lotus Stem infused with flavonoids

(12) PATENT APPLICATION PUBLICATION	(21) Application No.201911042621 A
(19) INDIA	
(22) Date of filing of Application :21/10/2019	(43) Publication Date : 23/04/2021
<hr/>	
(54) Title of the invention : A FIBER RICH KETCHUP USING LOTUS STEM INFUSED WITH FLAVONOIDS	
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(51) International classification	:A23L0033105000, A23L0033160000, A23L0033150000, A23L0013600000, A61K0036620000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA
<hr/>	
(57) Abstract :	
The present invention relates to the fiber rich ketchup using lotus stem infused with flavonoids. Different ingredients like lotus rhizome, trikatu herb and T. tetrapetetera were used in different combinations to get best blend of taste. The ketchup is provided with unique health benefits as well as loaded with many vitamins and minerals. The present invention provides fiber rich ketchup loaded with flavonoids which helps in relieving GI tract disorders.	

FOOD FOR COMMUNITY

The AUH campus keeps tracks on the food wasted in campus canteens and cafeterias. The average quantity of food uneaten by campus catering services was 40 kg/day, they started distributing this left out food to nearby slum area from 2016. Amity students club Saakar regularly organizes food drives with Robin Hood Army with mission Zero Hunger to comply with the basic tenets of SDG 2 Mission-4 million was another milestone achieved by Saakar with Robin Hood Army. They distributed food

packets to poor and needy people. Such initiatives are part of students' club activities at Amity University Haryana. Amity Medical School takes initiative in educating the local community regarding malnutrition, how to cook nutritious foods for children and pregnant and lactating mothers, create awareness regarding the foods required for various diseases. Dr Luxita Sharma received award for her contribution to educate the community.

ASIAN EDUCATION AWARDS FOR CONTRIBUTION TO EDUCATION COMMUNITY

was conferred upon **Dr. Luxita Sharma** in recognition of continuing excellence in teaching



Award received by faculty for community education



HEALTHY AND AFFORDABLE FOOD CHOICES

Amity University Haryana Faculty of Nutrition and Dietetic keep a track of healthy, quality and hygiene food on campus to maintain healthy and active life for campus students as well near by local villages. Amity School of Hospitality Management helps in organizing catering services comprising fresh, nutritious, and healthy food during various events held on campus ranging from Convocation, Innovation Day, Sangathan, Orientation of Fresh Batches, etc. Campus has 8 catering

service points as listed below to ensure that nobody goes without food.

<https://www.amity.edu/gurugram/cafeteria-and-food-courts>

1. Rupeats (Mess)
2. Cook House (Cafeteria)
3. Sanskriti (Cafeteria)
4. Deja Brew (Cafeteria)
5. Military Canteen
6. Hashtag (Food Van)
7. Dosa Plaza
8. Fruit & Juice Shop



Typical One Deluxe Thali price in cafeterias across the campus = Rs. 90/- (approximately \$1 for a nutritious vegetarian meal). Menu and prices decided after discussion with university administration, student representatives & cafeteria vendors. Amity campus serves only vegetarian food. There is a variety of nutritious food, fruit juices, and shakes, and hot/cold beverages. The cafeterias on campus also comply with strict hygiene guidelines as prescribed by university administration.

There are three cafeterias, Fruit juice shop and a food Truck located in and near the Academic Blocks for easy access. In the Hostel complex there is a Cafeteria, Mess



and Food Court with Dosa Plaza to cater to Hostellers. All the eateries operate from 0800 hrs to 2130 hrs every day. Every Hostel Block has Tuck shop operating up to 2330 hrs. A Snack vending machine in each hostel block facilitates the hostellers 24x7.



ETHICAL AND SUSTAINABLE FOOD PURCHASES

The AUH campus has agriculture land which produces organic vegetables, fruits, wheat and cereals, pulses, spices, herbs and herbal plants. Additionally, the campus has a 'Dairy Farm' having around 94 cows of different variety like HF ,HF Mix , Jersey ,

Jersey Mix Gir, Sahiwal etc and have daily production of milk around 180-190 liter per day which is consumed by university faculty, students and also by nearby people of university.



Variety of cows in the dairy farm at AUH

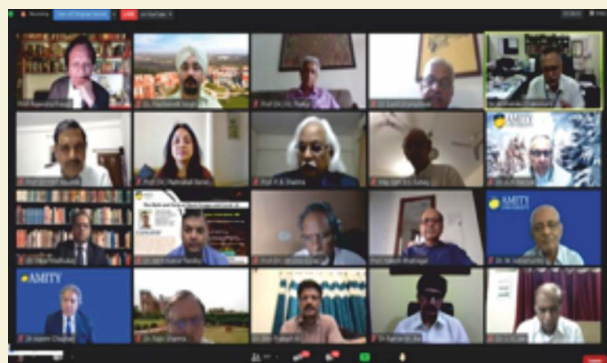
In the cowshed there is a 3 cubic meter capacity biogas digester, which converts the cow dung into Biogas, which is used for cooking. Besides this, the bio slurry that is produced by this process is an excellent organic fertilizer and it improves soil and crop yields in the organic agriculture fields of the university. A biogas operated Bio-Lamp is installed in the dairy farm for lighting in the organic vegetable garden.



Inauguration of Bio-light at AUH, 6th Aug 2021

EVENTS AND SOCIAL OUTREACH

Webinar on “The Myth and Facts of Black Fungus and COVID-19”, 12th June 2021

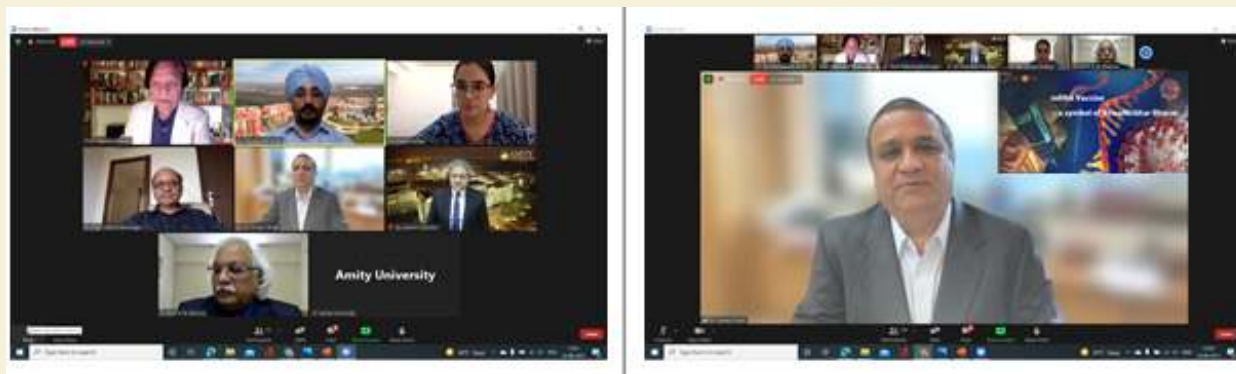


A webinar on potentially fatal fungal infection called mucormycosis, popularly known as “black fungus organized by AIB & AIISH on 12-06-2021. The Speaker was Dr. Arunaloke Chakrabarti, President, International Society for Human and Animal Mycology

Industry connect talk on “From Nature to Product: Stages of Nature based Drug Discovery & Development” by Dr A. Varshney, Patanjali Research Institute, 25th March 2022.

A scientific talk on development of Drug Discovery and Development organized by AIB & AIISH on 25-03-2022. The Speaker was Dr. Anurag Varshney, Vice President Drug Discovery, Patanjali Research Institute.

Webinar on “mRNA Vaccine is the symbol of AtmaNirbhar Bharat”, 14th August 2021



A scientific talk on development of mRNA vaccine against COVID-19 organized by AIB & AIIISH on 14-08-2021 The Speaker: was Dr. Sanjay Singh, CEO, Genova Biopharmaceuticals Ltd.

SOCIAL AWARENESS PROGRAM ON MALNUTRITION IN CHILDREN

organized by

Amity Medical School under Unnat Bharat Abhiyan, 9th Dec 2021

The event was organized by Dr Subhra Das on 9th December 2021 along with other faculty members of department of Dietetics and Applied Nutrition Ms Richa singh, Ms Deepika Pal & Ms Deepika Dhawan and students - Bhavika Kalra, Anchal Shrotria, Yashika Dua (M.Sc. Dietetics & Applied Nutrition I Semester). The program started with a brief introduction of all the members, introduced by Dr. Shubra Das. The participating students gave their presentation on malnutrition to the village people. The presentation involved students explaining about what is Malnutrition and how prevalent it is in India. Different methods of detecting malnutrition in children were also discussed. All the three students gave the presentation in hindi, which was further explained by Ms. Richa

Singh in a comprehensive manner. The presentation session ended with a query session, in which the questions of the villagers were addressed.



Students giving the presentation about nutrition and it's importance.



Children and women participating for the event at Fazalwas village

Nutritional Management in Malnutrition and Anemia among women and Children at Village Pukharpur (Fakharpur) Panchgaon organized by Amity Medical School under Unnat Bharat Abhiyan, 22nd March 2022

The event was organized by Dr Subhra Das on 22nd March 2022 along with faculty members of Ms Deepika Pal and 17 students of M.Sc. Dietitics & Applied Nutrition II Semester. The program started with a brief introduction of all the members, introduced by Dr. Shubra Das. The participating students (Ms Shivani & Ms Sanjana) explained about the malnutrition with the help of teaching aid to the village people. Different methods of detecting malnutrition in children were also discussed. Their BMI were also calculated

with the help of weight and height, weight was measured by weighing machine and height by measuring tape for assessing their health status. The next topic Anemia with their cause, symptoms and management was explained by the Meenu & Vaishnavi. All the teaching Aids were prepared in hindi for easy understanding. The session ended with a query session, in which the questions of the villagers were addressed. Finally, feedback forms were distributed and response of the audience was noted. A number of old ladies seemed happy with the program and personally appreciated the organizers. The event culminated with a note of thanks from Dr. Subhra Das where she expressed gratitude to all the people for their time. So, It was great learning experience for the students as well as for the villagers.



Students explaining about anemia with the help of teaching aid.



Group picture of faculty, students and Villagers at the venue



Students explaining about malnutrition and importance of Balanced Diet



AMITY
UNIVERSITY
HARYANA

NAAC 'A'
GRADE
ACCREDITED UNIVERSITY

REPORT ON SUSTAINABLE DEVELOPMENT GOAL

3 GOOD HEALTH
AND WELL-BEING



YEAR 2021-22



PREAMBLE

Ensuring healthy lives and encouraging wellbeing at all ages are the targets of Sustainable Development Goal 3 (SDG 3), which aspires to attain universal health coverage. Amity University Haryana is committed to improving the community's well-being and organizes social awareness programmes and community-serving events. The three institutes of the Faculty of Health & Allied Sciences-Amity Medical School, Amity College of Nursing, and Amity College of Pharmacy-as well as the two institutes of the Faculty of Science, Engineering & Technology-Amity Institute of Biotechnology and Amity School of Applied Sciences-offer a wide range of academic courses, research opportunities, and outreach initiatives in alignment with the SDG 3's goal- Good Health & Wellbeing. Our skilled paramedical workers apply their knowledge and dedication to improve the quality of care for patients, which makes them essential to the global healthcare system. For working healthcare professionals, the university provides courses in clinical research, public health, stem cell technology, and other subjects that are quite helpful for improving the health care system of the nation.

By recognizing the critical role played by paramedical professionals and the educational transformation that Amity University Haryana offers, we establish the groundwork for a healthcare system that is not only strong, but comprehensive, extending its beneficial impact throughout the world.

With the following initiatives, the university has made great progress towards SDG-3, Good Health, and Well-Being:

- Organizing events for outreach, education, research, and extension activities.
- Establishing partnerships at the local, national, and international levels within the Faculty of Health and Allied Sciences to enhance the success of medical and paramedical education, coordinating regular student-led events within the faculty.
- Designing the academic programme to foster students' professional development and equip them with industry-relevant knowledge and skills through an industry-integrated curriculum.



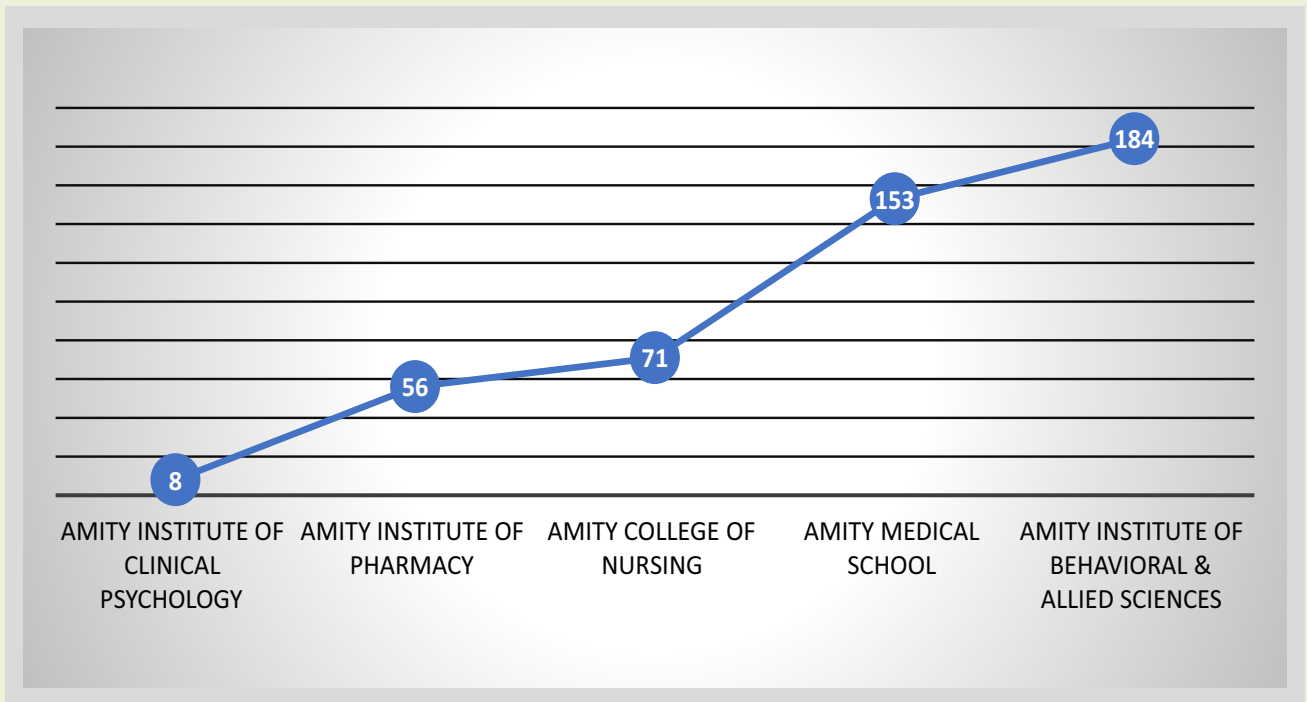
- Working with hospitals, corporations, NGOs, and wellness organisations to organise initiatives like blood donation camps and first-aid classes.

TEACHING AND LEARNING

University offers 30 programs in alignment with SDG3 mentioned below in table.

S.No	Programes	School/Institute
1	B.Sc. (Clinical Psychology)	Amity Institute of Behavioral & Allied Sciences
2	B.A. (Hons) - Applied Psychology	
3	M.A. (Applied Psychology)	
4	M.A. (Counselling Psychology)	
5	M.Sc. (Clinical Psychology)	
6	Master of Social Work	
7	M. Phil (Clinical Psychology)	Amity Institute of Clinical Psychology
8	B.Sc. (Hons) - Biotechnology	Amity Institute of Biotechnology
9	B.Tech (Biotechnology)	
10	M.Sc. (Biotechnology)	
11	M.Tech (Biotechnology)	
12	B.Sc. (Hons) Biological Science	
13	M.Sc. (Data Sciences)	
14	B. Sc Nursing	Amity College of Nursing
15	M. Sc Nursing	
16	Post Basic Nursing	
17	Bachelor of Pharmacy	Amity Institute of Pharmacy
18	Bachelor of Audiology & Speech Language Pathology#	Amity Medical School
19	Master of Hospital Administration (MHA)	
20	B.Sc. (Dietetics & Applied Nutrition)	
21	Master of Optometry	
22	Master of Optometry (M.Optom) Practitioner	
23	Bachelor of Optometry	
24	M.Sc. (Dietetics & Applied Nutrition)	
25	Master of Public Health	
26	M.Sc. (Clinical Research)	
27	B.Sc. (Medical Lab Technology)	
28	M.Sc. (Medical Lab Technology)	
29	B.Sc. in Molecular Medicine & Stem Cell Technology (MMSCT)	
30	M.Sc. in Molecular Medicine & Stem Cell Technology (MMSCT)	

NUMBER OF GRADUANDS IN 2021-22



Graphical representation of students graduated in 2021-22 with programs in alignment with SDG 3

RESEARCH CONTRIBUTION

Research holds a pivotal and substantial role within the healthcare system, furnishing critical data on risk factors, disease prevalence rates, trends, and the outcomes of public health initiatives. Research has always been given top priority at Amity University Haryana with the goal of providing creative and scientific answers to medical and social issues. High-Caliber research appears to be conducted in the Departments of

Nutrition, Optometry, Audiology, Speech Language Pathology, Nursing, Psychology, and Pharmacy, according to a number of research articles that have been published in Scopus and Web of Science journals. Additionally, students actively engage in community-based surveys as part of their dissertations or academic practices, all with the explicit aim of enhancing community health and fostering innovation.

a. Few of the high impact publications in alignment with SDG 3 are

S.No	Name of Author	Title of the Paper	Title of the Journal	Year	Impact Factor
1	Anuradha Kirtonia , Kavita Gala , Stina George Fernandes , Gouri Pandya1, Amit Kumar Pandey , Gautam Sethi ,Ekta Khattar, Manoj Garg	Repurposing of drugs: An attractive pharmacological strategy for cancer therapeutics	Seminars in Cancer Biology	2021	15.707
2	Pandya G., Kirtonia A., Singh A.,Pandey A.K., Kapoor S., Tandon S., Sethi G., Garg M	A comprehensive review of the multifaceted role of the microbiota in human pancreatic carcinoma	Seminars in Cancer Biology	2021	15.707
3	Vedagopuram Sreekanth, Animesh Kar, Sandeep Kumar, Sanjay Pal, Poonam Yadav, Yamini Sharma, Varsha Komalla, Harsh Sharma, Radhey Shyam, Ravi Datta Sharma, Arnab Mukhopadhyay, Sagar Sengupta, Ujjaini Dasgupta, Avinash Bajaj	Bile Acid Tethered Docetaxelbased Nanomicelles Mitigate Tumor Progression through Epigenetic Change	Angewandte Chemie	2020	15.3
4	Harrys Kishore,Charles Jacob, Rossana Signorelli, John Lalith Charles Richard, Tyler Kashuv, Shweta Lavania, Ashley Middleton, Beatriz Aguilar Gomez, Anthony Ferrantella, Haleh Amirian, Junyi Tao, Ayse Burcu Ergonul, Melinda Minucci Boone, Marco Hadisurya, Weiguo Andy Tao, Anton Iliuk, Manoj Kumar Kashyap, Monica Garcia-Buitrago, Rajinder Dawra & Ashok Kumar Saluja	Identification of Novel Early Pancreatic Cancer Biomarkers KIF5B and SFRP2 From "First contact" interactions in the Tumor Microenvironment	Journal of Experimental & Clinical Cancer Research	2022	12.65
5	Mishra C.B., Pandey P., Sharma R.D., Malik M.Z., Mongre R.K., Lynn A.M., Prasad R., Jeon R., Prakash A	Identifying the natural polyphenol catechin as a multi-targeted agent against SARS-CoV-2 for the plausible therapy of COVID-19: An integrated computational approach	Briefings in Bioinformatics	2021	11.6

b. Funded Projects with alignment to SDG 3



Project Title- "Fund for Improvement of S&T infrastructure in University and Higher Education Institution (FIST) Programme"

PI: Prof. Rajendra Prasad
Funding Agency: DST FIST
Sanctioned Amount: 16500000



Project Title- "Evaluation antimycobacterial potential of Unani drugs Qurs-e-Sartan Kafoori and Sharbat-eEjaz-A Mechanistic Approach"

PI: Dr. Zeeshan Fatima
Funding Agency: AYUSH
Sanctioned Amount: 4789970



Project Title- "Comprehensive Omics studies to understand the biology of drug resistant Mycobacterium tuberculosis clinical isolates from Arunachal Pradesh"

PI: Dr. Zeeshan Fatima
Funding Agency: DBT
Sanctioned Amount: 4228000



Project Title- "Study of in-depth genetic heterogeneity with respect to resistance and compensatory adaption of MDR Mtb clinically strains inside BM-Mesenchymal stem cells circulating in the North East Region"

PI: Prof. Rajendra Prasad
Funding Agency:
Prof. Rajendra Prasad
Sanctioned Amount: 5435992



Project Title- "Combating topical & medical device-related fungal infections using engineered Anti-fungal hydrogels"

PI : Prof. Rajendra Prasad & Dr. Ujjaini Dasgupta
Funding Agency: DBT
Sanctioned Amount: 8326400



Project Title- "Evaluation of the Nrf2 anti-oxidant response element (ARE) pathway as a promising target for alleviating chemoresistance in treatment of Acute Lymphoblastic Leukemia"

PI : Dr. Munindra Ruwali
Funding Agency: SERB-TARE
Sanctioned Amount: 1830000



Project Title- "Nanotechnology for Healthcare and Environment - Exploring New Horizons"

PI : Prof. Dr Atul Thakur
Funding Agency: FIST DST
Sanctioned Amount: 8400000



Project Title: "Identifying the role of P53 regulated long non-coding RNAs (LncRNAs) by Crispr/Cas9 in ovarian cancer"

PI : Dr. Amit Kumar Pandey
Funding Agency: ICMR
Sanctioned Amount: 5997000



Project Title- "Understanding Wnt Pathway and LncRNAs interaction for the identification of novel therapeutic targets in triple-negative breast cancers"

PI : Dr. Amit Kumar Pandey
Funding Agency: DST
Sanctioned Amount: 3778179



Project Title- "Mitigating the impact of antifungal resistance in the emerging pathogen candida auris by piggybacking its peptide permease as an antifungal delivery system"

PI : Dr. Atanu Banerjee
Funding Agency: SERB
Sanctioned Amount:3232312



Project Title- "Fabrication of the portable low cost point-of-care optical device for the screening of thalassemic carrier"

PI : Dr. Ranjita Ghosh Moulick
Funding Agency: DST
Sanctioned Amount: 1460000



Project Title- "Unraveling the molecular mechanism of LncRNAs involvement in Glioblastoma"

PI : Dr. Amit Kumar Pandey
Funding Agency: DST-RSF
Sanctioned Amount: 7174032



Project Title- "Experimental validation of pre-identified candidate genes regulating protein storage in chickpea seeds"

PI : Dr. Kaustav Bandyopadhyay
Funding Agency: SERB
Sanctioned Amount: 3199735



Project Title- "Developing small molecule inhibitors to target non-genomic androgen signaling and elucidating the role of GPR56 in Prostate Cancer"

PI : Dr. Gargi Bagchi
Funding Agency: DST-SERB
Sanctioned Amount: 4637570



Project Title- "Investigating of the role of LncRNA PANDAR in the progression and metastasis of ovarian cancer"

PI : Dr. Amit Kumar Pandey
Funding Agency: ICMR EMR
Sanctioned Amount: 3000000



Project Title:"DHR- Identification of Sphingolipid-based Biomarkers for Triple Negative Breast Cancer (TNBC) and Luminal A Patients and their 72 Clinicopathological Correlation"

PI : Dr. Ujjaini Dasgupta
Funding Agency: ICMR
Sanctioned Amount: 4700000



Project Title- "A low cost portable microfluidics embedded on chiprRT-PCR and microelectrode array coupled point-of care optoelectronic device for large scale screening of emerging viral disease like SARS COV2"

PI : Dr. Ranjita Ghosh Moulick
Funding Agency: BIRAC, DBT
Sanctioned Amount: 9000000



Project Title- "PG Teaching in Biotechnology (M.Sc. in Biotechnology)approved by DBT for GAT-B national based admissions"

PI : Prof. Rajendra Prasad
Funding Agency: DBT for GAT-B national based admissions
Sanctioned Amount: 13000000



Project Title- "Fabrication of Realtime in planta biosensors for presymptomatic detection of heavy metal toxicity"

PI : Dr. Ranjita Ghosh & Dr. Kaustav Bandyopadhyay
Funding Agency: DBT,
Sanctioned Amount: 6500000 (Proposed)



Project Title- "To study the dynamics of sickling inside blood capillary mimicking microfluidic system to fabricate a portable point-of-care electronic device for the detection of sickle cell disease"

PI : Dr. Ranjita Ghosh Moulick
Funding Agency: ICMRASET
Sanctioned Amount: 1000000



Project Title- "Human lacrimal gland regeneration: a study of the existing technological advancements and development of next generation solutions by tissue engineering and regenerative medicine"

PI : Dr. Vimal Kishor Singh
Funding Agency: SERB
Sanctioned Amount: 4367888



Project Title- "Differential Inhibition of Visfatin-PAK4 as a Novel Strategy in Esophageal Squamous Cell Carcinoma for Therapeutic Purpose"

PI : Dr. Manoj K Kashyap & Dr. Suresh Kr. Kalangi
Funding Agency: ICMR
Sanctioned Amount: 4500000



Project Title- "Identification of biomarker candidate for early diagnosis of myocardial reperfusion injury and reoccurrence centralizing GSK3β using metanalysis"

PI- Dr. Arun Kumar, Dr Satish Sardana
Funding Agency: ICMR EMR
Sanctioned Amount: 4900000



Project Title- "Development of onspot diagnostic kit for COVID19 based on RT-LAMP Integrated CRISPR-Cas technique"

PI- Dr. Saif Hameed & Dr. Zeeshan Fatima
Funding Agency: BRNS
Sanctioned Amount: 1656550





Project Title- "DBT-BUILDER Level I.

PI : Dr. Rajendra Prasad
Funding Agency: DBT
Sanctioned Amount: 1.6 Crore



Project Title- "A Mass Spectrometric Approach to Unravel the Landscape of Sphingolipids as Major Signaling Determinants of Drug Resistance and Virulence in Emerging Human Fungal Pathogen *Candida auris*."

PI- Dr Rajendra Prasad
Funding Agency: DBT
Sanctioned Amount: 8425600



Project Title- "Novel Nanoarchitectures for selective multistep catalysis"

PI- Dr. Anirban Das
Funding Agency: SERB, DST
Sanctioned Amount: 1830000



Project Title- "DBT Skill Vigyan Programme under state partnership in Life Science and Biotechnology"

PI- Dr Rajendra Prasad
Funding Agency: DBT
Sanctioned Amount: 12300000



Project Title- "Regulation of ribosome biogenesis and SOS response by cyclic di-AMP in *Mycobacterium*"

PI : Dr .Krishna Murari Sinha
Funding Agency: SERB
Sanctioned Amount: 5786258



Project Title- "Insights into the efflux pump arsenal of the emerging pathogen *C. auris* and its implication in high order of antifungal resistance and virulence"



PI : Dr. Rajendra Prasad & Dr. Atanu Banerjee
Funding Agency: DBT
Sanctioned Amount: 5489236



Project Title- "Defining the role of nutrient-sensitive O-GlcNAc modification in Hepatocellular Carcinoma"

PI : Dr. Vaibhav Kapuria
Funding Agency: SERB
Sanctioned Amount: 3000000



Project Title- "Elucidation of the Role of UDP-Glucose Ceramide Glucosyltransferase (UGCG) in mTORC2- Mediate Regulation of Sphingolipid Biosynthesis."

PI : Dr. Ujjaini Das Gupta
Funding Agency: DBT
Sanctioned Amount: 4400000



Project Title- "Capacity Building and Personality Development Program (PDP) for female undergraduate and Postgraduate students at AUH"

PI : Dr. Rajesh Nair
Funding Agency: National Commission for Women
Sanctioned Amount: 150000



Project Title- "Elucidating the role of post-transcriptional regulation of sphingolipid metabolic genes in breast cancer progression."

PI : Dr. Ujjaini Das Gupta
Funding Agency: SERB
Sanctioned Amount: 6980724



Project Title- "Development of biomimicking polymeric scaffolds for accelerated wound healing and sustained drug release: Preclinical studies in radiation impaired surgical wounds in cancer"

PI : Dr. Deepa Suhag
Funding Agency: ICMR
Sanctioned Amount: 3500000



Project Title- "A study on the problems and conjectures in univalent function theory"

PI : Dr. Navneet Lal Sharma
Funding Agency: SERB, DST
Sanctioned Amount: 2123264



Project Title- "Development of RT-LAMP integrated CRISPR-Cas based rapid and sensitive diagnostic kit for tuberculosis"

PI : Dr. Saif Hameed & Dr. Zeeshan Fatima
Funding Agency: ICMR
Sanctioned Amount: 4200000



Project Title- "Understanding the mutational landscape in different Candida auris clades using a multipronged approach"

PI : Prof. Rajendra Prasad
Funding Agency: ICMR
Sanctioned Amount: 3834200



Project Title- "Mass spectrometry based identification and characterization of mycolic acid lipid biomarkers and their application for development of a lateral flow POC device for tuberculosis diagnosis."



PI : Dr. Zeeshan Fatima & Dr. Saif Hameed
Funding Agency: ICMR
Sanctioned Amount: 5700000



Project Title- "Identification of early diagnostic biomarker for GBM using differential alternative splicing and deep learning"



PI : Dr. Ravi Dutt Sharma & Dr. Amresh Prakash
Funding Agency: ICMR
Sanctioned Amount: 4768526



Project Title- "Identifying and Establishing Bioactive Lipids as Non-invasive Biomarkers for Nonalcoholic Fatty Liver Disease (NAFLD) Progression."

PI : Dr Ujjaini Dasgupta
Funding Agency: ICMR
Sanctioned Amount: 5100000



Project Title- "Development and preclinical Evaluation of Bio-synthetic polysaccharide rich hydrogels as ECM bio-mimics to understand metastatic malrisome in tumor micro environment and predict drug efficacy in 3D tripple negative breast tumor model."

PI : Dr. Deepa Suhag
Funding Agency: ICMR
Sanctioned Amount: 5000000



NEW ASSETS OUT OF PROJECT FUNDS



- AB SCIEX QTRAP 4500 SYSTEM, SCIEX
- Differential Thermal Analyzer
- HPLC, DBT, CAMAG
- AKTA Pure with cold cabinet
- Low Temp shaker/incubator, KUHNER
- HPE DL380 16G 85FF Server, HP Pavilion Laptop (430144TX),
- Centrifuge
- PCR, Eppendorf
- ChemIDoc, BIORAD
- Inverted Research Microscope, CARL ZEISS
- Real Time PCR (3) - EPPENDORF (2), BIORAD (1)
- Fluorescent Microscope, OLYMPUS CORPORATION
- RIUS Spectrometer
- Centrifuge 5804 and Excella E24 bench top incubator, EPPENDORF
- REFRIGERATORS, SANDEEP INSTRUMENTS & CHEMICALS
- MATLAB and Toolbox, INTEGRATED PROGRESSIVE TECHNOLOGY
- CO2 Incubator (4)
- Microscope with camera, OLYMPUS
- Server PowerEdge, DELL THROUGH ARROW PC
- Oxygen Electrode System, HANSATECH INSTRUMENTS, UK
- Nanodrop (2) , Plant growth chamber, DBT, A M BIOTECH
- Freezer (2)
- Incubator, Shaker, Vortex Mixture, LACZENE BIOSCIENCE, LABNET (1)
- Fluorescence Phase Contrast Microscope, TOWA OPTICS INDIA PVT LTD
- Dell laptop, HP laptop,
- -80-degree Freezer, THERMO
- Fast Prep, DBT, MP BIOMEDICALS INDIA PVT. LTD.
- Potentiostat/Galvanostat with Impedance analyzer.
- Vacuum Thermal Coating Unit, SCIENTIFIC & ANALYTICAL INSTRUMENT
- PCR Thermocycler, DISCOVERY BIONICS
- Elisa Reader, BIORAD
- PCR machine, EPPENDORF
- Biosafety cabinet, LABQUIP
- UV Visible Spectrophotometer, PERKINELMER PTE LTD, SINGAPORE
- Ferroelectric Loop Tracer, MARINE INDIA

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S.No	Diary No	Title	Name	Status	Filing date
1	26580/ 2021-CO/L	ONLINE HEALTH AND WELLNESS CLINIC (OHWC)	Tamil Selvi A., Amity College of Nursing, Amity University Haryana. Ph: 9894594932	Registered	1-Nov-21
2	23830/2021-CO/L	RAGI HEALTH DRINK	Prof. (Dr.) Tamil Selvi A, Amity College of Nursing, Amity University Haryana	Registered	1-Oct-21
3	30059/2021-CO/L	IAM HCP	Prof. (Dr.) Tamil Selvi A, Amity College of Nursing, Amity University Haryana	Filed	13-Dec-21
4	32059/2021-CO/L	HOME HOSPITAL (H2) APP'	Prof. (Dr.) Tamil Selvi A, Amity College of Nursing, Amity University Haryana	Filed	31-Dec-21


d) List of PhD recipients whose theses are in alignment with SDG 3

Sl.No.	Degree SI No	Name of Scholar	Enrolment No	Programme	Thesis Title	Year of Completion
1	Ph.D / 0076	Rajesh M	A50217317006	Doctor of Philosophy (Biotechnology)	Isolation, characterization and adjuvant potential of mycobacterium tuberculosis cell wall isolated poly- α -L-glutamine	2021
2	Ph.D / 0082	Ashok Kumar	A50230715007	Doctor of Philosophy (Biotechnology)	Molecular Epidemiology and Resistome in Candida Isolates Recovered from Different Cohort of Patients from Haryana Hospitals	2021
3	Ph.D / 0089	Sharda Sharma	A50217315001	Doctor of Philosophy (Biotechnology)	Antimycobacterial Potential of Vanillin and Geraniol against Mycobacterium	2021
4	Ph.D / 0091	Julie Pratibha Singh	A50217314001	Doctor of Philosophy (Biotechnology)	Identification of Molecular Targets for the Treatment of Prostate Cancer	2021
5	Ph.D / 0092	Shweta Singh	A50230714003	Doctor of Philosophy (Biotechnology)	Antifungal potential of terpenoid and alkaloid compound(s) against human fungal pathogen, Candida albicans	2021
6	Ph.D / 0099	Sunil Kumar Singh Kadyan	A50030312003	Doctor of Philosophy (Management)	Impact of Health Insurance Claim Settlement Procedure on Customer Satisfaction: An Empirical Study in Delhi and NCR	2021
7	Ph.D / 0104	Sonia	A50230715003	Doctor of Philosophy (Biotechnology)	Use of Immunological and Molecular Tools for the Diagnosis of Tuberculous Meningitis	2021
8	Ph.D / 0105	Gunjan Dagar	A50217315003	Doctor of Philosophy (Biotechnology)	Developing High Throughput Reporter Assay for Detection of Endocrine Disruptive Chemicals	2021
9	Ph.D / 0107	Syed Bilal Jilani	A50217317007	Doctor of Philosophy (Biotechnology)	Identification of genes involved in enhancing performance of ethanologenic E. coli in presence of inhibitors	2021
10	Ph.D / 0108	Ishfaq Ahmad Ahanger	A51684716001	Doctor of Philosophy (Biochemistry)	Delineating Aggregation Behavior of Bovine Serum Albumin: A Biophysical Approach to Modulate Protein Aggregation through Co-solutes	2021
11	Ph.D / 0109	Mohit Kumar	A525105717001	Doctor of Philosophy (Integrative Biology)	Sphingolipid Metabolism in Candida Species	2021
12	Ph.D / 0117	Satyam Gupta	A50030315017	Doctor of Philosophy (Management)	Factors for contact lens usage and their impact on user's attitude and its antecedents: A study of the national capital region	2022

e. Trademark that conforms to SDSG3

TRADEMARK FILED (JUL 21 – JUL 22)


S.No	Inventor's Name	Title	Date of Submission	Application No	Response to Examination report e-filed on
1	Atul Thakur, AUH, Manesar.	Nano-Breathe'	10-Aug-21	5082198	09-11-2021



TRADEMARK REGISTERED

Nano-Breathe

By
Prof. Atul Thakur
Director
Amity Institute of Nanotechnology
Amity University Haryana
Gurugram



Application no: 5082198



भारत सरकार
Government of India
विश्व वाणिज्य संस्थान
Trade Marks Registry
नयाँ दिल्ली-110002
Trade Marks Act, 1999

जहाँ यह अधिसूचना प्रकाशित है, उसे जहाँ से यह पता
Certificate of Registration of Trade Mark, Section 27(1)(b), Trade Marks Act, 1999

आवेदन संख्या: Trade Mark No. 5082198 आवेदन तिथि: 10/08/2021 दिनांक: 09/11/2021

आवेदनकर्ता का नाम: Prof. Atul Thakur, Director, Amity Institute of Nanotechnology, Amity University Haryana, Gurugram

आवेदन संख्या: 5082198 दिनांक: 10/08/2021

NANOBREATH

आवेदन संख्या: 5082198 दिनांक: 10/08/2021

आवेदन तिथि: 10/08/2021



GOVERNANCE & MANDATES

The smoking of any substance is not permitted in any of the Classrooms, Faculty Halls or cabins, Hostels, cafeteria, seminar halls, auditoriums, sports ground or any open or closed spaces on the University premises. This also extends to at least 1km radius of the University campus.

Amity University Haryana is committed to fostering the good health and wellbeing of all members of its university community. It aims to reduce pollution and hazardous air pollutants through this prohibition. Medical research confirms the many health risks of smoking and tobacco usage as well as the negative effects of second-hand smoke.

The policy covers all property and vehicles owned, leased, rented, or operated by Amity University

Haryana and includes cigarettes, cigars, pipes, e-cigarettes, dipping tobaccos, snuff, other smokeless tobacco, hookah, marijuana, cannabis, and related electronic and other products.

The policy pertains to everyone associated with the University community including students, employees, contracted service employees, vendors, and visitors. Communication. The policy is published widely through various University outlets and will be included in the Student Handbook and website. Signage indicating that the University is smoke-free and tobacco-free are posted on campus. Existing policies, regulations and penalties governing smoking and tobacco usage inside university property will remain in effect as promulgated.



UNIVERSITY INFRASTRUCTURE

1. Department of Optometry & Vision Science

Mission Vision for Eradication of Preventable Blindness was launched by the Department of Optometry and Vision Science, Amity University Haryana to serve society as Best Practice and part of the curriculum of Optometry and Vision Science. The main aim of this program is to eliminate and prevent Blindness in the Community by providing free eye screening and appropriate management. The Mission statement is "Every citizen enjoys the gift of sight and the visually

challenged have enhanced quality of life as a right."

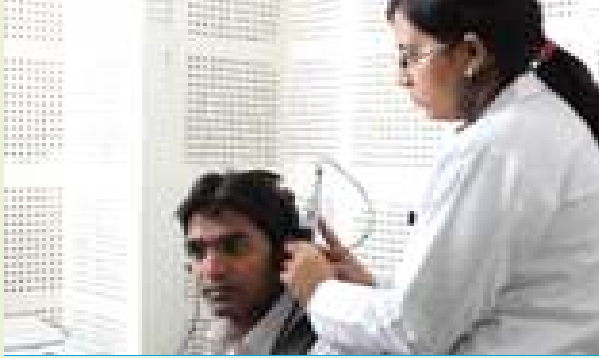
Focused on Four areas:

1. Door-to-door survey.
2. Mobile Eye examination in Van.
3. In-campus Eye Clinic.
4. Surgical intervention where required.

2. Department of Audiology and Speech Language Pathology

The Amity Medical School, Amity University Haryana's department of Audiology and Speech-Language Pathology (ASLP) offers the Bachelor of Audiology and Speech-Language

Pathology (BASLP) degree. It also provides its services to several hospitals, including Artemis Hospital, Medanta Hospital, and Narayana Hospital.



Speech evaluation by ASLP Students at a health checkup camp



Hearing evaluation at ASLP Clinic



Speech therapy session in ASLP Department



ASLP Students in screening camp

3. Mental health support

Amity University Haryana has a dedicated team of faculty counsellors, visiting psychiatrists, and the Amity Institute of Behavioural & Allied Sciences, along with the Counselling & Guidance Cell, to offer free mental health support to students, staff, faculty, and the community in

a safe, friendly, and affirming environment. The University guarantees a caring atmosphere and focuses a high priority on the development of its students. The University has put together several courses aimed at educating students about mental well-being.



Awareness Camp at Fakarpur Village on Prevention of Alcohol Addiction in community



Counselling & Guidance Cell

4. Sexual and reproductive health care services

In cooperation with students' clubs with DRAMEBAAZ and AMOLI SOCIETY FOR WOMEN, SAAKAR, the Youth Social Responsibility Group at Amity University Haryana, under the Dean of Students Welfare, successfully planned the WOMEN EMPOWERMENT MISSION, a two-day

event, on October 7 and 8, 2021. The campaign, spearheaded by young Saakarians, was focused on getting sanitary pads to the impoverished adolescent girls and women in Gurugram. The campaign also aims to raise knowledge of menstruation hygiene and Covid regulations.



Women Empowerment Mission organized by Dean Student Welfare



Nukkad Natak on the male-dominated society's impact on women

5. Medical Insurance:

All students and staff are eligible to avail medical insurance policy covering medical issues requiring hospitalization beyond the on-campus services.

6. Medical & Health Centre:

Amity Medical & Health Centre has a doctor on staff as well as residential paramedics. Through an OPD and a primary healthcare system, it offers help for both physical and emotional health. The facility contains well-equipped general

and emergency wards, staffed around-the-clock by nurses, paramedics with professional training, and an ambulance. Through a clearly defined process, all University members can make use of the services and schedule appointments.

7. Sports Complex

The University has 20-acre sports complex which offers ample opportunities to students for regular work –out, lifestyle management and interaction by providing a host of excellent sports facilities like cricket, football, basketball, lawn tennis, volleyball as well as indoor games like chess, carom, table –tennis, snooker etc. From increasing concentration level and working

as a team to inculcating a winning spirit, sports help students to build a strong character and all-round development. Regular yoga and meditation sessions are organized at the meditation and yoga hall. The University offers other indoor and outdoor sports facilities: horse riding, golf, cricket, basketball, badminton, tennis, football, billiards, etc.



Sports Facilities at Amity University Haryana

EVENTS AND SOCIAL OUTREACH

1. 90th Annual Meeting Of SBCI



90th Virtual Annual Meeting of The Society of Biological Chemists India (SBCI), held at Amity University Haryana, Gurugram. Amity University Haryana (AUH), Haryana organized the 90th annual meeting of The Society of Biological Chemists (SBC), under the theme "Metabolism to Drug Discovery: Where Chemistry and Biology Unite" from 16th to 19th December 2021. The Amity Institute of Biotechnology (AIB), and Amity Institute of Integrative Sciences and Health (AIISH) worked hand in hand to successfully

organize this meeting. Due to the continuing COVID-19 pandemic, the meeting was held entirely on a virtual platform.

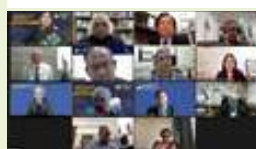
The scientific sessions were spread across four days (16- 19 December, 2021) which included 75 invited talks, 3 award lectures, as well as 4 plenary lectures from eminent scientific figures, 138 scholars presented posters and more than 900 delegates participated online.

90th SBCI in NEWS

<https://www.apnnews.com/amity-university-haryana-3/>

<http://mediabulletins.com/education/amity-university-haryana-organized-90th-annual-meeting-of-the-society-of-biological-chemists-sbc-india/>

Amity University Haryana - FM Live



Amity University Haryana organized 90th Annual Meeting of The Society of Biological Chemists (SBC), India "Metabolism to Drug Discovery: Where Chemistry and Biology Unite" Amity University Haryana (AUH) organized the 90th annual meeting of The Society of Biological Chemists (SBC), under the theme "Metabolism to Drug Discovery: Where Chemistry and Biology Unite" in December 2021. [...]

www.fmlive.in

<http://businessnewsthisweek.com/education/amity-university-haryana-organized-90th-annual-meeting-of-the-society-of-biological-chemists-sbc-india/>

Amity University Haryana organized 90th Annual Meeting of The Society of Biological Chemists (SBC), India | Business News This Week

[December 29, 2021] Amity University Haryana organized 90th Annual Meeting of The Society

BUSINESS NEWS THIS WEEK

A LEADING BUSINESS NEWS PORTAL

of Biological Chemists (SBC), India Education [December 29, 2021] Digit offers one of the lowest waiting periods in health insurance Business [December 29, 2021] Ring in the New Year with Sheraton Grand Pune!

businessnewsthisweek.com

<https://digitalmedia9.com/education/amity-university-haryana-organized-90th-annual-meeting-of-the-society-of-biological-chemists-sbc-india/>

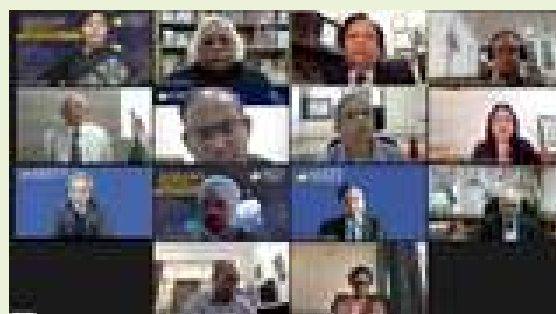
Amity University Haryana organized 90th Annual Meeting of The Society of Biological Chemists (SBC), India | Digital Media 9

“Metabolism to Drug Discovery: Where Chemistry and Biology Unite” Amity University Haryana (AUH) organized the 90th annual meeting of The Society of Biological Chemists (SBC), under the theme “Metabolism to Drug Discovery: Where Chemistry and Biology Unite” in December 2021.

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<https://www.cityairnews.com/content/amity-university-haryana-organized-90th-annual-meeting-of-the-society-of-biological-chemists-sbc-india>

2. Webinar on “Implementation of telepharmacy services during the ongoing COVID-19 pandemic”

A webinar on “Implementation of telepharmacy services during the ongoing COVID-19 pandemic” was organised by Dr. Asim Kumar and Dr. Shrestha Sharma, Amity Institute of Pharmacy (AIP).



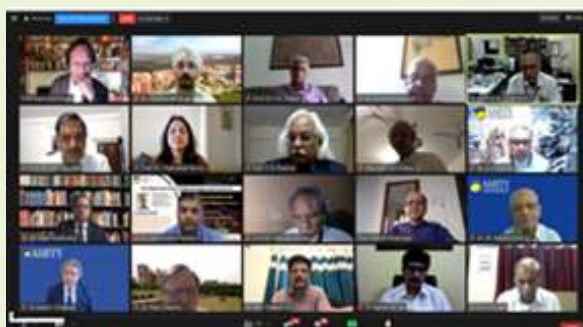
3. Webinar on “mRNA Vaccine is the symbol of AtmaNirbhar Bharat”

A scientific talk on development of mRNA vaccine against COVID-19 organized by AIB & AIISH on 14-08-2021 The Speaker: was Dr. Sanjay Singh, CEO, Gennova Biopharmaceuticals Ltd.



4. Webinar on “The Myth and Facts of Black Fungus and COVID-19”

A webinar on potentially fatal fungal infection called mucormycosis, popularly known as “black fungus” organized by AIB & AIISH on 12-06-2021. The Speaker was Dr. Arunaloke Chakrabarti, President, International Society for Human and Animal Mycology



5. Industry connect talk on “From Nature to Product: Stages of Nature based Drug Discovery & Development” by Dr A. Varshney, Patanjali Research Institute.

A scientific talk on development of Drug Discovery and Development organized by AIB & AIISH on 25-03-2022. The Speaker was Dr. Anurag Varshney, Vice President Drug Discovery, Patanjali Research Institute



The poster features the Patanjali logo on the top left and the Amity University Gurugram logo on the top right. The main title is "Industry Expert Visit and Talk on FROM NATURE TO PRODUCT: STAGES OF NATURE BASED DRUG DISCOVERY & DEVELOPMENT" with the date "Friday, 25th March 2022". A photograph of the speaker, Dr. Anurag Varshney, is shown in a circular frame. To the right, there is an image of natural ingredients and a mortar and pestle. The speaker's name and title are listed below the photo. The event is organized by Amity Institute of Biotechnology and Amity Institute of Integrative Science and Health.

SPEAKER
Dr. Anurag Varshney,
Vice President -
Drug Discovery and Development
PATANJALI RESEARCH INSTITUTE, Haridwar

Convenor:
Prof. Rajendra Prasad, Dean FSET, Director AIB/ AIISH

Coordinators:
Prof. Lakshminarasimhan Krishnaswamy, Professor - AIB
Dr. Machiavelli Singh, Associate Professor - AIB

Organized By: AMITY INSTITUTE OF BIOTECHNOLOGY | AMITY INSTITUTE OF INTEGRATIVE SCIENCE AND HEALTH

6. Amity Medical School coordinated the “Scleral Contact lens workshop”

The Department of Optometry and Vision sciences, AMS, AUH coordinated Scleral Contact lens workshop. This event briefed students about scleral contact lenses and the learning outcomes were based on the hands-on session followed henceforth. 90 students participated in the workshop. The program coordinator was Dr Gaurav Kumar Bhardwaj.



7. Hands on Training on Materials Characterizations, Lipidomic and Proteomics Techniques

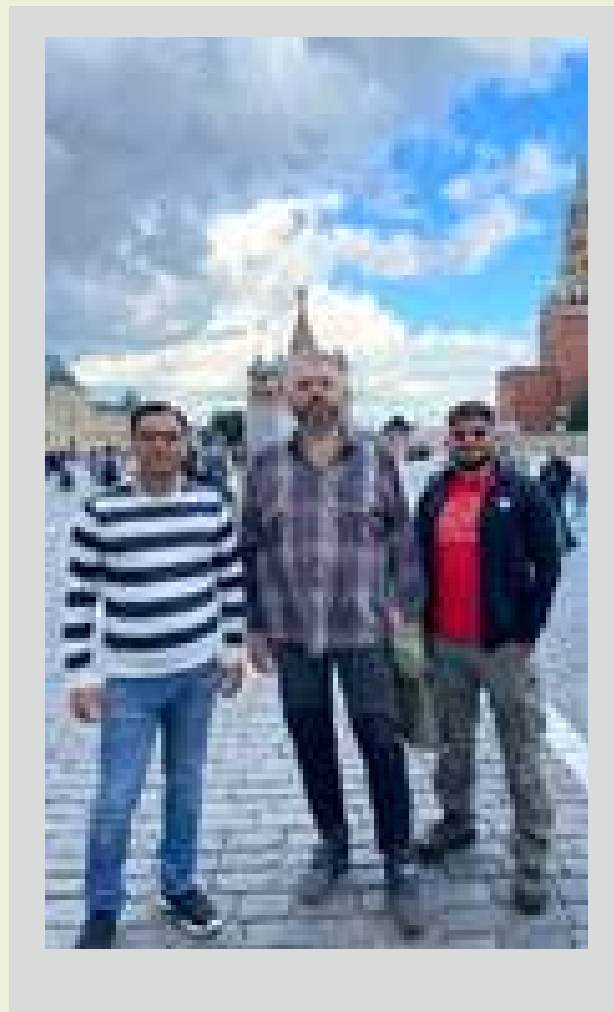
One weeklong “Hands-on Training on Materials Characterizations, Lipidomic and Proteomics Techniques” is being conducted by Amity University Haryana, sponsored by the Department of Science & Technology (DST) under ‘Synergistic Training program Utilizing the Scientific and Technological Infrastructure’ (STUTI).

The Scheme ‘Synergistic Training program Utilizing the Scientific and Technological Infrastructure’ (STUTI) is intended to build human resource and its knowledge capacity through open access S&T Infrastructure across the country. As a complement to the various schemes of DST funding for expansion of R&D Infrastructure at academic institutions, STUTI scheme envisions hands-on training program, sensitization and sharing of the state-of-the-art equipment while ensuring transparent access of S&T facilities. The training is conducted on a hub-and-spoke model approach, where DST as the apex body, identifies an Institute/University that shall function as a Project Management Unit (PMU).



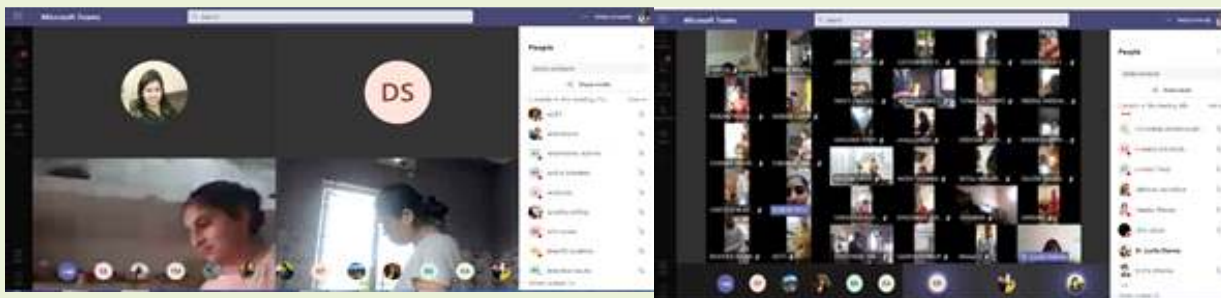
8. AIB's Cancer Biology Researchers visited Russian Academy of Sciences, Moscow

AIB Cancer Biology Scientist Dr Amity Kumar Pandey and Research Scholar Bhupender Yadav visited Moscow, Russia under DST-RSF project from 19 - 29 July 2022. Dr. Amit Kumar Pandey, Assistant Professor, AIB along with Mr. Bhupender Yadav, JRF visited Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry of the Russian Academy of Sciences, Moscow for scientific discussion on the ongoing international research grant "Unraveling the molecular mechanism of lncRNAs involvement in Glioblastoma (DST-RSF)". The visit was from 19th to 29th July 2022. The Russian host was Dr. Yury Rubstov, Senior Researcher Molecular Oncology Lab at Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry of the Russian Academy of Sciences 117997, Russian Federation, Moscow, GSP-7, Ulitsa Miklukho-Maklaya, 16/10. The delegation also interacted with the Prof. Alexander Gabivov, Director, Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, and discussed the possibility of student exchange program.



9. Live Healthy Recipe Making Contest:

The Department of Dietetics and Applied Nutrition, Amity University Haryana, organized an online Live Recipe Competition by Nestle Maggi on 23rd September 2021 as a part of celebrating National Nutrition Month (POSHAN MAAH).



Recipe Competition organized by Nestle Maggi on Poshan Maah

10. Colorful Food Plate:

Department of Dietetics and applied nutrition organized a recipe competition with the theme "Cook Without Fire Recipe Competition" on 19th April 2022 in which students displayed delectable recipes without the need for conventional cooking methods.



Cook Without Fire Recipe Competition

11. Eye Screening Camp /Anti Doping (Education and Awareness):

The Department of Optometry and Vision Science undertook a distinguished initiative by organizing an Eye Screening Camp and an educational Anti-Doping program to strengthen health promotion and education in the field of eye care.



Assessment of binocular vision

12. Speech and Hearing camp:

Camp for hearing and speech screening on World Hearing Day Organized by Amity Medical school, Haryana.

Point wise highlights of the Event:

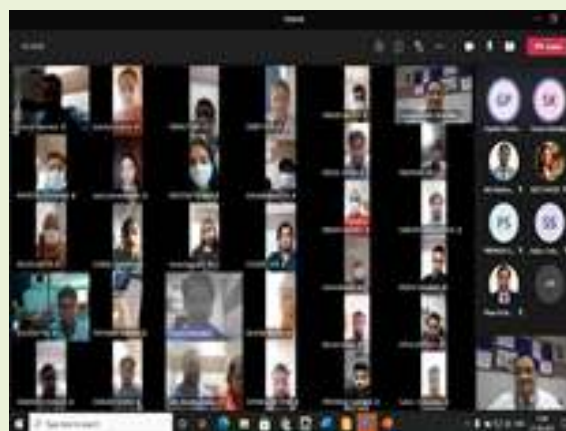
- Speech and Hearing Screening through questionnaire- 200 students,
- Tuning fork Test based hearing screening and Otoscopic examination.
- Number of children shortlisted for details assessment at AUH clinic. – 21 Students (11 students for Audiological evaluation and 10 for speech evaluation).



Speech and Hearing camp on World Hearing Day

13. Incorporating Binocular Vision Assessment and Vision Therapy into Clinical Practice:

Session organized by Department of Optometry and Vision Science, AMS, Amity University Haryana was organised on 27th -09-2022.



Binocular Vision Assessment and Vision Therapy

14. Visit to Anganwadi:

Department of Public Health, AMS organised a tour of Anganwadi center for the benefit of the students. Due to the pandemic the students were deprived of field exposure and hence this event gave them an understanding regarding the ground realities of the government programs such as Integrated Child development Schemes and its implementation challenges.

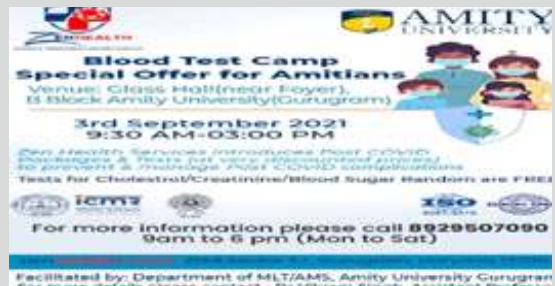


Visit to Anganwadi Centre

15. Blood Test camp:

The Department of Medical Lab Technology orchestrated a Blood Test Camp on September 3, 2021, with the following aims:

1. To offer fundamental medical laboratory testing services to both students and staff members.
2. To extend a community-wide platform for specialized lab investigations at reduced rates.
3. To serve as a diagnostic platform for the identification of COVID, diabetes, and cardiovascular events, providing complimentary testing for blood sugar, cholesterol, and blood pressure.



Blood Test Camp

16. Blood Donation Camp:

A blood donation camp was organized by the Department of Medical Lab Technology on 10 March 2022.



Blood Donation Camp

17. Faculty Development Program:

The faculty development programme (FDP) "Integrative Biology: from molecules to the ecosystem in health and medicine" was conducted on 02-Aug-21 by Amity Institute of Biotechnology. The participant learnt and the sole purpose of the FDP was to educate faculty members from within and outside

the University on recent trends of integration of various disciplines into biomedical sciences. 07 faculties from our university and 30 faculties from other universities registered for this program and as evident from the feedback, most of them have benefited from the event.

18. Seminar:

The Seminar "An Interactive Session on Thalassemia Screening with eminent Bollywood star Mr. Jackie Shroff" was conducted on 11-May-22 by (DSW) Dean Students and Welfare. The event spread awareness regarding Thalassemia Blood Disorder.



19. Guest Lecture:

The Guest Lecture "Recent Advances in the quality control of Herbal Drugs" was conducted on 17-Aug-21 by Amity Institute of Pharmacy. The students learnt the nuances of various methodologies using herbal drug standardization.

20. Orientation Program:

The Orientation Program "New Challenges and Opportunities in Aerosol Pollution Research: An Indian Perspective" was conducted as on 20-Sep-21 by the Amity Centre for Ocean Atmospheric Science & Technology (ACOAST). The participants Gained knowledge about the utilization of satellite AOD data for health hazard studies.

21. Student Activity:

The Students Activity "Pharmacy: Always Trusted for Your Health" was conducted on 25-Sep-21 by Amity Institute of Pharmacy. The Event was to impart contemporary knowledge, to the students, enhance their soft skills ability, enhance their presentation skills and to develop their aptitude skills regarding various issues pertaining to the Pharmaceutical Sciences.

22. Webinar:

The Webinar "Incorporating Binocular Vision Assessment and Vision Therapy into Clinical Practice" was conducted on 27-Sep-21 by Amity Medical School. The participants gained knowledge of how to implement vision therapy and binocular vision assessment in every clinical practice with minimum tools and investments.

23. Society Outreach Program:

The Society Outreach Program "I Health camp for older persons" was conducted on 01-Oct-21 by Amity Collage of Nursing. The participated Students learnt on proper way of conducting Health camp by making stations and labelling them with directions. Students also learnt the coordination in conducting health awareness programme.

24. Expert Talk:

The Expert Talk "Investment in mental Health: Great Asset" was conducted on 11-Oct-21 by Amity Collage of Nursing. The participated Faculty and Students learnt Teacher mental health issues are important because they not only have a detrimental influence on teachers themselves but also directly affect classroom outcomes. To tackle the crisis head-on, school leaders need to build open and supportive wellbeing cultures. The session helped teachers to promote their mental health for an effective teaching learning process.

25. Society Outreach Program:

The Society Outreach Program "Theme: Pharmacist: An Integral Part of Healthcare" was conducted on 21-Nov-21 by Amity Institute of Pharmacy. The participated Learnt Students as budding pharmacists learnt their duty and role as an essential component of the future healthcare system.

26. Society Outreach Program:

The Society Outreach Program "Camp for hearing & Speech Screening" was conducted on 24-Dec-21 by Amity Medical School. The participated Learnt This Camp provides an opportunity to the students to perform specific diagnostic test on the children.

27. Society Outreach Program:

The Camp "Speech and Hearing camp at AUH Gurgaon." was conducted on 03-Mar-22 by Amity Medical School. The participated Learnt about the how to screen large no. of participants.

28. Blood Test Camp:

The Camp "Blood Test Camp was conducted on 10-Mar-22 by Amity Medical School. MLT Students participated in this event learnt about blood test and its clinical relevance.

29. Guest Lecture:

The Guest Lecture "Molecular Beacons for Clinical Diagnostics and Imaging mRNAs in Live Cells" was conducted on 21-Mar-22 by Amity Institute of Biotechnology. The participated students were introduced to the state-of the art single molecular detection methods to study mRNA traffic in nucleus, Intracellular Venues of mRNA splicing, mRNA synthesis etc.

30. Workshop:

The Workshop "Workshop on continuing nursing education on Palliative Care in Collaboration with Can Support, NGO, Delhi." was conducted on 24-Mar-22 by Amity Collage of Nursing. All the students and faculties could learn in detail about palliative care and how to manage these patients effectively.

31. Blood Donation Camp:

The Camp "Blood Donation Camp by Red Cross Society and Thalassemia India" was conducted on 11-May-22 by Amity Collage of Nursing. The outcome of the event is many students and employees donated the Blood to save the lives of others.

32. Industry Visit:

The Industrial Visit "Clinical Research Exposure in Hospital" was conducted on 16-May-22 by Amity Medical School. CR Students participated in this event learnt about how to conduct Clinical trials and clinical research along with the future opportunities in the field of clinical research and health care centre.

33. Society Outreach Program

The Society Outreach Program "Management of tobacco addiction and menstrual psychosocial issues" was conducted on 2-May-22 by Amity Institute of Clinical Psychology. Sensitized participants about Tobacco use and Menstruation cycle.

34. Society Outreach Program:

The Society Outreach Program "Mental Health Issues among employees" was conducted on 05-May-22 by Amity Institute of Clinical Psychology. The Students Learnt overview of mental health among employees in different types of industries. The issues discussed were stress, anxiety, Alcohol addiction, safety and security, gender difference, working hours, sleep disturbance, working environment, organizational culture, company policy and promotion.

COLLABORATIONS, AWARDS & RECOGNITIONS

Partnering with Industries/other research organizations allows universities to conduct networking events which are extremely important for students' career prospects. Memorandums of Understanding (MoUs) and partnerships expose students to real-world industry environments and challenges they may encounter after graduation. Such collaborations offer access to

expertise and innovation, an extension of resources, and a sharpening of competitive benefits to both bodies involved. Students benefit from internships, summer training, and valuable research experience through such agreements. Additionally, industry specialists regularly share their expertise with students through guest lectures and expert presentations.

Faculty Recognitions in alignment with SDG 3

Institute	Faculty Name	Award	Awarding body	Year
AMS	Dr Luxita Sharma	AWARD - Excellence in Outstanding accomplishment	IAPEN - Indian association of Parenteral and Enteral Nutrition	2021
AMS	Dr. Luxita Sharma	MGA Award (National Nutrition Icon Award)	Mahanagar Global Achievers Award Session 5	2021
AIB	Ms. Manisha Dagar	The Herbert Tabor Award	The Herbert Tabor, The Journal of Biological Chemistry presents the JBC Herbert Tabor Early Career Investigator Award	2021
AMS	Dr. Luxita Sharma	Token of Appreciation as a Chairperson	Sarvodya Hospital & Research centre Faridabad	2021
ASAS/AUH	Dr. Dipti Vaya	Resource Person in Certification Course	Certificate Course on Industrial Waste Management organized by St Xavier College Mumbai	2022
AMS/DAN	Dr. Luxita Sharma	An award in Excellence in Outstanding Accomplishment	Excellence in Outstanding Accomplishment has been conferred upon by Indian Association of Parenteral and Enteral Nutrition (IAPEN) India Association	2022

Institute	Faculty Name	Award	Awarding body	Year
AIB	Dr. Amit Kumar Pandey	Best Oral Presentation	Ram Nath Hiralala Jaju Award for best Oral Presentation by Mid-Level Scientist	2022
AIB	Dr. Chandramani Pathak	Reviewer Recognition Certificate	This certificate is awarded to for serving as a reviewer for Cancer Reports, Willey	2022
AIP	Dr Rupali Sharma	Young Scientist Award	Extraordinary work in the field of Healthcare on 11th June 2022 at MP Council of Science & Technoogy, Bhopal, MP	2022
ACOAST/ ACESH	Prof. Dr. P.C.S. Devara	Work Agreement (MoU) between NASA-AERONET, USA and AUH, Gurugram, India	NASA, Greenbelt, MD, USA	2022
AIB	Dr. CM Pathak	International Scientist Awards on Engineering, Science and Medicine INSO 2022	Coimbatore, India	2022

Memorandum of Understanding/ Agreements/ Contracts

The University has MOUs with the prestigious organizations listed below:

- Global Health private limited (Medanta Hospital, Gurgaon, Haryana)
- Paras HealthCare limited, Paras Hospital, Gurgaon, Haryana
- Artemis medicare services limited (Artemis Hospital, Gurgaon, Haryana)
- Management and Science University, Malaysia
- Clove Dental, India
- Titan Company Limited (Corporate office at Bengaluru)
- Udaan Clinic, Hauz Khas
- Step Forward Developmental Center (Mayom Hospital, Gurgaon)
- Khushboo Welfare Society (KWS), Gurgaon
- Continua Kids, Gurgaon



Awards & Recognitions:



The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations.





AMITY
UNIVERSITY
HARYANA

NAAC 'A'
GRADE
ACCREDITED UNIVERSITY

REPORT ON SUSTAINABLE DEVELOPMENT GOAL



YEAR 2021-22



PREAMBLE

Sustainable Development Goal 4 aims to ensure inclusive and equitable education and promote lifelong learning opportunities. UNESCO the world education leaders have been laying stress on environmental education; and promoting cultivation of the 21st century skills amongst students which encompasses three key domains: Learning, Literacy and Life skills for enabling individuals to lead fulfilling and balanced lives; crucial for success in the modern world as a well-rounded, adaptable, & socially responsible individuals.

At Amity University Haryana we contribute to SDG-4 through:

1. Teaching and learning activities.
2. Cutting edge research activities
3. Institutional practices
4. Various collaborations and partnerships with eminent national and international organizations and institutions.

Amity University Haryana's 'Quality Education Programs' pursue the vision of providing "Education, not just for a living but contributing to the progress of humanity through excellence in society relevant research and extension activities.". The University's Quality Education programs follow the vision as mentioned above. AUH is a research and innovation driven university which has actively responded to local, national, and international challenges by nurturing and practicing innovative methods in maintaining core activities of teaching, research and service to the community. The university proactively focuses on continuing what is needed to achieve the long-term sustainability goals. It gives a central place to education for the realization of human rights, culture of peace, harmony, non-violence, sustainable development, health and education awareness, sustainable lifestyles and promotes global citizenship for regional, national, international understanding and practice living in harmony in the lap of nature.

TEACHING AND LEARNING

Amity University Haryana is committed to providing quality education to the students and foster andragogical training to its faculty members. The various programs offered at various UG and PG levels are related to educating students on sustainability besides the core subjects. The curriculum development review committee maps the courses in the programs for the various SDGs to encourage lifelong learning for the students. The students are made aware of the sustainability elements such as gender equality, clean water, energy efficiency, climate change etc through various workshops & guest lectures. Various departments offer many core courses with sustainability foundations integrated across the undergraduate and post graduate programs.

COURSES ON SUSTAINABILITY AND SDGS

Sl. No.	Name of Programme	Course Code	Course Name	SDGs Mapped with the course
1	Bachelor of Business Administration	MGT2404	Business Information & Data Base System	SDG1, SDG4, SDG8, SDG11, SDG17
2	Master of Business Administration	MGT4101	Management Process & Organizational Behavior	SDG4, SDG5, SDG8, SDG9, SDG10, SDG17
3	Master of Business Administration (Banking & Finance)	MBF4210	Business Analytics	SDG1, SDG4, SDG8, SDG11, SDG17
4	Master of Business Administration (Executive for Working Professionals)	MWP4411	Environmental Governance and Sustainability	SDG3, SDG4, SDG6, SDG8, SDG9, SDG11, SDG16
5	Master of Business Administration (Executive for Working Professionals)	MWP4428	Predictive Analytics-I Machine Learning using R	SDG4, SDG8, SDG9, SDG11, SDG15, SDG17
6	Master of Business Administration (Executive for Working Professionals)	MWP4429	Predictive Analytics-II Machine Learning using Python	SDG4, SDG8, SDG9, SDG11, SDG15, SDG17
7	Master of Business Administration (Sustainability Management)	MSM4102	Business & Environmental Legislation	SDG1, SDG3, SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG17
8	Master of Business Administration (Sustainability Management)	MSM4105	Sustainable Marketing Concepts	SDG1, SDG3, SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG17
9	Master of Business Administration	MSM4207	Sustainable Development & Sustainability	SDG1, SDG3, SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
10	Master of Business Administration	MSM4302	Sustainable Development & Climate Change	SDG1, SDG3, SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
11	Master of Business Administration (Sustainability Management)	MSM4303	Sustainability Reporting & CSR	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
12	Master of Business Administration (Sustainability Management)	MSM4304	Human Dimensions of Sustainability	SDG1, SDG3, SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
13	Master of Business Administration (Sustainability Management)	MSM4401	Management in Action-Social, Economic & Ethical Issues	SDG3, SDG4, SDG8, SDG11, SDG16, SDG17
14	Master of Business Administration (Sustainability Management)	MSM4404	Creativity and Innovation in Designing Sustainable Solutions	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
15	Master of Business Administration (Sustainability Management)	MSM4405	Green Marketing & Environmental Product Design	SDG1, SDG3, SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
16	Bachelor of Hotel Management	HMC2205	Food Science & Nutrition	SDG3, SDG4, SDG6, SDG8, SDG9, SDG11, SDG12, SDG14, SDG15, SDG17
17	Bachelor of Hotel Management	HMC2305	Food Safety & Hygiene	SDG3, SDG4, SDG6, SDG8, SDG9, SDG11, SDG12, SDG14, SDG15, SDG17
18	Bachelor of Tourism & Travel Management	TRM2601	Eco-Tourism & Sustainable Tourism	SDG3, SDG4, SDG8, SDG11, SDG16, SDG17
19	Master of Social Work	SCW4204	Community Organization & Social Action	SDG3, SDG4, SDG8, SDG11, SDG16, SDG17

COURSES ON SUSTAINABILITY AND SDGS

Sl. No.	Name of Programme	Course Code	Course Name	SDGs Mapped with the course
20	Bachelor of Technology (Civil Engineering)	CIV2601	Environmental Engineering-I	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
21	Master of Technology (Civil Engineering)	CIV4102	Sustainable Constructions	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
22	Master of Technology (Civil Engineering)	CIV4103	Disaster Mitigation and Management	SDG3, SDG4, SDG6, SDG8, SDG9, SDG11, SDG12, SDG14, SDG15, SDG17
23	Master of Technology (Civil Engineering)	EVE4213	Environmental Chemistry	SDG3, SDG4, SDG6, SDG8, SDG9, SDG11, SDG12, SDG14, SDG15, SDG17
24	Master of Technology (Civil Engineering)	EVE4311	Water Reclamation and Reuse	SDG1, SDG2, SDG3, SDG4, SDG5, SDG8, SDG9, SDG10, SDG12, SDG17
25	Master of Technology (Civil Engineering)	EVE4312	Air and Water Quality Modelling	SDG3, SDG4, SDG8, SDG11, SDG16, SDG17
26	Master of Technology (Mechanical Engineering)	IPE4302	Computer Aided Metrology & Inspection	SDG3, SDG4, SDG6, SDG8, SDG9, SDG11, SDG12, SDG14, SDG15, SDG17
27	Master of Technology (Data Science)	DSE4205	Big Data Technologies	SDG1, SDG4, SDG8, SDG11, SDG17
28	Master of Technology (Solar & Alternate Energy)	SAE4203	Solar Energy Storage Systems	SDG3, SDG4, SDG8, SDG11, SDG16, SDG17
29	Master of Technology (Solar & Alternate Energy)	SAE4402	Green Buildings	SDG1, SDG4, SDG8, SDG11, SDG17
30	Bachelor of Science (Hons.) (Chemistry)	CHY2408	Green Chemistry	SDG1, SDG2, SDG3, SDG4, SDG5, SDG8, SDG9, SDG10, SDG12, SDG17
31	Bachelor of Science (Hons.) (Chemistry)	CHY2409	Agricultural Chemistry	SDG1, SDG4, SDG8, SDG11, SDG17
32	Master of Science (Chemistry)	CHY4313	Industrial Waste and Water Treatment	SDG1, SDG4, SDG8, SDG11, SDG17
33	Master of Science (Chemistry)	CHY4321	Environmental Chemistry	SDG1, SDG4, SDG8, SDG11, SDG17
34	Master of Science (Environmental Science & Management)	ENV4103	Environmental Biology	SDG1, SDG2, SDG3, SDG4, SDG5, SDG8, SDG9, SDG10, SDG12, SDG17
35	Master of Science (Environmental Science & Management)	ENV4201	Pollution Control and Management	SDG1, SDG4, SDG8, SDG11, SDG17
36	Bachelor of Science (Hons.) (Biotechnology)	BTH2108	Food Biotechnology	SDG1, SDG2, SDG3, SDG4, SDG5, SDG8, SDG9, SDG10, SDG12, SDG17
37	Master of Science (Biotechnology)	BTH4204	Environmental Biotechnology	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
38	Master of Science (Data Science)	DSC4311	Weather Prediction	SDG1, SDG2, SDG3, SDG4, SDG5, SDG8, SDG9, SDG10, SDG12, SDG17

COURSES ON SUSTAINABILITY AND SDGS

Sl. No.	Name of Programme	Course Code	Course Name	SDGs Mapped with the course
39	Bachelor of Interior Design	IND2502	Revitalization of Arts & Crafts	SDG1, SDG4, SDG8, SDG11, SDG17
40	Bachelor of Interior Design	IND2610	Sustainable Interior Design & Materials	SDG1, SDG2, SDG3, SDG4, SDG5, SDG8, SDG9, SDG10, SDG12, SDG17
41	Bachelor of Interior Design	IND2611	Sustainable Interior Renovation	SDG1, SDG4, SDG8, SDG11, SDG17
42	B.A., LLB (Hons.)	LAW2702	Environmental Law	SDG1, SDG4, SDG8, SDG11, SDG17
43	Bachelor of Science (Dietetics & Applied Nutrition)	DAN2102	Nutritional Biochemistry	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
44	Bachelor of Optometry	OPT2310	Medical Law and Ethics	SDG4, SDG5, SDG8, SDG9, SDG16
45	Master of Science (Dietetics & Applied Nutrition)	DAN4205	Dietetic Technique and Patient Counseling	SDG4, SDG8, SDG9, SDG11, SDG15, SDG17
46	Master of Science (Dietetics & Applied Nutrition)	DAN4403	Nutrition for Health and Fitness	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
47	Master of Optometry	OPT4306	Environmental Optometry	SDG4, SDG8, SDG9, SDG11, SDG15, SDG17
48	Master of Public Health	PUH4204	Environmental Health Sanitation	SDG1, SDG4, SDG8, SDG11, SDG17
49	Bachelor of Science (Nursing)	ELEC505	Sports Health	SDG1, SDG2, SDG3, SDG4, SDG5, SDG8, SDG9, SDG10, SDG12, SDG17
50	Bachelor of Pharmacy	BP603T	Herbal Drug Technology	SDG4, SDG8, SDG9, SDG11, SDG15, SDG17
51	Bachelor of Architecture	ARC2519	People Culture & Built Environment-I	SDG1, SDG4, SDG8, SDG11, SDG17
52	Bachelor of Architecture	ARC2520	Ecology, Environment & Sustainable Development-I	SDG1, SDG4, SDG8, SDG11, SDG17
53	Bachelor of Architecture	ARC2620	People Culture & Built Environment-II	SDG4, SDG8, SDG9, SDG11, SDG15, SDG17
54	Bachelor of Architecture	ARC2621	Ecology, Environment & Sustainable Development-II	SDG1, SDG2, SDG3, SDG4, SDG5, SDG8, SDG9, SDG10, SDG12, SDG17
55	Bachelor of Architecture	ARC2721	People Culture & Built Environment-III	SDG4, SDG8, SDG9, SDG11, SDG15, SDG17
56	Bachelor of Architecture	ARC2722	Ecology, Environment & Sustainable Development-III	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
57	Bachelor of Planning	PLN2511	Ecology, Environment and Resource Development & Management	SDG4, SDG8, SDG9, SDG11, SDG15, SDG17
58	Bachelor of Planning	PLN2514	Eco-Tourism	SDG1, SDG4, SDG8, SDG11, SDG17
59	Bachelor of Planning	PLN2715	Environmental Impact Assessment and TOD	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17

COURSES ON SUSTAINABILITY AND SDGS

Sl. No.	Name of Programme	Course Code	Course Name	SDGs Mapped with the course
60	Environmental Studies (OE)	ENV2152/ ENV2252	Environmental Studies	SDG4, SDG8, SDG9, SDG11, SDG15, SDG17
61	Environmental Health & Climate (OE)	AST2452	Air, Water and Soil Pollution, Environmental Health Professions	SDG1, SDG4, SDG8, SDG11, SDG17
62	Physical Education and Sports Management (OE)	PED2151	Health Education and Sports	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
63	Physical Education and Sports Management (OE)	PED2251	Human Anatomy and Exercise	SDG1, SDG2, SDG3, SDG4, SDG5, SDG8, SDG9, SDG10, SDG12, SDG17

VALUE-ADDED COURSES:

The university also offers value-added courses for the benefit of students that are directly related to the SDGs. The undergraduate students must study Foreign Languages, Behavioral science, Environmental Studies, Communication

skills, critical thinking, creativity, teamwork, problem solving skills. Leadership and conflict resolution ability through Military training course. These skills play a pivotal role in a variety of occupational arenas.

Course Code	Value Added Course Name	SDGs Mapped with the course
ENV2351	Environmental Pollution and Waste Management	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
ENV2451	Environmental Management and Industrial Safety	SDG1, SDG2, SDG3, SDG4, SDG5, SDG8, SDG9, SDG10, SDG12, SDG17
ENV2551	Environmental Economics and Globalization	SDG3, SDG4, SDG6, SDG8, SDG9, SDG11, SDG16
ENV2651	Sustainable Development Practices	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
MGT2152	Orientation Programme in Entrepreneurship	SDG1, SDG4, SDG8, SDG11, SDG17
MGT2252	Exploring Business Opportunity,	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
MGT2452	Translating Business Model into Startup	SDG3, SDG4, SDG8, SDG11, SDG16, SDG17
LAW2252	Systems, Organizations and Instruments of Human Rights	SDG1, SDG3, SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
PSY2151	Introductory Psychology	SDG3, SDG4, SDG8, SDG11, SDG16, SDG17
PSY2551	Psychometric Testing	SDG3, SDG4, SDG8, SDG11, SDG16, SDG17
PSY2252	Optimism and Success	SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
DSM2151	Introduction to Disaster Management	SDG1, SDG3, SDG4, SDG6, SDG7, SDG8, SDG9, SDG11, SDG16, SDG17
DSM2551	Climate Change Adaptations and Sustainable Development	SDG1, SDG4, SDG8, SDG11, SDG17
GEN2051	Military Training Foundation	SDG-4

The quality of education imparted at the university is testimony to above 88% of students placed in reputed organizations including Fortune 500 companies such as- Amazon, Cisco, E&Y, TCS, Infosys, HashedIn by Deloitte etc. The university also has many industrial partnerships for catering to internship opportunities for students.

The university promotes the principles of sustainability into several academic disciplines to cater to emerging global challenges w. r. t. to the SDGs. The quality

education imparted at the university accelerates the research ecosystem and enhances the capability of students to think out of box and develop new entrepreneurial ideas and innovative products. It also facilitates preparing students to contribute to a more sustainable, inclusive, and equitable future.

“The Journey of Quality Education and Innovative Practices in sync with sustainable elements continues at Amity

INFRASTRUCTURE AND SUPPORT

- **Learning Management System**

The robust Learning Management System provides a unique platform to interact with faculty and utilize educational resources, e-library services, digital notes, lectures and other reading materials, campus facilities and equipment. Virtual labs and practical's in simulation have also been offered to the students to promote extensive learning.

- **The Centre of Innovation in Education:** The Academic Staff College at the University through its various public lectures, seminars, webinars, workshops, FDPs provides an opportunity for lifelong learning to the students, faculty and community.

- **Learning activities:** The faculty representatives in the various students' club are deeply engaged in a plethora of outreach educational activities and services for local community, and other stakeholders to impart education, awareness on important issues pertaining to health, education, environment, entrepreneurship, role of information and communication technology, digitization of e-commerce activities and safety. 24*7 activities are conducted for students for meaningful engagement to promote constructive thinking for holistic development.

The students are challenged with a final

year project and social awareness projects as a part of their curriculum to address and resolve sustainability issues on air quality, gender equity, solar power, no plastic in community & campus, waste management etc.

The 110 acres LEED platinum certified green campus is rich in diverse flora and fauna and herbal plants to promote students learning in-house in lap of nature for fostering the ability of students to think of sustainability as a living reality.

The students are trained to practice the value of contributing to the societal development by giving back what they have learnt. The university implements this practice by conducting classes, awareness programs for the marginalized and uneducated adults in the villages adopted by various clubs such as UDAAN and SAAKAR to achieve basic level education and AMICON to promote environmental. The Mission Green plantation drive is successfully lead by the students' clubs Amicon and Amigreen. Every year on 5th June World Environment Day students faculty are involved in planting saplings in and around the campus. They also organize activities for farmers and school children of the neighboring community to engage in various environmental activities on themes such as biodiversity, growing herbal plants & microgreens, ecology, composting recycling and sustainable

agricultural practices. Education is an important medium that helps in reducing the pervasiveness of extreme poverty, communal conflicts, ignorance about the conservation of the environment and unawareness of sustainability. The university education system focuses on inculcating the spirit of patriotism, and love for mankind, and driving sustainability development goals by implementing various practices.

<https://www.amity.edu/gurugram/classrooms>

<https://www.amity.edu/gurugram/virtualtour/index.html>

- **Institutional facilities:**

1. Innovation ecosystem and Entrepreneurship: The University provides an excellent opportunity for setting-up start-ups and facilitate in nurturing the innovation culture of the university and act as an accelerator of commercialization of the research outcomes of the University and also be advantageous for the entrepreneurs to connect them with industry, society and government entities and achieve maximum efficiency in the development of companies. The ecosystem of research, innovation and entrepreneurship in the University consisting of following:

a. Innovation, Incubation and startup Policy for faculty, staff and students to

promote entrepreneurship and innovation ecosystem in the university.

b. PRE - INCUBATION FACILITY: Entrepreneurship Cell (E-Cell) Institution's Innovation Council (IIC) E-Cell and IIC are actively involved in organizing entrepreneurial events & activities, motivating students in creating pipelines of business ideas for incubation support.

c. **INCUBATION CENTRE:** Amity Incubation Centre is supported by Ministry of Electronics and Information Technology under MeitY Startup Hub TIDE 2.0 G3C Incubation Centre to encourage and incubate technology based new enterprises with innovative products and services in the thrust areas of ICT, Environment & Health Care, Agribusiness, Biotechnology and Nanoscience, Artificial Intelligence & Robotics. The incubator center has supported a startup "Kulyantran Global SHA" recently resulting in more than 25 start-ups in the above thrust areas.

2. Amity Skill Institute: The skill institute recognizes that learning is a lifelong learning endeavour and the need of the hour is to enhance skill development for the youth and provide vocational education, information technology training for their lifelong learning opportunities. The university focuses on capacity building and offers a basket of skill tracks and minor degrees to the students so that they are decently employed and can become entrepreneurs, and job creators.

The skill institute collaborated with Commonwealth Educational Media Centre

for Asia to provide a 'Two months Certification Course in Lean Six Sigma Foundation'.

3. Air Quality monitoring system at AUH:

The LEED platinum certified campus is a facilitator in fostering environmental awareness amongst all stakeholder through the establishment of the following monitoring systems by Prof. Dr. P.C.S. Devara and his ACOAST team.

a) FACILITY: AIR QUALITY MONITORING STATION (AQMS)

THEME: Round-the-clock monitoring and analysis of primary and secondary air pollutants using Modelling of Air Pollution and Networking (MAPAN) with synchronous surface-level meteorological parameters.



Parameters

Particulate Matter (PM)

- (i) PM1 (Superfine)
- (ii) PM2.5 (Fine)
- (iii) PM10 (Coarse)
- (iv) SO₂
- (v) O₃
- (vi) NO_x
- (vii) NO
- (viii) NO₂
- (ix) NH₃

Volatile Organic Compounds (VOCs)

- (x) Benzene
- (xi) Ethyl Benzene
- (xii) Toluene
- (xiii) Xylene
- (xiv) m&p Xylene
- (xv) CO
- (xvi) CO₂

Surface Meteorology

- (xvii) Wind Speed
- (xviii) Wind Direction
- (xix) Temperature
- (xx) Humidity
- (xxi) Pressure and
- (xxii) Rainfall

(AUH-IITM NATIONAL NETWORK PROJECT)

At AUH we have a multi-disciplinary and multi-institutional Climate Research Laboratory (CRL) facility and an Amity Air Quality Monitoring Station (AAQMS), a MAPAN (Modeling of Air Pollution and Networking (MAPAN) system, an overshoot of SAFAR (System of Air-Quality Forecasting and Research), established in collaboration with the Indian Institute of Tropical Meteorology (IITM-MoES), Pune.

In addition, the SAFAR / MAPAN system has been providing the real-time, high-resolution data relating to more than a dozen air pollutant levels which will be used not only for developing the mitigation processes but also to model forecast of the pollution levels in the study region. Moreover, the scroll data on display-board that depicts the time-varying concentration levels of PM1, 2.5, 10, Ozone, CO, CO2, NOX, NO, NO2, NH3, SO2, Volatile Organic Compounds (VOCs), viz., Benzene, Toluene, Xylene, and meteorological parameters which are being used for public awareness about the quality of air and its safe level. In this context, other world-class experimental facilities such as

NASA-AERONET Sun-Sky Soar Radiometer, Polar Nephelometer and New-Generation Aethalometer have also been providing the short-scale as well as large-scale states of the atmosphere and their interactions with air quality, health, weather, and climate.

The findings of the air quality/air pollution campaigns conducted by AUH during the festive epochs such as Diwali, Holi etc., and Phases of the Odd-Even Scheme, implemented by the Delhi Government, impact of stubble burning on regional and transboundary pollution etc. These studies play an important role in short-term influences on environmental and human health. The salient results of these studies carried out at AUH have been published in various National and International journals.

b) FACILITY: NASA-AERONET CE318-T RADIOMETER

THEME: Optical, Microphysical, Radiative and Chemical States of the Atmosphere (AUH-NASA-AERONET, USA Using Sun-Sky-Moon Dual-Pol Multi-band Radiometer for 24x7 measurements



- Multi-spectral Aerosol Optical Depth (340, 380, 440, 500, 675, 870, 1020nm)
- Aerosol Size Distribution
- Single scattering albedo
- Asymmetry Parameter
- Phase Function
- Total, Fine and Coarse-mode fractions
- Water vapor
- Aerosol Refractive Index
- Ozone optical Depth
- MODIS-Aqua and Terra AOD
- HYSPLIT Airmass Trajectories
- TOMS/OMI TCO

(AUH-NASA Global Network Project, FIRST OF ITS KIND IN INDIA)

c) FACILITY: MULTI-SPECTRAL AETHANOMETER AE-33

THEME: Investigations of Carbonaceous Aerosol and Biomass Burning using AE-33 Multi-Beam Aethalometer



(AUH-IITM FIRST KIND IN HARYANA STATE)

d) FACILITY: POLAR NEPHELOMETER AQUA 4000

THEME: Atmospheric Turbidity and Air Quality using Polar Nephelometer.



(AUH-M/s Ecotech Pty Ltd., Australia, ACADEMIA-INDUSTRY COLLABORATIVE PROJECT)

4. Public Resources Lifelong Learning

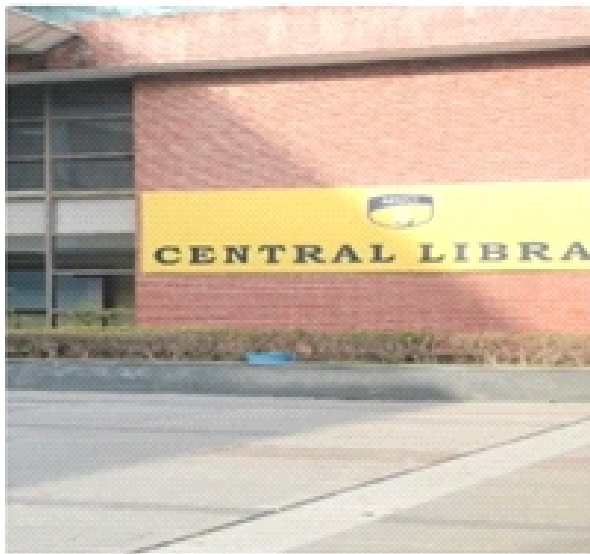
The university is in a rural- urban place therefore, it provides access to its facilities such as library, laboratories, computer labs, studios, herbal garden under the supervision of faculty members. All participants are from nearby schools, other universities, research labs and community to access the available resources freely.

5 Access to Central Library: . Resource sharing with other Libraries through DELNET

The central library is well equipped with textbooks, reference books, journals, magazines, e-resources, newspapers, etc. The library building is in D-Block. The total area of the library is 50,000 sq. ft. and fully automated / computerized with Open-Source Library Management Software (LMS) "KOHA". All the books are classified with the Dewey Decimal Classification (DDC) International Classification Scheme and bar-coding. In addition, there are some departmental libraries—law library, architecture library, pharmacy library, and nursing library—that are well equipped according to council norms like BCI, PCI, COA, INC, AICTE, etc. DELNET login: <http://164.100.247.26>


A Glimpse of the library building in D-Block with modern infrastructure






RFID and self-check-in Check out the KIOSK machine and modern braille facility.

W E L C O M E

 **DELNET**

Institution: Amity University Haryana, Gurugram



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This certifies that

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Manesar, Gurugram

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DELNET – Developing Library Network

and their bonafide Faculty, Students, Researchers, Scholars and Officials are entitled to all benefits and privileges of access to DELNET Resources and Services.

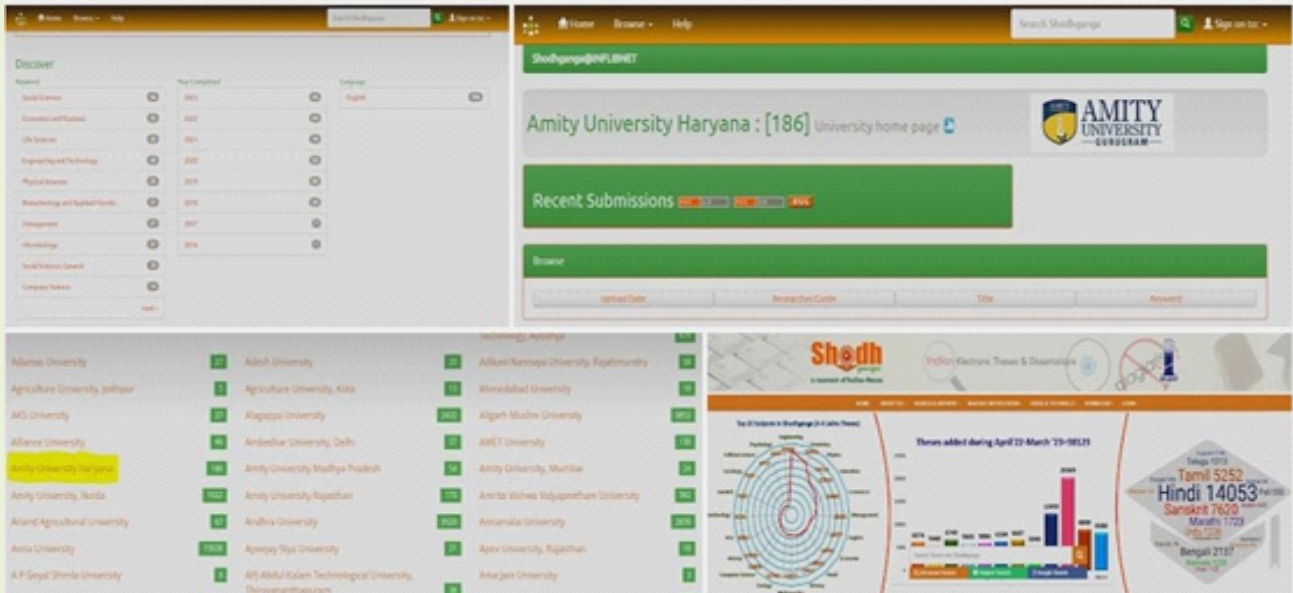
Membership Number *IM – 7919* has been renewed and next renewal is due on December 31, 2023


Date of Issue: July 20, 2023

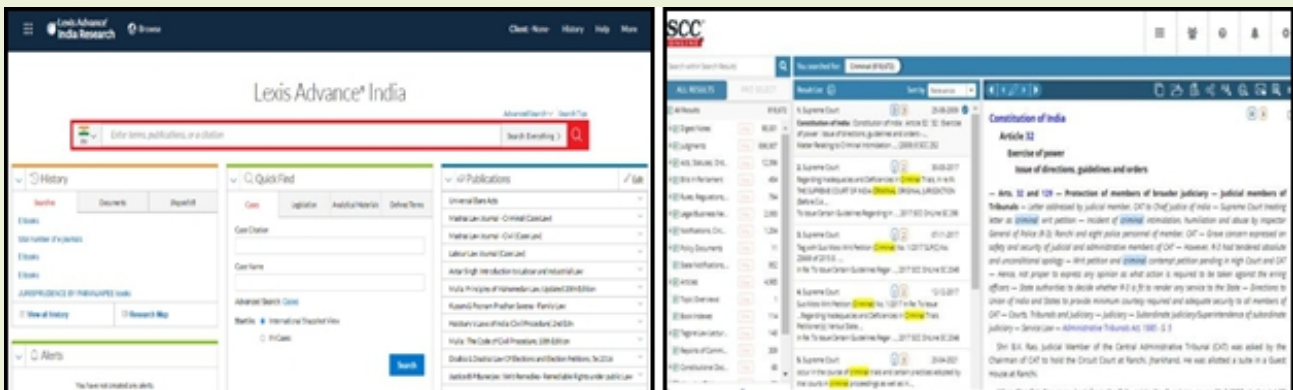

Dr. Sangeeta Kaul
Director
DELNET, New Delhi

Certificate of DELNET Membership-2023

Law Library e-legal database: Supreme Court Cases & Lexis Advance e-legal database For



Research Scholars: Information Library Network (INFLIBNET), Gandhi Nagar, Gujrat Online Thesis Portal link: [AUH Online Thesis](#)



AUH-Library web-OPAC



Library Orientation program/Awareness Program for User – Community

§ Central Instrumentation Research Facility (CIRF) was established in September 2019. The purpose of this facility is to provide the scientific community (within Amity University and external researchers, both from the academia and industry) with state-of-the-art analytical cutting-edge access to Microscopy, Flow Cytometry, Centrifuge, Chromatography and Spectrophotometric techniques for imaging, cell analyzing, separation, identification, and quantification of biomolecules like protein, organic compound, drugs, food, and pesticide etc. CIRF is working as Analytical Research and Development Division and provides a comprehensive, qualitative, and quantitative profiling of biomolecular species, organic samples with high sample throughput using FTIR, UV-Vis, Fluorescence spectrometric technologies, Chromatographic, Imaging, Flow-cytometric, DLS, DSC, Modular Spectrometer and Centrifugation technique. The center helps in experimental design, analysis, and data interpretation. It promotes the skill training to students/ researchers/ industries on general principles of imaging, cell analysing, separation, identification and quantification through workshops organized at the regular intervals throughout the year with the full support of industries. The development of new analytical methods for different types of sample analysis to explore new dimensions of technology enabled R&D.

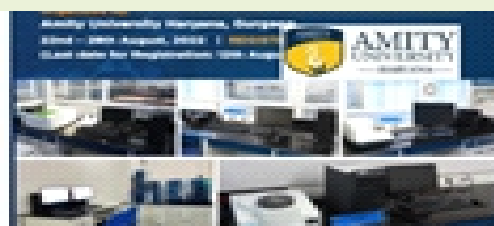
<https://www.amity.edu/gurugram/central-instrument-research-facility.aspx>



Amity Lipidomic Research Facility (ALRF) was established in 2018, with funding from Department of Science and Technology (DST-FIST) Gov. of India and Amity University, Haryana. The purpose of establishing this facility is to provide the scientific community with state-of-the-art mass spectrometric techniques for separation, identification, and

quantitation of biomolecules like lipids, metabolites and proteins. ALRF provides comprehensive, qualitative, and quantitative profiling of lipid molecular species with high sample throughput using mass spectrometric technologies.

<https://www.amity.edu/gurugram/lipidomics-research-facility.aspx>



Ministry of Science & Technology
Department of Science & Technology
R&D Infrastructure Division
"Synergistic Training program Utilizing the Scientific and Technological Infrastructure (STUTI) Program – 2021"

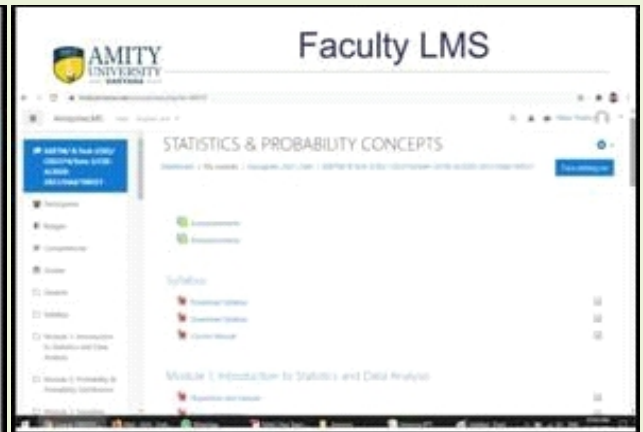
AUH - DBT-BUILDER -Amity University Haryana established an Interdisciplinary Life Science Programme for Advance Research and Education in 2022 under the GOI's DBT – BUILDER (Boost to University Interdisciplinary Life Sciences Department for Education and Research) program. Its established and led to upgradation of post-graduate teaching/training laboratories and creation of improved infrastructure teaching facilities to provide opportunity for hands-on experimentation opportunities to faculty of science, engineering, and technology. The objective of the program is to foster intra-and inter-departmental interdisciplinary research opportunities among faculty and students.

The University has conducted synergistic national training under DST-STUTI program in CIRF and ALRF facilities. The computer labs in the university are accessible to outsiders. Amity Law School, AUH in collaboration with NTA conducted AILET-2021 for National Law Universities. A total of 343 candidates appeared for this test at AUH. The university also conducted competitive examinations for Junior Court Assistant (JCA) and CUET, UGC.



The faculty at the university develops online teaching materials which are available on e-PG- Pathshala, MOODLE, Google, LMS, Website, You Tube etc. online learning resources for free access to students and

others. The university conducted various webinars based on various educational and contemporary issues which is freely accessible to the students and community at large.



- **Free courses leading to a certificate or award.**

Amity Skills Institute with a vision to provide holistic perspective and leverage talent and capabilities of students to meet the needs of contemporary dynamic business environment introduces MOOC on 'Certification in Lean Six Sigma Foundation' in Association with Commonwealth Educational Media Centre for Asia (CEMCA) more than 1300 students participated out of which more than 605 students were from outside AUH.

Bausch and Lomb Contact lens: Mastermind In-Campus program: This program is conducted by the Professional service team of Bausch + Lomb. It is a structured contact lens training program which offers the best learning experience of soft contact lenses to Optometry students. The participating students attend a 10 days training program and in 6 months course study comprising of 6 modules appear for the final examination and the candidate is awarded a certificate endorsed by Bausch + Lomb.



HAPPENINGS, EVENTS AND OUTREACH.

Public Events- Life Long Learnings

The university earnestly provides access to educational resources via webinars, guest lectures, conferences counselling sessions, visits of foreign delegates, eminent industry representatives in forums which are freely accessible to the public. These events are generally on programmed or ad hoc basis. To name a few a webinar was organized on “Entrepreneurial Opportunities for MSME in Uzbekistan”, a Five-Day Capacity Development & Training Workshop on “Role

of Teachers in Fostering Entrepreneurial Skills in Students for New India”, One Day Training Program on “Human Rights” sponsored by National Human Rights Commission, New Delhi, My Health is My Business" by Renowned Health & Nutrition Coach, Mr. Lalit Mohan Kapoor from California, USA and An interactive session in Thalassaemia screening with eminent Bollywood star Jackie Shroff and many other themes as per the contemporary scenario.(pics)



The objective of organizing such programs is to create awareness on the sustainable development goals pertaining to digital literacy, education, mental health, well-being, environment conservation, climate change etc. for motivating the participants to reflect on addressing these issues for social upliftment.

Vocational Training- Lifelong Learning

The university is imparting skill-based training to the community through its programme like Unnat Bharat Abhiyan etc. for setting-up small, self-sustaining businesses. The Unnat Bharat Abhiyan mission provides them

support in terms of business development, knowledge and skills for running a nano or micro business, access to finance, and access to markets. These programs conducted by experts make the students self-reliant and help foster development in all the sustainable development goals.

The curriculum of institutes/ schools such as Amity Fashion Design and Technology, Amity Institute of Design, Amity School of Fine Arts, Amity School of Earth and Environment Sciences, Amity School of Architecture and Planning, Amity School of Hospitality,



Amity Medical School, Amity School of Engineering and Technology, Amity Institute of Biotechnology etc. are mapped with the requirements of various sustainable development elements that focus on improving the skill sets of students in an experiential learning environment. Going beyond the horizons of textbooks and making something innovative is certainly a measure to improve an individual in practical terms. The students showcase their work by creating innovative products aligned with various improvisation features including various green initiatives in their creations. (List of Programs + Program structure of AID attached).

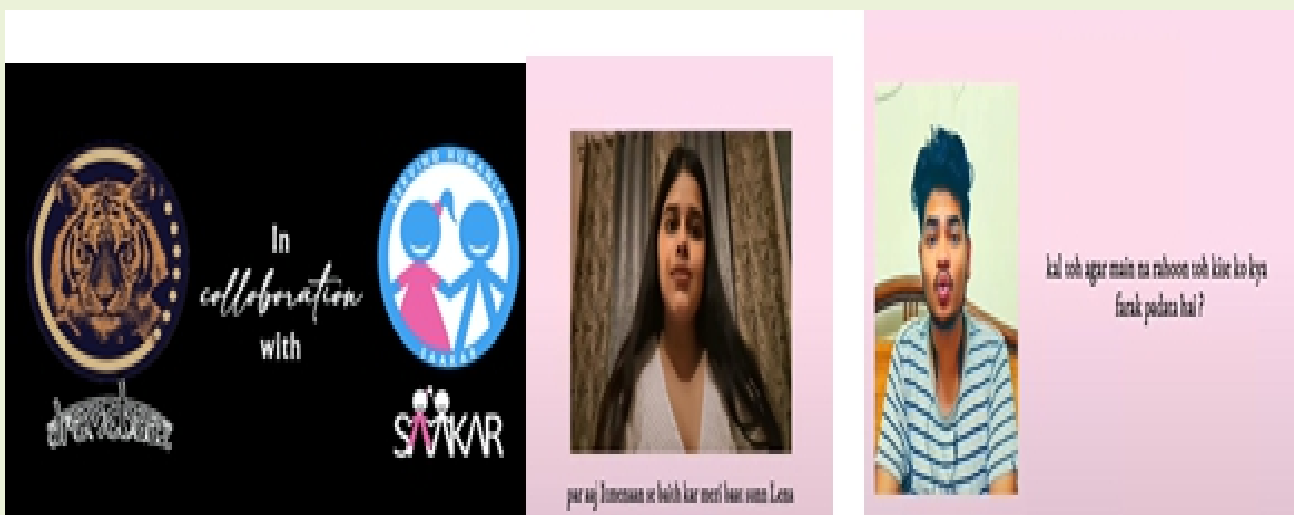
The Amity Skill Institute organizes activities in the areas of communication, yoga and health, hospitality, arts, and management for the outsourced local staff and transport personnel's working in the university. These activities help in improving and grooming their personality.

Education Outreach activities beyond Campus

The university ensures an inclusive and equitable quality education and promotes

lifelong learning opportunities for all as per the UN Sustainable Development Goals. It has adopted five villages for the spread of education and upliftment of the rural and urban folk thereby accomplishing the goals in providing more sustainable future for all. The students are trained to practice the values of working towards the upliftment of society by giving back what they have learnt. The university implements this practice by conducting classes for the marginalized and uneducated adults in the adopted villages.

The student clubs and schools such as Amity College of Nursing and Amity Medical School in collaboration with Rotary Club, Health Care industries and NGOs keep organizing activities like blood donation camps, health awareness camps, green environmental initiatives, women empowerment sessions, gender sensitization etc. Activities such as- Obliterating Gender Stereotypes, Suicide Prevention Awareness Campaign, PINK: Celebrating and Empowering Women and Canvair 2.0 have been organised for creating widespread awareness for community upliftment and cognizance on addressing local and national issues.



INSTAGRAM LIVE
 Date: 16/02/21
 Time: 06:00PM

HUNKAAR

Ms. Rachita
President, Hunkaar

Ms. Dipika
Rep. Girlup

Ms. Priya
Director of Women's
wing, Saakar

Ms. Shreya
Executive Director,
Shakti

Hunkaar

In collaboration with

TOPIC: OBLITERATING GENDER STEREOTYPES

girlup

Saakar

Shakti



OBLITERATING GENDER STEREOTYPES

Suicide Prevention Awareness Campaign



**Pink : Celebrating and Empowering Women
Canviar 2.0**



RESEARCH AND CONTRIBUTION

Research Project

Amity University Haryana strategic plan focuses on maintaining high quality research with substantial international, national, and local impact. The research conducted at the university gives impetus to address societal needs and create innovative intellectual property rights which can be used to cater to the sustainability goals of the rural and urban community.

The University provides sufficient support to its faculty members and promotes research amongst the researchers. During the calendar year 2022, 605 publications have been made by the faculty members in journals of international and national repute with high impact factor. Faculty members have also received major grants funded by the government funding agencies such as DBT, DST, DAE, IUAC, MNRE, Ministry of Ayush, ICMR etc.

The three scientists of Amity University Haryana have been listed amongst the top 2% of Stanford University's World Scientists List 2022.



AUH's 3 scientist in Top 2% of world scientists

Stanford University Ranking List 2022



Prof. (Dr.) Indu Shekhar Thakur
Professor & Director, Amity School of Earth & Environment Science
Head Centre of Excellence in Bio-Energy



Prof. (Dr) Abul Thakur
Director, Amity Centre for Nanotechnology;
Amity School of Engineering and Technology;
Nanoscience and Nanotechnology



Dr. Kamal Kumar
Assistant Professor
Department of Mathematics
Amity School of Engineering and Technology

Research highlights of the faculty:

- **Cognitive and language assessment and development in children**

Dr. Vijay Kumar, Associate Professor, Department of Audiology and Speech-Language Pathology is actively involved in identifying the factors influencing language and literacy development in typically developing children with hearing loss who are rehabilitated with cochlear implants. Using an experimental model, he observed that nearly 18 months of post-cochlear implantation duration is sufficient to enhance the language learning abilities equal to the children with normal hearing. He also observed that early implantation within the age range of less than 24 months can optimize the language learning outcomes. The research findings of Dr Kumar was published in International Archives of Otorhinolaryngology. Kumar, V., & Mehta, R. (2021). Receptive and Expressive Language in Hindi Speaking Children with Postcochlear Implantation at 6-Month Intervals. International Archives of Otorhinolaryngology, 25, 407-412 <https://doi.org/10.1055/s-0040-1716570>. Besides, Dr Kumar is also developing an indigenous psychometric test for assessment of language of Hindi-speaking children with cochlear implant. He has validated the receptive-expressive emergent language test on Hindi-speaking Indian children. This work is

published in International Journal of Paediatric Otorhinolaryngology. Kumar, V., & Mehta, R. (2020). Adaptation and validation of receptive expressive emergent Language Test-3: Evidence from Hindi speaking children with cochlear implant. International Journal of Pediatric Otorhinolaryngology, 132, 109891. <https://doi.org/10.1016/j.ijporl.2020.109891>



1. Speech therapy session for children with language delay 2. Profound hearing loss

• Commitment to Community & Society

The research interest of Dr. Vijay Kumar, Associate Professor, Department of Audiology and Speech-Language Pathology also extends to investigate the socio-cultural perspective of health in general. Recently, Dr Kumar and his team investigated the impact of hearing aid usage on emotional and social skills in persons with severe to profound hearing loss. Severe to profound hearing loss impacts the capacity for verbal communication as well as the social, emotional, and overall quality of life. It was observed that the social domain of the persons using hearing aids was

significantly better than the emotional even after six months of hearing aids usage. Based on these findings it was concluded that in individuals with severe to profound hearing loss, social rehabilitation occurs quicker than emotional. These findings suggest that customized counselling should be developed for the social and emotional wellbeing as these two parameters improve distinctly. Yadav, A. K., Ahsan, A., & Kumar, V. (2023). Impact of Hearing Aid Usage on Emotional and Social Skills in Persons with Severe to Profound Hearing Loss. *Journal of Audiology & Otology*, 27(1), 10 doi: 10.7874/jao.2022.00290



Hearing and speech screening of primary grade children in Govt. Primary school, Panchgaon, Manesar, Gurgaon



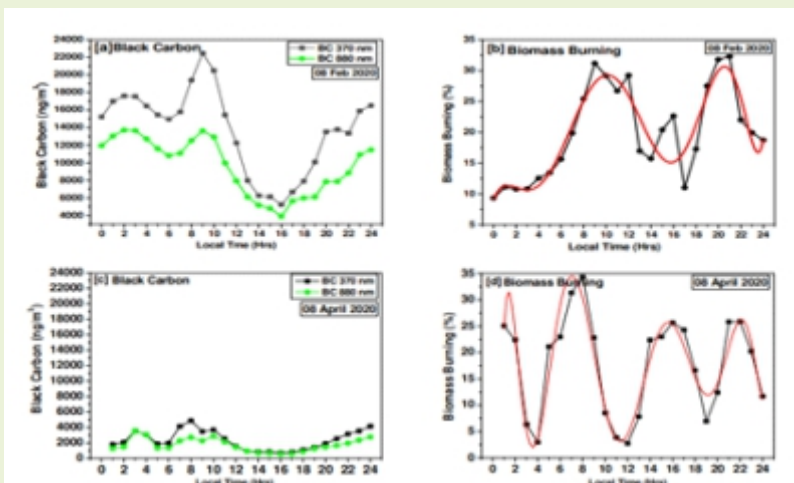
Speech therapy session for children with speech-sound disorders.

Multisite characterization of concurrent black carbon and biomass burning around COVID-19 lockdown period

(Urban Climate Journal, Impact Factor: 6.663)

Authors: Sunil M Sonbawne, Panuganti CS Devara (Corresponding author), Priyanka D Bhojar

The Magee Scientific Model AE33 Next Generation Aethalometer, installed at Amity University Haryana (AUH), Panchgaon (rural station) has been operated round-the-clock and obtained high-resolution (1-5 Minutes) observations of Black Carbon (BC) mass concentration at seven different sensing wavelengths (ranging from UV to NIR). For each observation, contribution from Biomass Burning (BB, in percent) to the BC has also been recorded. These measurements have been analyzed to segregate different sources, responsible for BC at this rural station. The results reveal that the major contributor is 'traffic' (fossil fuel diesel emissions), followed by 'biomass smoke', wood-burning activities. The diurnal variation in BC and associated BB over this study area reveals a significant maximum around 0900h and minimum around 1600h. These maximum and minimum concentrations are attributed to transport activities during morning and ascending of local atmospheric boundary-layer height. The results also exhibit a



strong affinity between BC mass concentration and coincident CO_2 and $\text{PM}_{2.5}$ mass concentrations. Synchronous BC measurements have also been organized over two more locations, namely, Bhopal (urban station) and Mahabaleshwar (high-altitude station). The black carbon aerosol transport through long-range air mass back-trajectories is explained.

COLLABORATIONS AND PARTNERSHIPS

Collaborations and Partnerships:

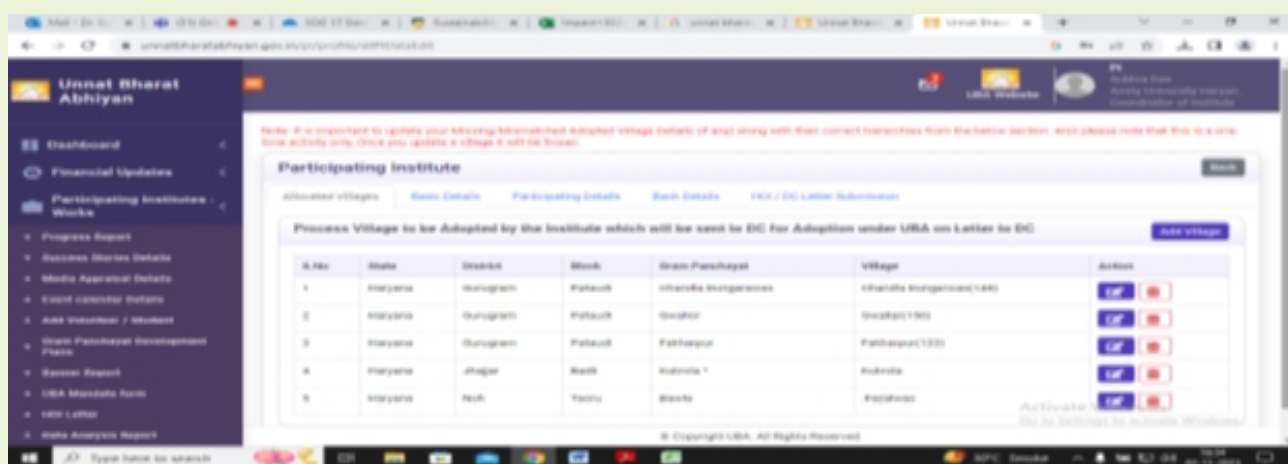
A. Partnership for community welfare:

- Ministry of Human Resources Development (MHRD), Government of India has launched the national program called Unnat Bharat Abhiyan (UBA). Amity University Haryana has been selected to participate in UBA as a Participating Institute (PI) by MHRD.

The vision was to involve professional and higher educational institutions in the

development process of rural areas in the country to achieve sustainable development and better quality of life. Indian Institute of Technology, Hauz Khas, New Delhi has been designated to be the National Coordinating Institute by the Ministry. Under the UBA program AUH has selected the following five villages to conduct developmental activities:

1. Chandla
2. Fazalwas
3. Gwalior
4. Kukrola
5. Fakharpur



Under UBA, Amity University Haryana has conducted the village survey and household survey of the five villages for building rapport with the Sarpanch, Panchayat members and understand the functioning of the village ecosystem, Anganwadi and Self-help groups. Interact with villagers and identify the problem areas for which solution or supports can be provided. Amity University Haryana propose to create awareness and provide solutions in the field of renewable energy, mental and physical health, nutrition, agriculture and skill development.

B. Partnership with Department of Biotechnology (DBT), Govt of India:

AUH - DBT-BUILDER - Amity University Haryana established an Interdisciplinary Life Science Programme for Advance Research and Education in 2022 under the GOI's DBT – BUILDER (Boost to University Interdisciplinary Life Sciences Department for Education and Research) program.

C. Partnership for sustainable environment:

- The university also has a multi-lateral collaborative research project on mapping air quality and human health. for CAL-VAL of NASA'S MAIA satellite to be launched in 2024, a 2ND Indian network station in the series.

FACILITY: MAIA-AMOD # 88

THEME: MULTI-DIMENSIONAL MAPPING OF AIR QUALITY AND HUMAN HEALTH

Partnerships with prestigious national and international organizations: The university fosters various collaborations and

partnerships for collaborative research opportunities with industry and educational organizations for exchange programs to promote teaching learning, industry - academia relationships. More than 52 MoUS have been signed with reputed organizations

Governance and Mandates. (on the website as previously added)

<https://www.amity.edu/gurugram/sdg/sdg4/lifelong%20learning%20access%20policy.pdf>



The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations.





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REPORT ON SUSTAINABLE DEVELOPMENT GOAL



YEAR 2021-22



PREAMBLE

Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous, and sustainable world. It plays a very significant role in the 21st century. It attains more value as more than half of the world's population is women. Around the world in higher education institutions (HEIs), their leadership, academic and administrative staff, and students, are increasingly mobilized for the United Nations Agenda 2030 and the related Sustainable Development Goals (SDGs). Gender equality, SDG 5, in particular, is receiving more and more attention, due to its crucial role for the advancement of all of the SDGs and society. Amity University Haryana has been advocating for more engagement of higher education with the SDGs, resulting in various projects and the publication of myriad research papers. The series of initiatives aim to show examples of best practices and connect actions, with a dual set of goals: - Network initiatives to build new synergies and increase capacity to act while informing higher education more broadly and inviting more educationists to get involved; - Provide evidence to policy and other decision-makers in order to stress the important role of higher education for teaching, research and societal impact to inform future policy-making.

I. TEACHING AND LEARNING

Amity university Haryana is setting a benchmark in making gender equality an all-inclusive part of university policies and a part of its day-to-day routine. It is implemented at all levels right from the top administration to the class four employees. The general equality concept has become a part and parcel of the everyday life of faculty, staff, and students in Amity Campus. It spreads critical thought, social inclusion, and promotion of diversities and varieties, against any form of discrimination. This goal implies that the category of gender should be intertwined with other variables such as ethnicity, social and economic positions, age, sexual orientation. Amity University is extending its role in heterogeneous and diverse modes: lecture, seminar and conference cycles to spread gender awareness, training courses and master's degrees enhance professional figures, community counselling centres and women welfare and empowerment centric policies, programs of scholarships for female students to ensure equitable access to education and to promote career development are the CORE of Amity university, Haryana.


Sno	Programes	School/Institute
1	B.Sc. (Clinical Psychology)	Amity Institute of Behavioural and Applied Sciences
2	B.A. (Hons) - Applied Psychology	
3	M.A. (Applied Psychology)	
4	M.A. (Counselling Psychology)	
5	M.Sc. (Clinical Psychology)	
6	Master of Social Work	
7	B.A.,LL.B (Hons) #	Amity Law School
8	B.Com., LL.B. (Hons) #	
9	BBA LL.B. (Hons) #	
10	LL.M.	
11	Bachelor of Planning	Amity School of Architecture and Planning
12	Master of Planning (Urban and Regional)	

I. Research Contribution

Amity university, Haryana is committed to supporting women in the field of research and enhancing gender diversity. There are 10 R & D Projects and 7 consultancy projects. There is an impressive number of female authors who published their work in journals with high impact factor. Amity University has

initiated an innovative research network connecting higher education and SDG 5. The University brings together and motivates all the faculties of the different schools under the AUH flagship to contribute towards enlightening of society on the negative impacts of gender discrimination.

a. Funded Projects with alignment to SDG 5

1.	<p>Project Title - "Capacity Building and Personality Development Program (PDP) for female undergraduate and Postgraduate students at AUH "</p> <p>PI : Dr. Rajesh Nair Funding Agency: National Commission for Women Sanctioned Amount: 150000</p>	
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b. Publications in alignment with SDG 5

1. Exploring Pathways of Digital Financial Inclusion to Improve Women's Economic Participation. 8th International Conference on Advanced Computing and Communication Systems, ICACCS 2022; 2022.
2. Negi DP, Abdul Azeez EP, Kaini A, Jabir P. 'Forced to Choose': Bacchara Women's Experiences in Sex Work. Sex Cult 2021;25(5):1620-1633.
3. Azeez E P A, Negi DP, Choudhary P. The Customary Practice of Nata Pratha in Rajasthan, India: Is It Freedom or Captivity for Women? J Divorce Remarriage 2021;62(2):127-143.
4. Azeez E P A, Negi DP, Rani A, A P SK. The impact of COVID-19 on migrant women workers in India. Eurasian Geogr Econ 2021;62(1):93-112.
5. Manrai R, Goel U, Yadav PD. Factors affecting adoption of digital payments by semi-rural Indian women: extension of UTAUT-2 with self-determination theory and perceived credibility. Aslib J Inf Manage 2021;73(6):814-838.

GOVERNANCE AND MANDATES

Amity university Haryana is not leaving any stone unturned to educate their own faculties, teaching, non-teaching staff and the communities at large about gender sensitization. The students and faculties reach out to the communities to conduct sessions, role plays, awareness rallies to STOP THE BIAS BASED ON GENDER. Amity College Of Nursing extends this campaign to the rural and urban communities located in the vicinity and even to the communities attending primary health centres and hospitals.

Admissions & Scholarships

The University has an online application process, and the entire student cycle of admission is managed through an in-house ERP admission portal known as Amizone which is completely integrated. The technology has enabled us to incorporate different functionality in the admission portal to keep a track on the 'gender wise applicants' which help us in taking timely action and required attention on the state of gender-wise applications coming to the University for various programs. For year July 2021 to June 2022, the university has received 7530 female applications. Out of this 6650 have registered and 1262 female candidates have paid the fees. The university is driven by vision of honourable Chancellor Dr. Aseem Chauhan to develop the next generation of leadership for organizations, communities, and society at large. With this vision in mind the university has envisioned and implemented myriad organic concepts and policies. The Amity Scholarships are instituted to help those who are brilliant in academics and those who deserve world-class education but don't have the means. During

the difficult times of COVID university had waived off application fee and fee of many students who had lost their one or both parents. As the need arises the university stands on humanitarian grounds to help the needy without any discrimination.

First Generation Female Admissions

The gender disparity in number of females taking admissions in various courses is changing rapidly. Now the number of first-generation females starting a degree has also increased substantially. In the year 2021-2022 it was 476. And the Proportion of women first generation was 1262.

Policy on Women Representation

Amity University Haryana is firmly committed to upholding the principles of Gender Equality, and this commitment is reflected in the institution's comprehensive policies addressing this crucial aspect. A dedicated committee comes together to formulate and periodically review policies specifically focused on women's representation, with these reviews occurring once every three years.

The primary objective of these policies is to cultivate a vibrant and inclusive intellectual community within the university. This inclusivity extends to fostering a safe and supportive environment for both work and learning, encompassing individuals of all genders. By implementing these policies, Amity University Haryana aims to transcend traditional gender norms and stereotypes, creating a setting where everyone feels valued, respected, and empowered to thrive academically and professionally.

The periodic review conducted by the committee underscores the dynamic nature of the university's commitment to gender

equality. This ongoing assessment ensures that policies remain responsive to evolving needs and challenges, thereby contributing to the continuous enhancement of the university's intellectual and social landscape.

In essence, Amity University Haryana's endorsement of Gender Equality is not merely a theoretical principle but a practical

and dynamic commitment embedded in policies and sustained through periodic reviews. Through these initiatives, the university strives to provide an environment that fosters diversity, equity, and inclusivity, ultimately enriching the educational experience for all members of its community.



INFRASTRUCTURE AND FACILITIES

Amity university engages in many activities where it promotes the concept of gender equality at large among the community. The lush green university campus ensures that the workplace is safe for all. All these measures testify to an engagement and an ever-growing consciousness on the importance of including and implementing policies of gender equality and gender mainstreaming within the community and the governance of higher education

institutions to fight and contrast gender discriminations. Furthermore, this shows a will to improve and ensure inclusion and equity within and outside academia. These strategic initiatives, in fact, also aim at creating a dialogue with wider communities to which every single university belongs, combining and interacting with other Sustainable Development Goals to enhance economic,

social, cultural, and environmental sustainability. The main objective of the various activities of university revolves around having a significant impact on society, both directly and indirectly, both at a local and a global level, and the success of each action depends, now more than ever, on the ability to co-operate together across differences and borders in order to share positive actions and to have stronger voices to influence public policies.

Mentorship

The concept of mentor mentee programme at amity university aims to extend support and guidance to the students studying in the college for the betterment of their academic and professional career.

It has become very successful in bridging the gap between the teacher and the student and blending the harmonious relationship between the learner and his/her family and the institution at large. Consequently, every year the enrolment ratio of girl-students from all sections of society has been rapidly increasing in our university. The mentees have been assigned to the mentors right from the first year of the programme and each mentor is assigned to a group of 8-9 students. The meetings are organised regularly and the detail about each mentee is being updated on regular basis.

Through this unique Mentorship program students will never feel away from home at Amity. If any student encounters any problems/difficulties during his/her tenure concerning about academic/personal / emotional problems, our experienced faculty mentors will be there to support them as confidantes and true friends. The girls are extended wholehearted support for their personal and academic related problems.

Women Cell

In order to spread and emphasize on gender sensitization, the Women Cell (WC) has been created with an aim to create a gender sensitized community within campus as well as in the society at large. Amity University has always been in forefront to initiate majors for women welfare at its campus. Female members of women cell could also be contacted to lodge a complaint. The women's cell help desk is envisaged to act as a link between the Sufferer (women faculty, staff, and students) and Redressal Authority of University or Local Administration (Police/ Bureaucrats). It also promotes women synergy to create & enable the environment conducive to social change. Amity University Gurugram is strictly against any form of harassment specifically sexual harassment in the campus area. The Policy for prevention of sexual harassment is in place and fully functional. There is a grievance redressal mechanism for all the students and staff. The protection of the person undergone sexual harassment is also meticulously followed. So far the university has not recorded any incidence of sexual harassment.



Guidance and Counselling

Modern society is accompanied with perplexities and challenges. Counselling Cell at Amity University intends to empower all students with special care to the female students with non-judgemental approach to face these challenges effectively through professional guidance and counselling programs. This cell function in respect to the

student's privacy so that they are free to explore their concerns, feelings, and behaviours. Personal Counselling Sessions are conducted at the Centre by qualified and experienced Counsellors to help students resolve any kind of problems that they might face. These are client-oriented and are conducted on a one-to-one basis with each student where the Counsellor brings an

utterly non-judgemental attitude to the table. Besides career-related problems, personal issues are also dealt with. Confidentiality is a legal requirement of counselling and is strictly maintained. Thus, the Counselling Cell provides a platform for students to pursue both their professional and personal goals with greater self-awareness, self-esteem, understanding and a focus.



Creche Facility

Creche facility is provided to the children of faculty during the office hours. This move brings relief for women employees, who struggle and worry about their children while they are at work. The creche is managed by experienced staff to give the best motherly care to the children. It's a significant step forward to help its employees to continue their professional carrier without affecting their family. working mothers are given a

stress-free environment by offering childcare services for their kids during working hours. Women workers who suffer and worry about their children while they work will be relieved by this facility. Creche facility also conducts extra-curricular activities during the stay of children. It has all play equipment, wide range of age- appropriate toys and books etc so that children learn through play and creative activities.



EVENTS AND SOCIAL OUTREACH ACTIVITIES

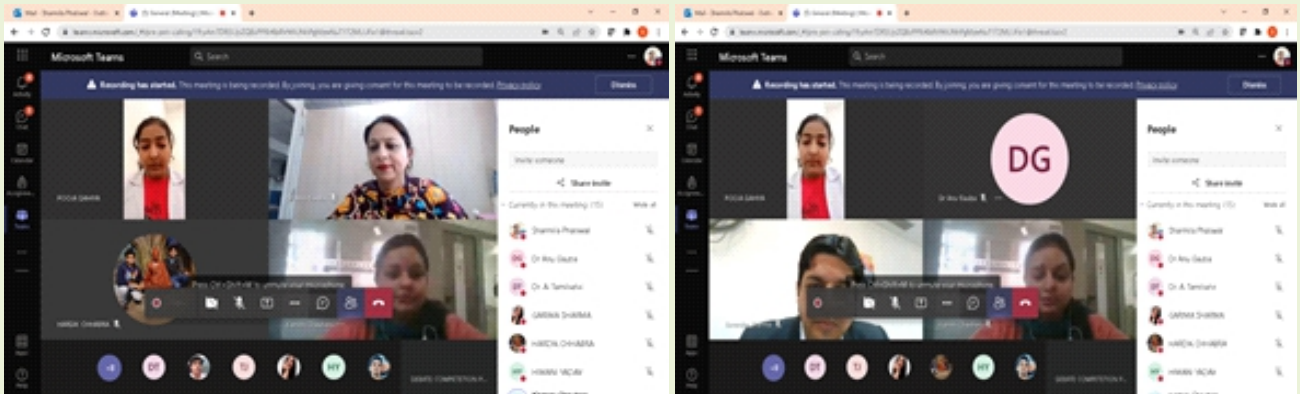
Many efforts have been done by the university to promote and encourage women's applications in the various programs at the University. This includes school outreach programs in the schools situated in the local vicinity and adjacent cities to sensitize and motivate girl students for further studies. Various career counseling sessions and open house is organized for girl students. Students from nearby schools are invited to the university for visits and


activities to expose them to university life. There have been many events as "tips to score high marks in class 12 exams, top career choices after 12th , Startup/ Success stories, how to crack interviews for final year graduates, focusing on Interview preparations, personal grooming, CV preparation and foreign education. The University has collaborated with education portals and leading educational institutions to promote and encourage girl students. Evidence: 1) Details to Promote Women Applications, 2) Collaborations.




The women volunteers of Amity university participated in the plantation drive and have planted around 1400 plants in the campus to promote pollution free environment. The myriad events have been conducted during

the year 2020-21 focusing on the marginalized gender. The events included – international women's day celebration, international girl child day celebration and debate on women empowerment.





on the occasion of
 International
Women's Day


**Amity School of Liberal Arts,
 Amity University Haryana**

**ORGANIZING
 PANEL DISCUSSION ON
 GENDER EQUALITY TODAY FOR A SUSTAINABLE TOMORROW**

8th March 2022 | 3:30 PM to 4:30 PM

VENUE: BLD 07, B-BLOCK BASEMENT

PANELISTS

Prof. Hemant Kumar Jha, Coordinator M.A. English, ASLA, AUH
 Dr. Vinod Kumar, Assistant Professor, ASLA, AUH
 Dr. Sapna Sharma, Assistant Professor, ASLA, AUH
 Dr. Shradhanvita Singh, Coordinator Political Science, ASLA, AUH
 Dr. Pooja Thakur, Coordinator History, ASLA, AUH

COORDINATORS

Dr. Supriya Sanja,
 Coordinator, Amity Centre for Sanskrit and Indic Studies, Amity School of Liberal Arts

Dr. Ashish Singh
 Assistant Professor, Amity School of Liberal Arts

Empowering under privileged girls with early education

Education can be instrumental in shaping the society towards progress. We believe that when a girl is educated, she is empowered. With this noble vision in mind Amity University has initiated and implemented impact- driven initiatives across sensitive and important issues such as empowering women by providing free education, uniforms, books, meals, and healthcare to underprivileged girl child with the help of Club that is "UDAAN".



Workshop

The Workshop "LAWS OF WOMEN, CHILDREN ETC" was conducted on 16-Feb-2022 by Amity Law School. The aim of creating awareness among villagers on the topics like Gender Discrimination, Domestic Violence, and Protection of Children from Sexual Offences, Female Feticide, Dowry Prohibition, Cruelty and Sexual Harassment at workplace.

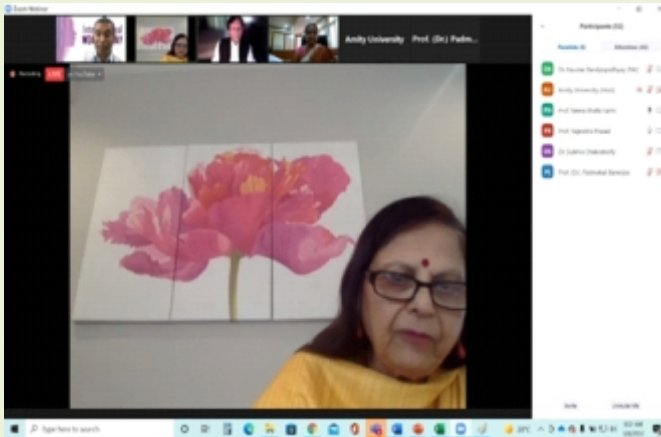


Esteemed professors and legal panel to aware the villagers regarding laws of children and women.

Villagers actively participating in the workshop.

Guest Lecture:

The Guest Lecture "International Women's Day celebration" was conducted on 08-Mar-2022 by Amity Institute of Biotechnology. The participant Students were encouraged when they listen from a renowned scientist about their journey and work.



Prof. Neera Bhalla Sarin addressing the event



Prof. Rajendra Prasad introducing the main speaker.

Society Outreach Program:

The Society Outreach Programme "Women's Day Anganwadi Visit" was conducted on 08-Mar-2022 by Amity School of Architecture and Planning. Awarded women's of Panchgaon about Gender equality and women rights and how to create something useful out of waste material.



Faculties interacting with women and children in Anganwadi



Faculties and students from ASAP Department with Anganwadi

Panel Discussion:

The Panel Discussion on “Gender Equality today for a sustainable tomorrow” was conducted on 08-Mar-2022 by Amity School of Liberal Arts. Participated students learnt To mark and celebrate the social, economic, cultural and political achievements of women and raise awareness about women's equality and accelerate gender parity.



Audience actively listening and participating in the discussion.



Students giving the performance on Gender Equality



Esteemed Panellist admiring the student's performance



Panellist addressing the audience.

COLLABORATION, AWARDS & RECOGNITIONS:

Faculty Recognitions in alignment with SDG 5

S. No.	Institute	Faculty Name	Award	Awarding body	Year
1	ACC	Dr. Deepika Dhamija	Women Researcher Award	VDGOOD Technology Factory	2021
2	ACC	Ms. CA Kamakshi Mehta	Women Researcher Award	VDGOOD Technology Factory; Goa	2021

The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations.



**Achieve gender
equality and
empower all
women and girls**



AMITY
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REPORT ON SUSTAINABLE DEVELOPMENT GOAL



YEAR 2021-22



Preamble

Sustainable Development Goal 6 aims to ensure availability and sustainable management of water and sanitation for all. Water and sanitation are critical to the health of people and the planet. SDG 6 not only addresses the issues relating to drinking water, sanitation and hygiene, but also the quality and sustainability of water resources worldwide. Improvements in drinking water, sanitation and hygiene are essential for progress in other areas of development too, such as nutrition, education, health and gender equality. SDG 6 relates widely to other SDGs - safe water and sanitation are key foundations for good health (SDG3). By managing our water sustainably, we are also able to better manage our production of food and energy (SDG6 and SDG7) and contribute to decent work and economic growth (SDG8). Moreover, we can preserve our water ecosystems, their biodiversity (SDG14), and take action on climate change (SDG13).

Amity University Haryana contributes to clean water and sanitation by creating awareness through teaching and learning, through research and minimizing water consumption by adapting water conservation policies and recycle & reuse the waste water on campus.

Teaching and Learning

Programs related to Sustainable Development Goal (SDG) 6, which focuses on clean water and sanitation, are crucial in Amity University, as in any educational institution, for several reasons, Amity University can play a significant role in educating students, faculty, and staff about the importance of clean water and sanitation. The university can raise awareness about the global water crisis and the importance of access to clean water and sanitation facilities by offering

relevant courses, seminars, and workshops. Amity University can facilitate research projects related to SDG 6, contributing to the development of new technologies and solutions for improving water quality, sanitation systems, and water resource management. The university offers programs to train students and professionals in the field of water and sanitation. This can help build a skilled workforce to address the challenges associated with water and sanitation access. Amity University can lead by example by implementing sustainable water management practices on its campus. This includes reducing water wastage, promoting water recycling, and ensuring proper sanitation facilities for students and staff. Amity University can engage with local

Programes	School/ Institute
B.Sc. (Hons) - Earth Sciences	ASEES
M.Sc. - Environmental Sciences & Management	
B.Tech (Civil Engineering)	ASET
M.Tech (Civil Engineering)	
Bachelor of Planning	ASAP
Master of Planning (Urban and Regional)	
Bachelor of Architecture	

communities to address water and sanitation issues in the surrounding areas.

This can involve initiatives such as providing clean water access, sanitation facilities, and hygiene education to underserved communities. By incorporating SDG 6 into its

curriculum and institutional policies, Amity University can contribute to a holistic approach to sustainable development. It can ensure that students are well-versed in the interconnectedness of different SDGs and how clean water and sanitation underpin many other aspects of development. By emphasizing the significance of SDG 6, Amity University can foster a sense of responsibility towards the global community and the planet.

Research and Collaborations

Research plays a crucial role in advancing progress toward Sustainable Development Goal 6 (SDG 6), which focuses on ensuring clean water and sanitation for all. At Amity University Haryana we thrive to do Research that provides policymakers, governments, and organizations with the necessary information and data to make informed decisions about water and sanitation management. It helps identify gaps, assess needs, and develop evidence-based strategies and policies to achieve the goal.

Faculty members are involved in various cutting edge research related to water purification and conservation. Some of the research topics are as follows:

- Influence of Geogenic vs Anthropogenic Pollutants on Ground Water Quality in Igneous Aquifer in Dalton Ganj, Jharkhand, India (Tentative)
- Ground Water Quality Assesment over Selected Sites of West Bengal (Tentative)
- Development & Characterization of Mixed Micellar Lipid Formulation for Bioavailability Enhancement of Poorly Water Soluble Hepatoprotective Phytoconstituent
- Revisiting Ground Water Laws in India for Sustainable Resource Management.
- Integrated Urban Water Management System for Smart City, Case Study – Gwalior-

Urban Water Resource Planning and Management Approaches – A Case Study of Gondia District (MHS)

- Synthesis, Characterization and application of Cobalt Zinc nanoferrites in water purification.
- Development and evaluation of Chitosan-based polyelectrolyte complexes as coagulants for simulated industrial paint wastewater treatment.
- Synthesis and characterization of calcium and cobalt doped mG-zN ferrites for water purification.
- Use of Modified Rice Husk: A Potential Matrix for Water Purification.
- Study of Groundwater Contamination in Manesar and its Effect on Health.
- A comparative study for heavy metal removal efficiency of nanoparticle and nanocomposite from wastewater
- Nanobiocomposite and piezophotocatalyst for remediation of chromium and organic pollutants from Tannery wastewater.

The faculty members have collaborations with leading research labs and institutions for conducting the research work at AUH. Some of our collaborators are:

- Dr. Syed Hamim Jeelani, Assistant Professor, Department of Civil Engineering, Koneru Lalshmaiah Education Foundation, Deemed to be University, Vaddeswaram-522502, Andhra Pradesh
- Dr. Neeraj Kumar Sethiya, Associate Professor, DIT University, Dehradun, Uttarakhand
- Prof (Dr) Bharti Kumar, Director, Centre for

Some of the high impact research publications are listed below:

1. Joshi T, Parkash O, Krishan G. CFD modeling for slurry flow through a horizontal pipe bend at different Prandtl number. *Int J Hydrogen Energy* 2022;47(56):23731-23750.
2. Punia P, Aggarwal RK, Kumar R, Dhar R, Thakur P, Thakur A. Adsorption of Cd and Cr ions from industrial wastewater using Ca doped Ni-Zn nanoferrites: Synthesis, characterization and isotherm analysis. *Ceram Int* 2022;48(13):18048-18056.
3. Fadnavis S, Chavan P, Joshi A, Sonbawne SM, Acharya A, Devara PCS, et al. Tropospheric warming over the northern Indian Ocean caused by South Asian anthropogenic aerosols: Possible impact on the upper troposphere and lower stratosphere. *Atmos Chem Phys* 2022;22(11):7179-7191.
4. Gupta A, Kumar M, Ghosh P, Swati, Thakur IS. Risk assessment of a municipal extended aeration activated sludge treatment plant using physico-chemical and in vitro bioassay analyses. *Environ Technol Innov* 2022;26.
5. Sonbawne SM, Fadnavis S, Vijayakumar K, Devara PCS, Chavan P. Phase-Resolved Lockdown Features of Pollution Parameters Over an Urban and Adjoining Rural Region During COVID-19. *Front Environ Sci* 2022;10.
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ASSESSMENT OF FLUORIDE AND NITRATE CONTAMINATION PROBLEM IN THE GROUNDWATER OF MANESAR, GURUGRAM, HARYANA, INDIA: A CASE STUDY

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Abstract

It is impossible to survive without water . Around 80 percent of the world's wastewater is dumped directly in the groundwater which goes back to the environment polluting rivers, lakes, and oceans unsafe drinking water kills more people as compared to any other epidemic. It is said that less than 1 % of earth fresh water is actually assessable to us . In the present study ,the physico – chemical characteristics (Fluoride, Nitrate) of the groundwater of Manesar area of District Gurgaon, Haryana, India were assessed for its consumption for drinking purposes. A total of 30 samples were taken from near about 12 sampling sites all the samples were from borewells, tubewells. Water samples were tested in lab for the following physico- Chemical parameters like(TDS) Total Dissolved Solids,(EC) Electrical conductivity, Fluoride, Nitrate. The results were compared with the Standards prescribed by(WHO) and Bureau of Indian Standards (BIS) . Standard deviation and Standard Error calculation is also being done on the sample concentration of Fluoride and Nitrate . (EC) Electrical conductivity in all samples was found above 400 μ /cm and (TDS) value in all samples was found above 500 mg/l. Fluoride concentration found in few village samples of Manesar area is found to be above 1.5 mg/l (limit prescribed by WHO . Where as some of the other villages like have fluoride concentration in their groundwater samples with in limit prescribed by WHO (1.5mg/l) . Nitrate concentration found in the ground water samples some of the village found to be above (45 mg/l) (limit prescribed by WHO) where as in groundwater samples of few village samples were found to be having nitrate concentration between 40 to 45 mg/l (limit prescribed by WHO) . It is advised to community to use ground water only after properly treating it to avoid getting affected by Diseases caused by the contamination of Drinking water.

Introduction

Ground water contamination commonly occurs when man made products like gasolme, oil, road salts among other harmful wastes makes their way into the groundwater making it unsafe for drinking purpose.

In general the two major contributors of groundwater containments are industrial activities and landfill sites. When the contaminants from these mentioned activities reaches aquifer recharge zones it gets mixed up with groundwater thus making unfit for human use. Studies have shown that when the contaminant water with Fluorides and Nitrates is consumed for a longer duration it affects human health. Some of the common disease like Fluorosis, Arsenicosis and methemoglobinemia occurs with the excess of consumption of Fluoride, Nitrate and Arsenic present in the ground water.

Fluoride contamination is common all around the world. Some of the main sources of fluoride in ground water are from Fluorapatie, a common mineral,, by-products from oil refining, steel manufacturing and brick



PDF

Research Article

Groundwater Contamination and its effect on health: Survey study of the Farmers in Manesar Industrial area, India.

Priyanka Yadav, Deepika Pandey

This is a preprint; it has not been peer reviewed by a journal.



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Abstract

The present study evaluated the effect of groundwater pollution on the health of the people specially farmers living near industrial area of Manesar. Several studies have shown the presence of contaminants in groundwater of many districts of Haryana state. Manesar is

Governance & Mandates

Amity University Haryana has implemented a comprehensive set of preventative measures to avoid water pollution and ensure the safety of its water system. These practices contribute to maintaining a clean and sustainable environment.

The procedures mentioned are summarized as follows:

Regular cleaning of all buildings' overhead water tanks and water coolers.

- Regular maintenance is crucial to prevent the buildup of contaminants.

Ensuring that all above water tank covers are correctly closed and latched.

- Proper sealing of tanks is essential to keep out pollutants.

Minimizing the use of chemicals for cleaning water tanks.

- Reducing chemical usage helps maintain water quality.

Advising locals to avoid pouring fat and grease down the drain and to use phosphate-free detergent and dish-cleaner.

- Reducing harmful substances in wastewater is important for water quality.

Proper medical waste disposal at AUH.

- Safely managing medical waste helps prevent contamination.

Informing residents not to flush anything down the toilet.

- Avoiding flushing non-biodegradable or harmful items into the sewage system.

Employing organic farming methods and refraining from using pesticides and herbicides.

- Reducing the introduction of chemicals into the environment.

Sending all effluents to an Effluent Treatment Plant (ETP), including waste from the kitchen, laundry, and labs.

- Proper waste management ensures contaminants are treated before release.

Recycling all wastewater through sewage treatment and effluent treatment plants with regular quality tests.

- Ensuring safe and clean water through thorough treatment and monitoring.

Conducting daily in-house RO treated water quality testing and periodic external quality testing.

- Regular quality assessments help maintain safe drinking water.

Using CPVC pipelines to prevent bacterial growth in drinking water.

- Choosing suitable materials helps maintain water quality.

Conducting regular inspection of water pipelines to prevent leaks and damage.

- Preventing physical damage to infrastructure helps maintain water quality.

Conducting awareness campaigns, seminars, workshops, and street plays to promote a pollution-free campus.

- Educating and involving the community in pollution prevention.

These measures collectively demonstrate a strong commitment to water quality and environmental sustainability at Amity University Haryana. They are crucial for ensuring the health and well-being of the university's campus and its surrounding environment.



STP Plant at Amity University Haryana



RO Plant



Drinking Water Facility

Water Conscious Building Standards

The approach taken by the AUH in maintaining zero water discharge campuses is commendable and aligns with sustainable and environmentally conscious practices. The recycling and treatment of water for various purposes like horticulture and sanitation instead of discharging it outside the campus,

helps in conserving water resources and reducing environmental impact.

Conducting annual internal audits is a good practice to ensure that the water treatment facilities such as Sewage Treatment Plants (STPs), Reverse Osmosis (RO) Water Plants, and Effluent Treatment Plants are functioning effectively. Regular inspection helps identify

any issues, maintain compliance with regulation and ensure the quality and efficiency of the water treatment processes.

Moreover, the restoration of groundwater suitable for drinking and utilizing government-supplied water from plants also contributes to sustainability and responsible water management. This comprehensive approach not only reduced water wastage but also promotes a self-sustaining system within the campus. Consistently monitoring, maintenance and adherence to such practices not only benefits the immediate environment but also serves as a model for other institutions aiming to implement sustainable water management systems.

An outline of every technique described is provided below:

1. Encourage water-saving techniques to achieve zero water wastage: This is an important step in raising awareness and fostering a culture of water conservation among students, faculty, staff, and the broader university community. This could involve educational campaigns, workshops, and promoting individual responsibility for water conservation.

2. Maintain a close eye on and reduce the university's water usage: Regular monitoring of water consumption is crucial for identifying areas where improvements can be made. Tracking water usage data can help the university set targets for reduction and assess the impact of conservation efforts.

3. Native plants are planted to conserve water: Using native plants in landscaping and green spaces can significantly reduce the need for irrigation. Native plants are adapted to local conditions and generally require less water, making them a sustainable choice for landscaping.

4. Encourage the planting of native trees near and around the university to save water: Native trees, like native plants, can help in reducing the water requirements for landscaping. Trees also provide additional benefits such as shade and improved air quality, which can enhance the overall sustainability of the campus.

5. Evaluates potential locations on campus where alternative water systems could be installed on a regular basis: This involves assessing the feasibility of alternative water sources or systems, like greywater recycling, stormwater harvesting, or water-efficient irrigation. Identifying suitable locations for such systems is a proactive step toward sustainable water management.

6. Continue using cutting-edge water-saving technologies like rainwater collection, water reusing, etc.: Implementing advanced technologies, such as rainwater collection and water reuse systems, can significantly reduce the demand for fresh water and lower utility costs. These technologies are at the forefront of water conservation efforts and can make a substantial impact on sustainability.

Overall, the university's approach seems comprehensive and aligned with best practices in water efficiency and sustainability. It's important to continually monitor and evaluate the effectiveness of these methods and make adjustments as needed to achieve long-term water conservation goals.

Throughout the aforementioned interventions, the campus continues to support student, faculty, and staff initiatives to establish sustainable water usage systems. Additionally, the National Building Standard Code 2005–2016's building standards to minimize water use is utilized.

Amity University Haryana (AUH) is clearly committed to water conservation and sustainability through a range of initiatives and practices. The main water-saving strategies and actions that AUH has implemented are outlined below:

1. Continuous Water Availability: AUH ensures that water is available round-the-clock for various purposes, including drinking, which discourages unnecessary water storage during a crisis.

2. Diversified Water Sources: The university utilizes water from multiple sources, including wells, bore wells, rainwater, and recycled water. This reduces the institution's dependence on a single water source.

3. Rainwater Harvesting: All units on campus, including academic buildings, dormitories, faculty/staff housing, and the military training complex, are designed to facilitate groundwater recharge through rainwater collection. Stormwater is channeled into rain pits designed for this purpose, preventing waterlogging and wastage.

4. Leak Detection and Maintenance: AUH promptly addresses water leaks and conducts regular maintenance to minimize water loss.

5. Laundry Services: The university provides laundry services for both residents and workers, with wastewater from laundry operations being recycled for further use.

6. Canteen and Mess Practices: Utensils from canteens and mess facilities are cleaned in batches to conserve water.

7. Student Awareness: AUH conducts awareness programs and displays posters to educate students about responsible water usage, particularly during activities like brushing, shaving, and bathing.

8. Automated Water Tanks: The university has installed sensor-based, automated water tanks with 24-hour monitoring of water levels. This system ensures efficient water management and helps prevent overflow.

Overall, AUH has taken comprehensive measures to minimize water consumption and maximize water reuse, reducing the burden on local water sources and promoting sustainable water practices on its campus.



Water Harvesting at AUH

University Infrastructure

Amity University Haryana uses subterranean bore wells, to extract all the water required for domestic and drinking purposes on campus. Recycled water is used for irrigation, gardening, chiller plant cooling towers, and civil construction projects.

An overview of campus water consumption and management is provided below:

Water Source: The University primarily relies on underground bore wells to extract water for domestic and drinking purposes on its campus. Water from these bore wells is stored in six underground water tanks, each with a capacity of 50,000 liters. The university extracts approximately 3 lac (300,000) liters of water daily from these bore wells.

Recycled Water: In addition to bore well water, recycled water is used for purposes such as flushing, gardening, cooling towers for chiller plants, and civil construction projects. This is a sustainable practice to reduce the demand on fresh groundwater.

Water Usage: The university uses approximately 3 lakh (300,000) gallons of water each day, with the majority of this water coming from the bore wells. The total water usage includes water for domestic, drinking, and other campus needs.

Overhead Tanks: The overhead tanks on campus are equipped with sensors that detect when water levels are low and automatically refill them with water from the bore wells. This ensures a continuous and reliable supply of water for the university's 4653 people, including staff, faculty, housekeepers, and students.

Efficient water management is crucial, especially in regions where groundwater resources are relied upon for daily needs. Monitoring water usage, promoting recycling, and installing water meters are all steps in the right direction to conserve and manage water resources responsibly.

Types of Wastewater & its Treatment

Amity University campus is committed to implementing a sustainable water consumption system. Using sewage treatment plants (STPs) and effluent treatment plants (ETPs) to treat wastewater is a responsible and environmentally friendly approach.

Types of Wastewaters

Drainage water: This likely includes wastewater from sinks, showers, and other sources that do not contain hazardous chemicals.

Effluent water from laboratories, laundries, and cafeterias: This type of wastewater may contain more contaminants and chemicals due to its source.

Wastewater Treatment

Sewage Treatment Plants (STPs): These are designed to treat sewage and other types of wastewaters, typically from residential and industrial sources. In this context, they are likely used to treat drainage water and possibly other wastewater streams.

Effluent Treatment Plants (ETPs): ETPs are specifically designed to treat industrial effluents, which can contain various pollutants and chemicals. In this case, ETPs are used to treat wastewater from laboratories, laundries, and cafeterias.

Water Reuse

The treated water from the STPs and ETPs is reused in various areas, including horticulture, farm irrigation, and toilet flushing. This is a sustainable practice that reduces the demand for fresh water and minimizes environmental impact.

Capacity: The combined daily capacity of the STP is 9 lac litres (assuming "lac" represents 100,000, this would be 900,000 litres or 900 cubic meters). The ETP has a daily capacity of 50,000 litres (or 50 cubic meters).



ETP



ETP Laundry

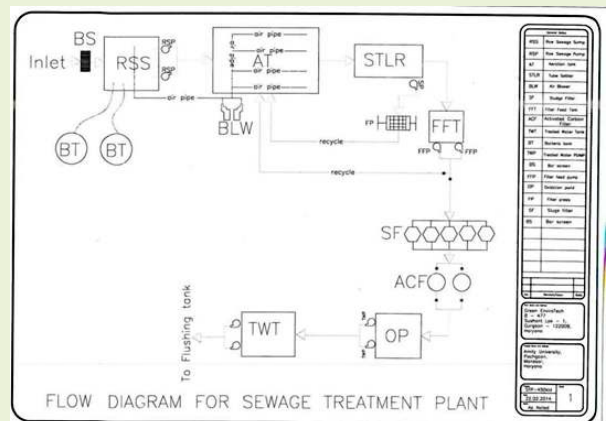


Pump Room



Oxidation Pond

These initiatives not only promote water conservation but also contribute to reducing the environmental footprint of the campus. It's important to continue monitoring and maintaining these systems to ensure their effectiveness and long-term sustainability.



Preventing Water System Pollution

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These measures collectively demonstrate a strong commitment to water quality and environmental sustainability at Amity University Haryana. They are crucial for ensuring the health and well-being of the university's campus and its surrounding environment.

Provide Free Drinking Water

AUH goes above and beyond to ensure that visitors, employees, and students have free

access to clean, safe drinking water. 47 water coolers can be observed on campus, dispersed among the residence halls, AIMC, academic buildings A, B, C, and D, and other locations.

Providing free drinking water in university is a positive and essential service for several reasons, as it contributes to the well-being and sustainability of the campus community.

Hydration and Health: Access to free drinking water is crucial for the health and well-being of students, faculty, and staff. Proper hydration supports cognitive function, concentration, and overall physical health.

Sustainability: Offering free drinking water encourages the use of reusable water bottles and reduces the consumption of single-use plastic bottles. This aligns with sustainability goals and reduces plastic waste on campus.

Inclusivity: Providing free drinking water is an inclusive measure. It ensures that everyone, regardless of their financial situation, has access to a basic necessity.

Convenience: Accessible water fountains and filling stations make it convenient for people to stay hydrated throughout the day, which is particularly important in academic and work settings.

Promotion of Healthy Habits: Encouraging the consumption of water over sugary beverages is part of promoting a healthy lifestyle. This can contribute to a culture of wellness on campus.

Reduced Environmental Impact: Reducing the use of single-use plastic bottles and promoting the use of refillable containers can significantly reduce the university's environmental footprint.

Events and Social Outreach

Plantation Drive under the campaign of "MISSION GREEN"

On the occasion of 75th Independence Day, Plantation Drive at AUH Campus was conducted by Amity School of Earth and Environmental Studies in collaboration with the Horticulture Department. The event was conducted to create awareness towards the importance and benefits of environmental conservation and plantation including use of each parts of neem plants in our daily life. Faculty discussed the urgency of latest techniques that would benefit mankind by by creating solution which is beneficial to both environment and society and expressed concerns for environmental restoration, Green Energy, and environmental conservation.

Through the MISSION GREEN we motivate our youth to protect the environment and hope that we will be successful. The First Phase of plantation has been successfully completed on August 15, 2021 under the supervision of Prof. I.S. Thakur & Dr. Viveak Ballyan and Second Phase was be scheduled on August 27, 2021. Under the plantation drive, 150 trees (Neem, Papri, Alstonia (Chitvan) and Jamun) were planted at along the boundary wall from Gate No. 3 towards Hostel Backside and up to STP Plant and also along the boundary wall from Gate No. 2 towards Amity Dog Academy total 75 trees were planted. Team members of the Environmental and Consumer Protection Foundation (ECPF) (approx. 20 numbers) and the faculties, staff members and students participated in plantation drive and they were highly interested to become part of the Green mission.



Plantation Drive at Amity University Haryana



Environment Consciousness Program conducted in collaboration with Garg Foundation, Noida

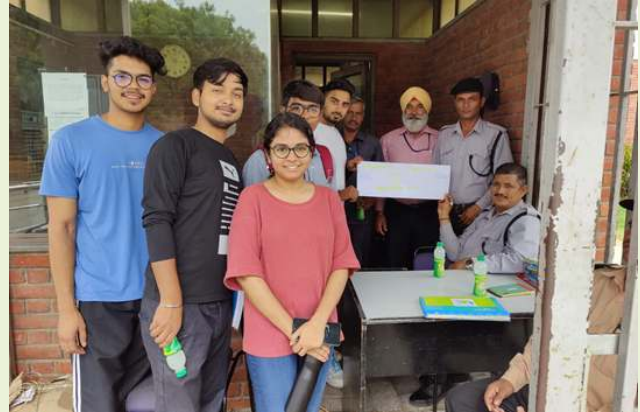
प्यास: A Social Welfare Drive

Students of Amity of School of Liberal Arts Amity University Haryana organized a social welfare drive, " " on 22nd May 2022 to provide bottled mineral water and bottled soda water to the people working on construction sites. Mehak Chopra, Akshat Srivastava, Jayshree Kaushik, Siddharth Mittal and Jatin Dhanda, students of B.A.(H) English visited various places near Gurgaon and interacted with workers working in the hot weather and

scorching summer. During this drive, they got to know the plight of these people and about their strong will power to work beyond their capabilities so that they can make both ends meet and feed their families. Along with the bottled water, these students talked to them to bring a smile on their faces and promised to come back next month with some new initiatives for these people.



A social welfare drive, “प्यास” on 22nd May 2022 to provide bottled soda water to the people working on construction sites.



A social welfare drive, “प्यास” on 22nd May 2022 to provide bottled water to the people working on construction sites.



A social welfare drive to provide Clean Water and Food to Children at Construction Site

Guest Lecture “Nanotechnology: A prospective towards cleaner environment”, conducted on 24th Sept 2021

The Guest Lecture “Nanotechnology: A prospective towards cleaner environment” was conducted on 24-Sep-2021 by Amity School of Science Engineering and Technology. To let students, scholars know how can nanoparticles,

nanomaterials be used as a remedy in treating day to day problems like water treatment, chemical oxygen demand, mutagenicity, impacting photosynthesis, inhibiting plant growth etc. Nanocomposites are intelligent to eliminate bacteria, viruses, and inorganic and organic pollutants from wastewater due to precise binding action. Water purification methods are the focus and attention of the many scientist and governmental agencies.

Innovation Strategy for Universities to Create Opportunities of Entrepreneurship in Mitigating Environmental Issues on National Pollution Control Day 02-12th-2021

Amity School of Earth and Environmental Sciences (ASEES), Amity University Haryana along with Institute Innovation Council (IICs), takes the opportunity to celebrate National Pollution Control Day on 2 December 2021 by organizing an online webinar and panel



discussion with eminent Keynote Speaker Dr. B K Sahu, Regional Manager & Head, NRDC - Intellectual Property and Innovation Centre, Innovation Valley, Vishakhapatnam, Gol on the "Topic: Innovation Strategy for Universities to Create Opportunities of Entrepreneurship in Mitigating Environmental Issues".

Webinar on "Green Technologies for mitigation of Global Warming & Climate Change" on 4th April 2022

The Department of Civil Engineering, Amity School of Engineering Department (ASET) coordinated a Webinar on "Green Technologies for mitigation of Global Warming & Climate Change" The theme was on increasing trend of average temperature of the air near Earth's surface, the threat of global warming appears to be true. Research and Scientific studies have revealed that the global atmosphere concentrations of Carbon Dioxide, (CO₂), Methane (CH₄) and Nitrous Oxide (N₂O) have increased due to anthropogenic activities. These gases are called Green House Gases (GHGs) responsible for increasing global average temperature and causes adverse effects on ecosystem. The coordinators were Dr HRP Yadav, Professor and Head, Civil Dept. Ms Sakshi Gupta, Assistant Professor and Dr Tanvi Gupta, Assistant Professor, Department of Civil Engineering, ASET

Society Outreach Program or Awareness Program (Role play and Plantation drive)- Jamia Public School, Pataudi

Global warming and excessive raise in Earth temperature is the biggest problem in present times. We are lacking in protecting the sources of water and Poor hand hygiene leading to many water borne diseases in children. So with this inspiration B.Sc Nursing IV sem students from Amity College of Nursing were planned to conduct Mass awareness programme in Jami Public school, Bhiwadi.

On the occasion of WHO Day, 18 students from B.Sc Nursing IV sem, Amity College of Nursing,

ACON were conducted mass awareness programme on Save water & Hand Hygiene at Jamia Public school located in Pataudi. Role play was organised and conducted systematically for primary school students on the following topics:

- Importance of water
- Hand Hygiene
- Water borne diseases and its prevention
- Plantation drive

Mr. Abdul Khalid, Head master of Jamia Public school was a convener of this event and coordinated with nursing students and helped to convey the message of school children.

... हम सभी के लिए स्वास्थ्य, पहली प्राथमिकता

अटल हिंद संवाददाता

पटौदी । हम सभी के लिए स्वास्थ्य रहना पहली प्राथमिकता होनी चाहिए। सही मायने में हमारा अपना स्वास्थ्य ही सबसे बड़ा धन है। यह एक ऐसा धन है, जो एक बार हाथ से निकल गया देवारा से प्राप्त करना बहुत बड़ी चुनौती बन जाता है। स्वस्थ व्यक्ति ही स्वस्थ समाज और स्वस्थ राष्ट्र निर्माण में अपना योगदान प्रदान करता है। हम अपनी दिनचर्या और खानपान में सावधानी रखते हुए अपने आप को पूरी तरह से स्वस्थ रख सकते हैं। यह बात अमेटी कॉलेज ऑफ नर्सिंग टीम के सदस्यों के द्वारा पटौदी के जामिया अलह सुन्नत मदरसा में यहां पढ़ने वाले छात्र



छात्रों एक नाटक के माध्यम से समझाई गई।

अमेटी कॉलेज ऑफ नर्सिंग की टीम की तरफ से कॉलेज के प्रिंसिपल डॉ तमिल सेल्वी, सहायक प्रोफेसर नवीन झा, अंजना चंद्रन व अन्य ने इस मौके पर मदरसा परिसर में पढ़ने वाले

छात्र छात्रों के सहयोग से विभिन्न प्रकार के पौधे भी लगाए। पौधे लगाने के साथ ही मदरसा के छात्र छात्रों को बताया गया कि पेड़ पौधों का हमारे अपने जीवन में और पर्यावरण को शुद्ध रखने में कितना महत्वपूर्ण योगदान है। इसी मौके पर बच्चों को इस बात के

लिए प्रेरित किया गया कि जो पौधे बच्चों के द्वारा लगाए गए हैं, बड़े होने तक इन पौधों की देखभाल भी अवश्य करें। इसी मौके पर मदरसा के छात्र छात्रों को पानी के महत्व के विषय में भी जानकारी दी गई। पानी के दो ही स्रोत हैं, भूमिगत जल और बरसात। पानी को अनावश्यक रूप से बिल्कुल भी बर्बाद नहीं करना चाहिए। पानी की एक-एक बूंद बहुत कीमती है। पानी के बिना इंसान और जीव दोनों का जीवन बहुत लंबे समय तक नहीं चल सकता। पानी के सीमित संसाधनों को ध्यान में रखते हुए पानी की अधिक से अधिक बचत करने की बचपन से ही आदत डालना जरूरी है।

Role play on Save water by Amity College of Nursing students news published in Newspaper

(Date: 8th April 2022)



Amity College of Nursing students and faculty inaugurated plantation drive



Plantation by Nursing students



Amity College of Nursing students with Jami Public School, Patuadi children and Teaching faculties during the stage programme

Creating Awareness through News & Social Media

Dr Kushagra Rajendra, HoD, Amity School of Earth and Environmental Sciences actively participate in creating awareness about the impact of festivals in India, Governmental policies on the environment through interviews conducted by News Channels and through Social media. Some of the links to these news reports are listed below:

- Kushagra Rajendra (2022) पर्यावरणीय अंतर्संबंधों के अंतर्जाल की अनदेखी, हस्तक्षेप, राष्ट्रीय सहारा, 04/06/2022.
http://rashtriyasahara.com/imageview_21193_131437090_4_9_04-06-2022_0_i_1_sf.html

- Kushagra Rajendra (2021) जलवायु कूटनीति के आइने में भारत, हस्तक्षेप, राष्ट्रीय सहारा, 30/10/2021.
http://rashtriyasahara.com/imageview_14104_98394556_4_9_30-10-2021_1_i_1_sf.html
- Kushagra Rajendra (2021) नये नजरिए की जरूरत?, हस्तक्षेप, राष्ट्रीय सहारा, 28/08/2021.
http://rashtriyasahara.com/imageview_43635_98604084_4_9_28-08-2021_3_i_1_sf.html
- Kushagra Rajendra (2021) प्रकृति सम्मत विकास की सीख, हस्तक्षेप, राष्ट्रीय सहारा, 14/08/2021.
http://rashtriyasahara.com/imageview_42307_91056288_4_9_14-08-2021_4_i_1_sf.html

Unnat Bharat Abhiyan-Society Outreach Research Project funded by Ministry of Human Resource Development

Ministry of Human Resources Development (MHRD), Government of India has launched the national program called Unnat Bharat Abhiyan (UBA), with the vision to involve professional and higher educational institutions in the development process of rural areas in the country to achieve sustainable development and better quality of life. Indian Institute of Technology, Hauz Khas, New Delhi has been designated to be the National Coordinating

Institute by the Ministry. Amity University Haryana has been selected to participate in UBA as a Participating Institute (PI) by MHRD. Under the UBA program AUH has selected the following five villages to conduct developmental activities:

1. Chandla
2. Fazalwas
3. Gwalior
4. Kukrola
5. Fakharpur

Household Survey to know the condition of their daily life and activities was conducted, Sanitation and water condition was an important aspect covered under the project and solutions for better conditions were proposed.



Village Survey Conducted by AUH at five selected villages under UBA

The survey was conducted to identify the availability clean water in the villages and the steps taken to bring portable water to every household by the local administration. The UBA team demonstrated the various ways of purifying water and how to keep the waterbodies clean and healthy. The team also emphasized the need of keeping the surroundings clean to prevent water and soil pollution.

Amity University Haryana is fully committed to achieving the Sustainable Developmental Goals through its meticulously designed Environmental friendly policies, Innovative Teaching Learning Pedagogy, Research and Collaborations. AUH takes the responsibility to educate the local people in the nearby villages through community engagement programs undertaken by faculty and students across all schools.

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CLEAN WATER
AND SANITATION





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REPORT ON SUSTAINABLE DEVELOPMENT GOAL

7 AFFORDABLE AND
CLEAN ENERGY



YEAR 2021-22



PREAMBLE

The SDG 7: Clean and Affordable Energy report offers a summary of progress on energy access, energy efficiency, renewable energy, clean cooking, and international cooperation to advance SDG 7 at Amity University Haryana. The report provides updated statistics for each of the indicators emphasizing on the policy measures taken on priority areas and actions taken to implement the SDG goals. The progress in implementation of the SDG7 initiatives is majorly affected by COVID-19 pandemic and also by the steady rise in energy prices since summer 2021 which affected the prices of all commodities.

The Amity University Haryana has been awarded as India's first University and Asia's 2nd to earn LEED Platinum Certificate from US Green Building Council. The University is relentlessly contributing to transform the campus into a clean and green campus thereby contributing to the SDG 7 through following measures:

- Research, educational programs and collaborations focused on clean energy practices
- Green campus initiatives, measuring energy wastes & mitigation plan, energy efficient technology adoption
- Supporting Government of India in Renewable Energy policy implementation
- Integrating energy efficiency measures into University's policy framework
- Promoting energy conservation and energy efficiency through various outreach programs to local and regional community.



LED Lighting in Library



Glass façade for Daylight utilization



Agrivoltaic at AUH



Connectors between buildings to reduce energy consumption



Herbal Garden at AUH supported by AYUSH

TEACHING AND LEARNING

Education is the key that will allow attainment of Sustainable Development Goals (SDGs). When people are aware of the technology they can break free from the inefficient energy sources and adapt the clean energy sources for their energy needs.

To educate the young adults for adaptation of renewable and sustainable energy practices within and outside the AUH campus, AUH offers UG and PG courses in the field of renewable and sustainable energy viz. M Tech Solar and Alternate Energy, M Sc Renewable Energy, Bachelor of Architecture, Bachelor of Planning, Master of Planning.

Energy Auditing & Risk assessment of RE projects are also dealt in this program and students perform energy auditing of buildings and industry. An elective course- Renewable Energy Track is offered to all UG students across all programs to create awareness about the technology. Amity University has joined hand with GBCI to train and educate students to cater the upcoming industry need of green building by initiating an educational module; LEED Lab. LEED Lab is a unique academic initiative which integrates a policy framework to classroom activity to get desired outcome in arena of sustainable built environment.

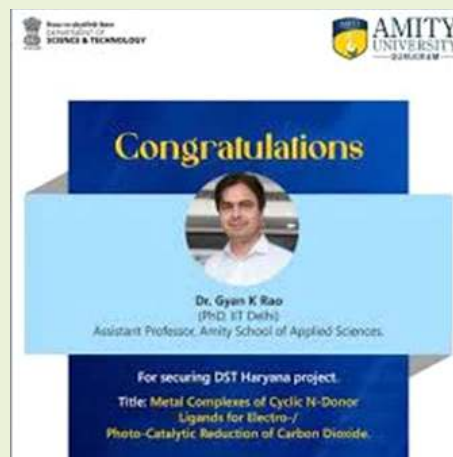
Sno	Programes	School/Institute
1	M.Tech (Solar & Alternate Energy)	Amity School of Applied Sciences
2	M.Sc. (Renewable Energy)	
3	B.Sc. (Hons) - Earth Sciences	Amity School of Earth and Environmental sciences
4	M.Sc. - Environmental Sciences & Management	
5	Bachelor of Architecture #	Amity School of Architecture and Planning
6	Bachelor of Planning	
7	Master of Planning (Urban and Regional)	
8	B.Tech (Civil Engineering)	Amity School of Engineering and Technology
9	M.Tech (Civil Engineering)	

The students after completion of their PG programs are presently serving in the renewable energy sector in various job roles and contributing to the National Solar Mission of the country. The alumni are working in the Ministry of New and Renewable Energy as Young Professional, Solar Industry as Solar Designer, Solar PV Installation Engineers, or as Business Development Executives and also started their own entrepreneurial venture. Some of them are into active research and has taken up jobs as faculty members in the University.

CLEAN ENERGY RESEARCH

The faculty members and students are involved in clean energy research which are funded by different Government & Non- Government Agencies viz. Sustainable use of unconventional fibers of Indian Himalayas for Agro Textiles (funded by Ministry of Textiles), Development of Novel metamaterials using nanoferrite composites for microwave absorber application (funded by SERB), Metal Complexes of cyclic N-donor ligands for electro-/Photo-catalytic reduction of Carbon dioxide (funded by DST- Haryana), Green-synthesized nanoparticles dispersed liquid crystals for display applications (funded by SERB-SURE), Development of High-resolution future climate scenarios for the NCR region under climate change and urbanization (funded by SERB-SURE) and Development of Nanomaterials for High Density Application (funded by Global Affairs Office. Yuan Ze University) amounting to Rs. 20203948.

Air quality is monitored for all major air pollutants under SAFAR program at AUH jointly with IITM, Pune. It provides awareness about air quality among stakeholders of University. Apart from SAFAR, several other air quality parameters are also monitored jointly with NASA, USA.



Parameters

Particulate Matter (PM)

- (i) PM₁ (Super-fine)
- (ii) PM_{2.5} (Fine)
- (iii) PM₁₀ (Coarse)
- (iv) SO₂
- (v) O₃
- (vi) NO_x
- (vii) NO
- (viii) NO₂
- (ix) NH₃

Volatile Organic Compounds (VOCs)

- (x) Benzene
- (xi) Ethyl Benzene
- (xii) Toluene
- (xiii) Xylene
- (xiv) m&p Xylene
- (xv) CO
- (xvi) CO₂

Surface Meteorology

- (xvii) Wind Speed
- (xviii) Wind Direction
- (xix) Temperature
- (xx) Humidity
- (xxi) Pressure and
- (xxii) Rainfall

Front-view with data display of the AQMS and rack-mounted PM, Gas Analyzers and

UNIVERSITY OPERATIONS: INFRASTRUCTURE, GOVERNANCE AND MANDATES

Energy transition and divesting investment from energy intensive systems to clean energy systems is a major step taken by Amity University Haryana to drive low carbon scenario in all its operations including academic delivery, administration, and maintenance. To ensure low carbon transformation, University is mandated through Sustainable Energy Policy and Building Commissioning Policy to ensure carbon neutrality in phase wise manner.

A 500 kWp rooftop solar PV system ensures mitigating 14145-ton CO₂ emissions and is equivalent to planting 22632 Teak trees over the lifetime. The Solar Plant Operates with Zero breakdown and generate Solar energy round the year. The University has a dedicated 33 KV independent feeder which is very stable have negligible breakdowns reducing utilization of DG sets ensuring control on carbon emission. Regular Emission analysis & Monitoring of DG sets is carried out to ensure low pollution. A plan has been taken to replace 240 Conventional Halogen Lamps of 400 Watt with 200 Watt LED Flood Lights having same illumination.



Rooftop Solar PV Plant at AUH



Biogas Plant at AUH

The replacement will be done in four phases (60 no each phase). After the first phase on replacement & installation of 50 LED flood lights, a savings of Rs. 195750/- has been estimated. A biogas plant is housed in the AUH farm which provides the energy requirement of the dairy.

University encourages uses of public transport for daily commuting of day scholars, faculty and staff. A large number of buses are maintained, which ensure less carbon footprint for remotely located campus like AUH. All vehicles entering University have "Pollution Under Control" certificate. Campus strictly follows "No Smoking Zone" principle.



Transport Facility at AUH

ENERGY EFFICIENT BUILDINGS

Amity University Haryana (AUH) is situated in the picturesque 110-acre Amity Education Valley, in the close proximity of Gurgaon, one of India's biggest corporate hubs. Based upon innovation in design, location & transport, water efficiency, energy & atmosphere, sustainable site, indoor environmental quality and material & resources, Amity University Haryana building is accredited with LEED Platinum (highest rating for green building); 1st university building in India and 2nd only in Asia in operation and maintenance category.

University building contains series of sunken courts which reduce heat regime in summer and winter together which helps in minimising air conditioning energy consumption. All the buildings have multiple windows and glass facades to increase the daylight utilization and the roofs are painted with reflective paint to reduce the heat absorption by the building thereby reducing the heat load of the buildings. The building architecture, ramps, connectors between the buildings help in reducing the usage of lifts and electrical lightings.



AUH- Green Campus





EVENTS AND SOCIAL OUTREACH

Plantation drive is an integral part of AUH system. Over 100 of different variety of native plants are grown on campus. AUH houses a herbal garden supported by Ministry of AYUSH which grows different types of medicinal plants and also conduct programs to educate the college and school children regarding the benefits of these plants <https://www.facebook.com/AmityUniversityGurgaon/videos/inauguration-of-ayush-amity-herbal-garden-and-launch-of-amity-institute-of-india/1538073999648496/>.



Plantation Drive at Amity University Haryana

COLLABORATIONS FOR POLICY SUPPORT & COMMUNITY OUTREACH

Amity University Haryana has been awarded as a Partnering Institution for Unnat Bharat Abhiyan, a flagship program under the Ministry of Education. Under the UBA initiative, the faculty members, students and staffs had conducted serve in 5 selected villages and had also done a household survey using structured questionnaire provided by IIT Delhi in these villages accounting to 30% of the household in each of the villages. Meeting with village Heads (Sarpanch) has been conducted to establish relationship of mutual respect and conduct developmental work.



Interaction with Sarpanch at Fakharpur Village under Unnat Bharat Abhiyan





AUH is aware of its responsibilities to encourage people to adapt clean energy sources for sustainable development to minimize adverse environmental impact. Amity conducts local outreach program by its UG and PG students through Social Awareness Program to create awareness about the clean energy technologies and burning social & health issues which is a part of their course curriculum.



Solar Training for Women at Faizhawas Village Anganwadi by Students of ASET under Unnat Bharat Abhiyan

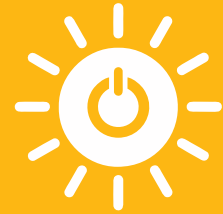
At AUH, an agrivoltaic plant has been developed partly under a 185kWp ground mounted solar PV power plant. Farmers from the villages were involved in developing the plant along with faculty members and students thereby sharing the knowledge to the stakeholders.

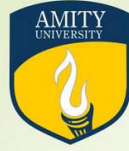


Agrivoltaic Plant Developed by faculty members in collaboration with local farmers at AUH

The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations.

7 AFFORDABLE AND CLEAN ENERGY





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REPORT ON SUSTAINABLE DEVELOPMENT GOAL

8 DECENT WORK AND
ECONOMIC GROWTH



YEAR 2021-22



PREAMBLE

Amity University Haryana is committed to the United Nations Sustainability Development Goal SDG 08. The University is aware of its responsibility towards decent workplace environment and its role in enhancing economic growth at the local, regional, and national dimensions. Since its inception university ensures the equality at workplace for women and men in all aspects. For this purpose amicable policies are formulated, and initiatives are taken to ensure hassle-free implementation of the policies. In conformity to SDG 08 and its primary intent towards decent workplace environment and culture that in turn is expected to increase productivity and

economic growth, AUH believes in technological upgradation, capacity building, and best practices in innovation while promoting entrepreneurship and helping students to start working on their own creative ideas independently. Additionally, university faculty members are providing good results and making recommendations from time to time for enhancing economic growth and decent work environment in their respective departments through their research work and deliberations. This is reflected in several achievements, policy measures, and initiatives some of which are summarized in this document.

TEACHING & LEARNINGS

Amity is providing courses related to Economics, Management and Commerce, Entrepreneurship to fulfill requirement of SDG 8.

Programme Name	URL of the Programmes
Under Graduate Level	
BBA	https://www.amity.edu/gurugram/bba
BBA (B&F)	https://www.amity.edu/gurugram/bba-banking-and-finance
B.Com. (Hons)	https://www.amity.edu/gurugram/bcom-hons
B.A. (Hons) Economics	https://www.amity.edu/gurugram/ba-hons-economics
Post Graduate Level	
MBA	https://www.amity.edu/gurugram/mba
MBA (B&F)	https://www.amity.edu/gurugram/mba-banking-and-finance
MBA (Business Analytics)	https://www.amity.edu/gurugram/mba-business-analytics
MBA (Sustainability Mgmt.)	https://www.amity.edu/gurugram/mba-sustainability-management

Programme Name	URL of the Programmes
Post Graduate Level	
Master of Commerce	https://www.amity.edu/gurugram/master-of-commerce
MA (Economics)	https://www.amity.edu/gurugram/ma-economics
PhD Programmes	
PhD Management	https://www.amity.edu/gurugram/phd-management
PhD in Economics	https://www.amity.edu/gurugram/phd-economics
PhD Commerce	https://www.amity.edu/gurugram/phd-commerce

Minor Entrepreneurship Elective Track offer to all Under-Graduate Programs

Track with details of courses	No. of credits to be earned for getting a minor degree	Prerequisites if any
Entrepreneurship Semester 1-MGT2152- Orientation Programme in Entrepreneurship		
Semester 2-MGT2252- Exploring Business Opportunity		
Semester 3-MGT2352- Developing a Business Model	18	No prerequisites
Semester 4-MGT2452- Translating Business Model into Startup		
Semester 5-MGT2552- Advanced Programme in Entrepreneurship: Growth		
Semester 6-MGT2652- Advanced Programme in Entrepreneurship: Expansion		

The objective of Amity University Haryana is to encourage sustained economic growth by promoting entrepreneurship, innovation, hand-holding start-ups – all of which will ultimately result in job creation. To create employability, AUH work closely with local community and support micro and small business startups as part of promoting MSMEs. Amity has always taken part in economic growth through

collaborations at the National, International or Local levels and supported the endeavor in best possible ways. Amity always believes in humanity and social wellbeing as major components for economic growth. For this purpose, students social-clubs and faculty collaborate and work with local entrepreneurs to promote community development.

ENTREPRENEURSHIP AND STARTUP SUPPORT

Amity Innovation Incubator is providing the following support services to students and other entrepreneurs from outside and helping them in establishing their startups thus contributing in generating employment and growth and development of economy.

- Mentoring and Advisory
- Financial Advisory and Support
- Infrastructure and Support

In year 2021, incubator has provided financial assistance of INR 19, 80, 000 to students for developing product prototype and produced four spinoffs from university.

Entrepreneurship Cell (E-Cell)

Further, E-Cell operating is actively involved in creating an ecosystem of entrepreneurship and start-ups in the campus by involving students in various entrepreneurial events & activities, providing various opportunities to students to interact with entrepreneurs and helping them in developing business ideas and providing start-up support to the

students through Amity Incubation Centre.

- Entrepreneurship Awareness Camps
- Fortnightly lecture series – ‘Real Entrepreneurs, Real Story’
- Idea and design thinking workshops
- B. Plan competitions
- Hackathons
- Entrepreneurship Boot camps
- Brainstorming sessions

Institute Innovation Council under Ministry of Human Resource Development, Government of India

Amity University Haryana Institution Innovation Council is primarily responsible for fostering entrepreneurial skills amongst students and assisting budding entrepreneurs by providing them with necessary resources. Our vision is to develop, support and deliver the Entrepreneurship spirit among students in their quest to achieve success in establishing their venture at all junctures.

Our mission is to explore the opportunities for self-employment and inculcate the spirit of 'Entrepreneurship' in young Amityans and nearby societies to foster the brightest ideas to one platform and convert them into business.

Rural Innovation and social Entrepreneurship (RISE)

Amity rural innovation incubator will incubate rural innovation-based ventures virtually through its execution partner and Amity Venture fund will invest Seed Capital in those ventures to take it to the next level. Execution partner will scout & select potential innovations and provide on ground incubation support to the ventures for running it successfully.

The 'Rural Innovation Incubator' (RII) at AUH is aimed at providing low cost need based technological solutions for rural areas which are technically feasible, economically viable, socially acceptable, environment friendly, consistent with household endowment and relevant to the needs of rural people. Under RII, students have done a survey of nearby villages and worked out on providing alternative solutions to the power and energy needs of these villagers.

As a result, the incubator has 'beta-tested' Solar technology in Langra village. The Solar Street Lights and Solar Batteries have been installed and their results were monitored. The feedback has been taken from the local villagers which was very positive and enthusiastic.



University Spin offs

Amity Innovation Incubator & ECell worked towards motivating students' ideas and help them to convert into ventures. More than 23 ideas converted into ventures in recent years and few of them graduated are listed below:

- **Plabs Solutions Private Ltd.** is an enterprise based upon an innovative idea with Intellectual property right, received funding from Meity for support its Pre-Doctor diagnosis platform. PreDoc is India's First AI based Audio Visual Platform used for Diagnostics of Symptoms of a Patient.
- **Legal Bites:** Mr Mayank Shekhar alumni student of Amity Law School, his venture Legal Bites is an Ed-tech platform. The website offers opportunities in the form of competitions, events and jobs relevant to the legal fraternity. It has constantly been working to create affordable, high-quality particulars on cases, codes, articles and interviews while catering a cosmopolitan responsibility
- **Elnio Fitment Pvt. Ltd.:** Mr. Ayush Awasthi, engineering graduate had a dream to start something of his own and started venture during final year of engineering. It specializes in casual and official wear for males and females.
- **Samzan Pvt. Ltd.:** BBA Graduates from Amity Business School Mr. Faizan & Ms. Samiya started this venture during their graduation at Amity. SAMZAN PVT LTD is a renowned and trustworthy manufacturer and supplier of cookware products, household products & food products.



The following is a list of start-ups:

Name of the start up	Thrust Area	Nature of start-up
SAMZAN	Kitchenware Manufacturers	Manufacturer of kitchen appliances
Pustakkosh	Books	Text book rental company
Hash tag Food Truck	Food Truck	Food & Beverages
Legal bites	Law website	Legal courses portal
Aeronot Fragrances Pvt Ltd	Perfume company	FMCG
2 Tree Coffee Café	Food & Beverages	Food services
Bullskart	E-Commerce	
Elino Fitment Pvt Ltd	E-Commerce	Luxury Night wear clothing
Ezylegal	Legal Site	Online Legal advisory/consultation
P Labs Solutions Pvt Ltd	Health care	Online health related consultation
Last Mile Care	Health care	Online health related consultation
Cancerrx	Health Care	Online health related consultation
TCV Coffee Vault Beverages Pvt. Ltd. (The Coffee Vault)	Food & Beverages	Food and beverages chain
Radheyam 13 Robotics	Robotics	Robotics and AI based startup
Edudap India Pvt Ltd	Edtech	
Eresha Technology Innovators Private Limited		
Oralens Healthcare Pvt Ltd	Healthcare	Online health related consultation
Kulyantran Global Private Ltd	Robotics	Robotics and AI based startup
NanolatticeX	Healthcare	Online health related consultation
AIGROEDGE Technologies Private Limited		
AMN Tech LLP (CancerX)	Healthcare	Online health related consultation
Mimblu	Healthcare	Online health related consultation
DAL Waste Solution Pvt.Ltd	Waste	

EMPLOYABILITY

Corporate Resource Centre (CRC) is dedicated office at the University providing internship and final placement assistance to students. CRC ensures 100 per cent placement for all interested students of the



University. For all students, be it graduate or undergraduate ones, there is a Mentor-Mentee System to guide or counselling students pertaining professional and personal issues. More details related to employability/placements are available on the University website, as below:

<https://www.amity.edu/gurugram/about-placement>

<https://www.amity.edu/gurugram/pdf/haryana-placement-brochure2021.pdf>

More than 95% students placed in 2021-2022.

Major employers where Amity students have got their internship and placement are exhibited below:



RESEARCH & PUBLICATIONS

During the last year, over 54 research and consultancy projects received grants worth Rs. 21.7 Cr from Govt & Non Govt agencies, major science & technology organization such as: - DST, UGC, RFBR, SERB, ICMR, FIST, MNRE, DBT, etc. apart from industry collaborators including foreign ones. The

University has filed 175 patents. 15 authored books, more than 200 book-chapters and 4900 research paper were published by faculty and students in reputed national and international journals. The Patent Facilitation Centre provide needed support to faculty in patent filing process.

WORKPLACE ENVIRONMENT

- AUH provides sufficient remuneration to all employees for decent work and economic growth, in accordance to SDG08.
- AUH does not practice any discrimination on caste, creed, religion, gender, etc. There are employees of all religions who work at AUH. There is a policy to address the issue of "Harassment of Female Employees" in Human Resources Policy Manual.
- Policy on "Women representation" is at place, the purpose of this policy is to provide a vibrant and inclusive intellectual community, including a safe and supportive working and learning environment for people of all genders. The University is committed to promote gender equity, non-discrimination, and strengthening women empowerment and equality in pay. The University is cognizant of the national policy for women empowerment.
- There is an open-door policy for Faculty/Staff members to approach Senior Management, to address grievances. AUH has a structured Grievance Redressal mechanism, which is followed very religiously.

ANTI DISCRIMINATION POLICIES

- Regulations of Prevention of Sexual Harassment
- Policy on Women Applications and Entry
- Policy on Non-Discrimination Against Women
- Non-Discrimination Policy of Transgenders
- Policy to Protect those Reporting Discrimination

HAPPENINGS & EVENTS

During the year, AUH has organised more than 50 events and activities to inspire and support young entrepreneurs. This translates to about an event a week and include FDP/PDP, seminars/webinars, expert talks/guest lectures, training

programs etc. A list of the events along with the relevant details is presented below. As may be seen several eminent resource persons from the industry and academia interacted with the students, faculty and staff.

Date - From	Date - To	No. of Days	Title of event	Type of Event	Resource Person
12-Jul-21	16-Jul-21	5 Days	Recent Advances, Trends and Challenges in field of Nanotechnology	FDP	<p>Prof Agnishwar Girigoswami Professor CARE, Chennai, India</p> <p>Dr. Sunil K Kushvaha Principal Scientist NPL, India</p> <p>Prof SVS Rana Professor Nanotoxicology present and future perspective CCSU, Meerut</p> <p>Dr Vinod Singh Associate Professor DTU, New Delhi</p> <p>Dr. Ratheesh Revendran Director-CMET, Hyderabad</p> <p>Dr Sanjay Kashyap Assistant Professor Thapar University, Punjab</p> <p>Dr M S Mehta Assistant Professor DTU</p> <p>Dr R S Dhaka Associate Professor IIT – D, New Delhi</p> <p>Dr. Manika Khanuja Assistant Professor JMI, Delhi, India</p> <p>Dr. Paresh Patel Assistant Professor Uka Tarsadia University, Gujarat, India</p> <p>Dr. Dhruv Pratap Singh Assistant Professor IIT Bhilai</p> <p>Dr. Ravi Kumar Professor, NIT, Hamirpur</p>

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					<p>Prof. P.B. Sharma Vice Chancellor Amity University Haryana</p> <p>Dr. Khusboo Aggarwal Sr. Research Associate Lanchester University, UK</p> <p>Prof. R.P. Tandon Professor Delhi University</p>

Date - From	Date - To	No. of Days	Title of event	Type of Event	Resource Person
					<p>Dr. Raghunath Bhattacharya Visiting Professor IEST, Kolkata</p>
19-Jul-21	23-Jul-21	5 Days	Entrepreneurship The new age skills for sustainable future and social development	Professional Development Program	<p>Dr. Roopak Vasishtha CEO & Director General Employability, Skills and Entrepreneurship Apparel Made-Ups & Home Furnishing Sector Skill Council, Govt of India</p> <p>Dr. P. R. Dutta Executive Chair-Centre for Business & Economic Research, Editor-in-Chief, Journal of Business and Retail Management Research, Senior Lecturer Northampton University at Regent College</p> <p>Aakash Gupta Leader, Client Capabilities Hub Mckinsey</p> <p>Mr. Addison Appu VP-Investments ThinKuvate</p> <p>Mr. Alok Sinha CEO Globus Eight New York, United States</p> <p>Dr. Anuja Pandey Professor-Marketing, Head, India Case Research Centre Case Research Centre – AIMA-ICRC Program Director – PGCM Programs-</p> <p>Dr. Shweta Singh CEO Ennoble Asha Kapoor Managing Director Fam health (P) Ltd</p> <p>Dr. Vinod Kumar Murti Country Head, Institute of Analytics, London India Institute of Analytics</p> <p>Indranil Bose Dean, School of Business University of Bolton, RAK, UAE</p>

Date - From	Date - To	No. of Days	Title of event	Type of Event	Resource Person
					<p>Mr. Sameer Kaul Former CEO, COO and CMO @ Top Market Leader Brands. India's Top 50 CMOs list Top Market Leader Brands.</p> <p>Dr. Madhusudan Bhat Director (Research & Development) iHeal Innovations LLP</p> <p>Prof. M. K. Shome Professor Department of Management and Humanities, National Institute of Technology Arunanchal Pradesh, Ministry of Education. Govt of India</p> <p>Prof. Amar Kr. Sundram Professor –Commercial Legal Practice, Jindal Global Law School O.P. Jindal Global University, Sonapat, Haryana</p>
24-Aug-21	24-Aug-21	1 Day	Application of Micro and Nanotechnologies	Seminar	<p>Dr V K Jain Distinguished Scientist & Professor Nanotechnology, MEMS Amity University, Noida</p>
20-Sep-21	24-Sep-21	5 Days	Nanotechnology and Materials Science	Webinar	<p>Dr. Amit Seth Associate Professor Nanotechnology and Biotechnology Manipur University</p> <p>Mr. Anshuman Assistant Manager Class One Systems Pvt. Ltd.</p> <p>Mr. Hitesh Mamagain Director WITec GmbH Germany Instruments</p> <p>Mr. Shubham Associate Professor Hioki Pvt. Ltd.</p>

Date - From	Date - To	No. of Days	Title of event	Type of Event	Resource Person
21-Sep-21	21-Sep-21	1 Day	Innovation and IPRs	Webinar	DR. Rahul Taneja Scientist HSDST
7-Oct-21	7-Oct-21	1 Day	Catalytic reaction for a sustainable future	Seminar	Prof. Anirban Das Associate professor, CBFS, ASAS, AUH
2-Dec-21	2-Dec-21	1 Day	Innovation Strategy for Universities to Create Opportunities of Entrepreneurship in Mitigating Environmental Issues	Webinar	Dr. B K Sahu Regional Manager & Head Intellectual Property and Innovation NRDC
28-Jan-22	28-Jan-22	1 Day	Adventure Tourism & Entrepreneurship	Webinar	Mr. Rakesh Jain Adventure Tourism & Entrepreneurship Outdoor India
8-Feb-22	8-Feb-22	1 Day	Hospitality Entrepreneurship & Startup Innovations	Webinar	Chef Atul Malik Managing Director/Owner Hospitality Wall Street/Papa Whiskey/Penthouse/Karim's/ LeAntares
24-Feb-22	24-Feb-22	1 Day	Design Thinking, Critical Thinking and Innovation Design	Webinar	Ms. Ekta Jafri Design Director Expertise in Product Design, Critical Thinking and Innovation Strategy. IBM iX
24-Feb-22	24-Feb-22	1 Day	Building Quantitative tools to assess Country Risk for International Investor	Webinar	Mr. Vivien Massot Managing Director Expertise in International Economics TAC Economics India
18-May-22	18-May-22	1 Day	Stock Market Operations", by Mr. Chiranjeev Khanna, Founder, Stock Daddy.	Seminar	Mr. Chiranjeev Khanna Head Program & Design, Stock Daddy

Date - From	Date - To	No. of Days	Title of event	Type of Event	Resource Person
4-Sep-21	4-Sep-21	1 Day	Campus to Corporate- Transform yourself & Be the Gamechanger	Expert Talk	<p>Mr. Anil Bhasin President (Superannuated) Havells</p> <p>Mr. Ashutosh Chadha Director & Country Head- Govt Policy Advocacy Microsoft</p> <p>Mr. Sharad Gupta Director Corporate Communication and Brand strategy, Vice President and Head -InnovationEscorts Ltd</p> <p>Mr. Samir Kapoor Director Ad, Factors Ltd</p>
19-Sep-21	25-Sep-21	7 Days	Amity Stem Cell Institute and Kiran Mazumdar-Shaw Centre for Affordable Innovation (KMSCAI) Lecture Series- 2021	Expert Talk	<p>Dr. Arvind Chhabra Professor & Director Stem Cell and Molecular Medicine Amity Stem Cell Institute</p> <p>Dr Manoj Kashyap Associate Professor Amity Stem Cell Institute</p> <p>Dr Vimal Kishor Singh Associate Professor Amity School of Engineering and Technology</p> <p>Dr Suresh K Kalangi Asth. Professor Amity Stem Cell Institute</p> <p>Dr Soumen Chakraborty Scientist - F Institute of Life Sciences (ILS), Bhubaneswar</p>
21-Sep-21	21-Sep-21	1 Day	Overview of Market Research and Career Prospects in the Industry	Guest Lecture	<p>Mr. Sandeep Singh Associate Consultant, Global Primary Intelligence IQVIA</p>
21-Sep-21	21-Sep-21	1 Day	Solar operated direct energy conversion systems for power generation options	Guest Lecture	<p>Dr Ravita Lamba Asst.Prof. Solar Photovoltaics & Thermoelectric Systems MNIT, Jaipur, Rajasthan</p>

Date - From	Date - To	No. of Days	Title of event	Type of Event	Resource Person
22-Sep-21	22-Sep-21	1 Day	Role & Relevance of IPR in pharmaceutical Industry	Guest Lecture	Mr. Ravikant Ravi Senior Research Associate, Evalueserve, Gurugram
23-Sep-21	23-Sep-21	1 Day	Changing domains and career opportunities	Guest Lecture	Mr. Santosh Jha Peer Reviewer, Pharmacovigilance Wipro India Pvt. Ltd.
24-Sep-21	24-Sep-21	1 Day	Nanotechnology: A prospective towards cleaner environment	Guest Lecture	Prof. Ajay Kumar Mishra Nanoscience/Nanotechnology; Materials Science; Polymers; Composite/Nanocomposites; Photocatalysts and Water Research College of Science, Engineering and Technology, University of South Africa
11-Oct-21	11-Oct-21	1 Day	Overview of Diagnostic Industry in our country	Guest Lecture	Mr. Shibu Shrestha Head HR & Corporate Affairs Pathkind Diagnostics Pvt Ltd
15-Nov-21	15-Nov-21	1 Day	E-Commerce Functionality and Technology	Expert Talk	Mr. Sunil Gujral Founder & Director FutureSoft India Pvt Ltd)
28-Feb-22	28-Feb-22	1 Day	Hospitality Industry- Trends and Opportunities	Guest Lecture	Vikramjit Singh President Expertise in Hospitality Sector -Strategy and Higher management Lemon Tree Group of Hotels
22-Apr-22	22-Apr-22	1 Day	Intellectual Property Rights	Expert Talk	Harish Sharma IPR Specialist, AUH
23-Apr-22	23-Apr-22	1 Day	Nurse Entrepreneur: Breaking the Role stereotypes	Expert Talk	Dr. Ramu K Dean (Medical Surgical Nursing) RGUHS, Karnataka

Date - From	Date - To	No. of Days	Title of event	Type of Event	Resource Person
14-May-22	14-May-22	1 Day	Patents, Copyrights in Nursing and its Filing Process	Expert Talk	Dr. Dipti Shukla, Principal Samarpan Institute of Nursing and Paramedical Sciences Prof. Abhra Pratip Ray Professor Prathiba College of Commerce and Computer Studies
19-May-22	19-May-22	1 Day	IPRs and IP management for Startup	Expert Talk	Prof. Kamal Dev IPR Specialist Shoolini University
26-May-22	26-May-22	1 Day	Legal Compliances for Startup	Expert Talk	Mr Asif Iqbal Head Product and Strategy Funding, Startup, Legal Advice Lawered
20-Sep-21	20-Sep-21	1 Day	Innovation Day Film Screening	Workshop	Dr. Sam V. Rao, Associate Professor, ASCO, AUH
20-Sep-21	20-Sep-21	1 Day	Trash to Treasure	Workshop	Ms. Aditi Sharma Teaching Associate Fashion Illustration & Model Drawing, Computer Aided Design & Computer Aided Manufacturing, AID, AUH
24-Sep-21	24-Sep-21	1 Day	Furniture Design	Workshop	Ar. Rahul Mehta (Coordinator, BID) ASAP, AUH
29-Sep-21	29-Sep-21	1 Day	Smart Materials	Workshop	Prof. Cheng-Hsin Chuang Director Biosensors and their applications NSYSU, Taiwan Prof. S.K. Sharma Professor Nanomaterials- Synthesis and Characterization JNU, New Delhi Dr. Neelam Kumari Scientist Optical properties of smart materials CSIO, Chandigarh

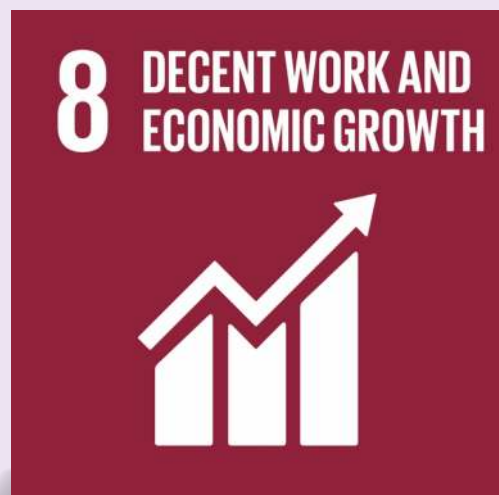
Date - From	Date - To	No. of Days	Title of event	Type of Event	Resource Person
13-Apr-22	13-Apr-22	1 Day	Workshop on Innovative Illustrations	Workshop	Ms. Aditi Sharma Teaching Associate Fashion Art Illustrations & Model drawing, Computer aided design & Computer aided manufacturing. Amity University, Haryana
22-Apr-22	22-Apr-22	1 Day	Sustainable Building Practices	Workshop	NA
6-May-22	6-May-22	1 Day	National Contest on "Science & Art of Soap Making-A Concept Note	Workshop	Prof. A. Bhattacharya Deputy Director Hospitality AIH, AUH Prof. Satish Sardana Director Pharmacy AIP, AUH Dr. Tanushri Purohit HOD Skills and Marketing ASI, AUH Dr. Subra Das HOD, Solar Engineering ASET, AUH Mr. Piyush Gupta CEO Extraction of Essential Oils Kanha Nature Oils
11-May-22	19-May-22	9 Days	Textile Testing Technology	Workshop	Ms. Kavita Assistant Professor Textile Science Aid, AUH
13-May-22	20-May-22	8 Days	Surface Ornamentation- Innovative techniques of Tie & Dye	Workshop	Ms. Raka Sharma Textile Designer Tamanna
25-May-22	25-May-22	1 Day	E-Waste & Circularity	Workshop	Mrs. Panni Verma Project Manager Organizational Development, Project Initiation and Implementation, Training Program Design, Communication & People Orientation, etc. SAAHAS Ms. Deepika Chhetri Project Coordinator natural resources SAAHAS

Date - From	Date - To	No. of Days	Title of event	Type of Event	Resource Person
					Mr. Shivam Rawat Project Coordinator zero-waste sustainable solutions SAAHAS
20-Sep-21	20-Sep-21	1 Day	E-Business case study presentation	Student Activity	Dr. Ravi Ranjan Assistant Professor ACC Mr. Shiv Swaroop Jha Assistant Professor ACC, AUH
22-Sep-21	22-Sep-21	1 Day	ASCO's Got Talent	Student Activity	Dr. Pooja Rana Professor Journalism and Mass Communication ASCO, AUH Dr. Preeti Singh Assistant Professor Journalism and Mass Communication ASCO, AUH
23-Sep-21	23-Sep-21	1 Day	Innovation Per Second	Student Activity	Dr. Sam Vinay Rao Associate Professor Mass Communication ASCO, AUH Dr. Preeti Singh Assistant Professor Mass Communication ASCO, AUH
24-Sep-21	24-Sep-21	1 Day	Start-up "Born from the Seed"	Student Activity	Dr. Nilmani Tripathi Assistant Professor ACC Mr. Shiv Swaroop Jha Assistant Professor ACC, AUH
16-Mar-22	16-Mar-22	1 Day	Innovative Ideas in Nursing Science	Student Activity	Mr Surenda Sharma Associate Professor Child Health Nursing ACON
28-Apr-22	28-Apr-22	1 Day	Business Quiz	Student Activity	
18-May-22	18-May-22	1 Day	BUZZ WIZZ	Student Activity	
19-May-22	19-May-22	1 Day	Innovative Contemporary Blouses	Student Activity	NA

Date - From	Date - To	No. of Days	Title of event	Type of Event	Resource Person
10-Jan-22	14-Jan-22	5 Days	Building Urban Resilience Through Advanced Technology	Training Program	<p>Dr Piyoosh Rautela Executive Director Uttarakhand State Disaster Management Authority</p> <p>Dr Sudhakar Shukla Head, School of Geo-informatics & Scientist Remote Sensing Applications Centre, U.P., Lucknow</p> <p>Dr. Sweta Baidya Consultant, NIDM</p> <p>Dr. Kopal Verma Junior Consultant Geography, Urban and Regional Planning NIDM</p> <p>Dr. P P Nageswara Rao Outstanding scientist ISRO (Rtd)</p>
1-Feb-22	31-Mar-22	30 Days	Training in Lean Six Sigma Foundation.	Training Program	<p>Prof. (Dr.) Padmakali Banerjee ProVice Chancellor, Dean Academics Amity University Haryana</p> <p>Mr. Shivendra Sharma Instructor (Lean Six Sigma Master Black Belt)Six Sigma Foundation</p>
24-Feb-22	24-Feb-22	1 Day	STUTI (Synergistic Training program Utilizing the Scientific and Technological Infrastructure) An initiative of Department of Science & Technology	Training Program	<p>Prof. (Dr) P.B. Sharma ViceChancellor AUH</p> <p>Prof. Dr. Vikas Madhukar Dy ProVice Chancellor, AUH</p> <p>Maj Gen Gurpal Singh Bal (Retd.)Dean Students Welfare , AUH</p> <p>Prof. (Dr) A.K. Yadav Director, Amity School of Applied Science,AUH</p>
25-Feb-22	25-Feb-22	1 Day	Lean Six Sigma Certification	Training Program	<p>Mr. Shivendra Sharma Instructor (Lean Six Sigma Master Black Belt)Six Sigma Foundation</p>

Date - From	Date - To	No. of Days	Title of event	Type of Event	Resource Person
8-Apr-22	8-Apr-22	1 Day	Industrial Visit to Mindarika Limited	Industrial Visit	NA
20-May-22	20-May-22	1 Day	Industry Experience Visit to Centre of Excellence, Apparel Made- UPS Home Furnishing Sector Skill Council, New Delhi	Industrial Visit	Mr. Vipul Wahal Centre Head office AMHSSC
20-Sep-21	24-Sep-21	5 Days	New Challenges and Opportunities in Aerosol Pollution Research: An Indian Perspective	Orientation Programme	<ul style="list-style-type: none"> • Dr. V.K. Soni, Head, EMRC, IMD • Prof. U.C. Kulshrestha, Dean, School of Environmental Sciences, JNU • Dr. Atul Kumar Srivastava, Principal Scientist, IITM-Delhi Branch • Prof. Sagnik Dey, Chair & Associate Professor, IIT-D
					<ul style="list-style-type: none"> • Dr. Sachin Ghude • Dr. Gaurav Givardhan, Senior Scientists, IITM, Pune
8-Apr-22	11-Apr-22	4 Days	Internal Smart India Hackathon-2022	Hackathon	NA
11-May-22	11-May-22	1 Day	Integrated Approach in Science and Technology for Sustainable Future	Celebration Day	Dr. S.K Varshney Scientist G, Head, International Co-operation DST Dr. Nirmaljeet Singh Kalsi, IAS (Retd.), Chairperson, NCVT Dr. N K Mathur Member Central Water Commission (Dr.) Arun Deep Ahluwalia Ex HOD, Department of Geology

The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations





AMITY
UNIVERSITY
HARYANA

NAAC 'A'
GRADE
ACCREDITED UNIVERSITY

REPORT ON SUSTAINABLE DEVELOPMENT GOAL



YEAR 2021-22



PREAMBLE

Amity University Haryana, a research and innovation driven University, is truly committed to the cause of 'innovation and entrepreneurship'. The 'Vision' of Amity University Haryana (AUH) is "to be a world class Centre of creativity and innovation and to contribute to the progress of humanity through excellence in education, industry and society relevant research and extension services."

TEACHING AND LEARNING

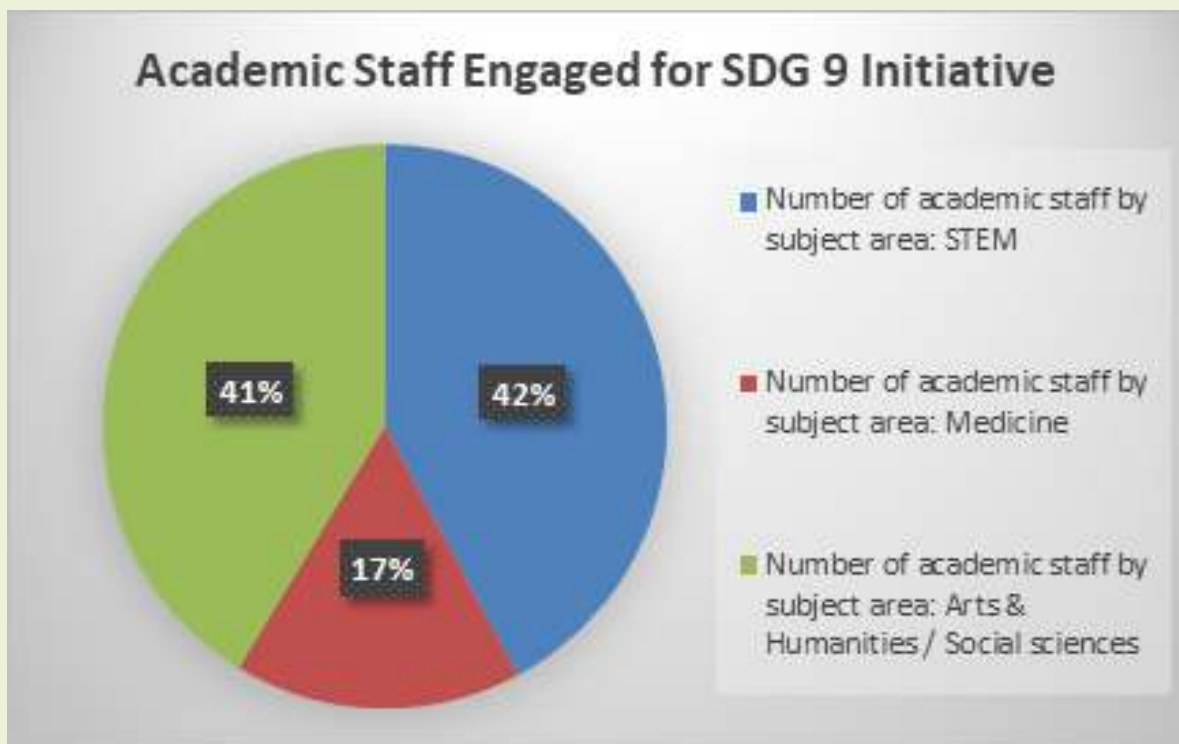
There are 64 programs offered at AUH at UG and PG level which are designed to impart knowledge to the students related to sustainable building designs, energy efficient techniques which can be adopted by industry and household to meet their energy demands. Table below lists the programs which are related to SDG 9:

S. No	Programes	School/Institute
1	BBA	Amity Business School
2	MBA	
3	MBA (Banking & Finance)	
4	MBA (Executive-Full Time)	
5	BBA (Banking & Finance)	
6	MBA (Hospital & Healthcare Management)	
7	Bachelor of Hotel Management	Amity School of Hospitality
8	Bachelor of Tourism & Travel Management	
9	B.Sc. (Hons) - Biotechnology	Amity Institute of Biotechnology
10	B.Tech (Biotechnology)	
11	M.Sc. (Biotechnology)	
12	M.Tech (Biotechnology)	
13	B.Sc. (Hons) Biological Science	
14	M.Sc. (Data Sciences)	
15	M.Tech (Solar & Alternate Energy)	Amity School of Applied Sciences
16	M.Sc. (Biochemistry)	
17	M.Sc. (Forensic Sciences)	
18	B.Sc. (Hons) - Forensic Sciences	
19	M.Sc. (Renewable Energy)	
20	B.Sc. (Hons) - Earth Sciences	Amity School of Earth and Environmental Studies
21	M.Sc. - Environmental Sciences & Management	
22	B.Tech (Civil Engineering)	ASET
23	B.Tech (Computer Science & Engineering)	
24	B.Tech (Electrical & Electronics Engineering)	
25	B.Tech (Electronics & Communication Engg.)	
26	B.Tech + M.Tech (Artificial Intelligence & Robotics) Integrated	
27	B.Tech (Mechanical Engineering)	
28	M.Tech (Electronics & Communication Engg.)	

29	B.Tech (Aerospace Engineering)	
30	B.Tech (Biomedical Engineering)	
31	B.Tech. - Computer Science & Engg. + MBA (Dual Degree)	
32	M.Tech (Mechanical Engineering)	
33	M.Tech (Civil Engineering)	
34	M.Tech (Network & Cyber Security)	
35	M.Tech (Artificial Intelligence & Robotics)	
36	B.Tech + M.Tech (Data Sciences) Integrated	
37	B.Tech + M.Tech (Network & Cyber Security) Integrated	
38	M.Tech (Data Science)	
39	M.Tech (Defence Technology)	
40	Master of Computer Application	
41	Bachelor of Computer Application	ASET (AIIT)
42	Bachelor of Science (Information Technology)	
43	B. Des. (Fashion Design)	AID (FD)
44	Bachelor of Interior Design	AID (ID)
45	B. Sc Nursing #	
46	M. Sc Nursing #	ACON
47	Post Basic Nursing #	
48	Bachelor of Pharmacy	AIP
49	Bachelor of Audiology & Speech Language Pathology #	
50	Master of Hospital Administration (MHA)	
51	B.Sc. (Dietetics & Applied Nutrition)	
52	Master of Optometry	
53	Master of Optometry (M.Optom) Practitioner	
54	Bachelor of Optometry	
55	M.Sc. (Dietetics & Applied Nutrition)	AMS
56	Master of Public Health	
57	M.Sc. (Clinical Research)	
58	B.Sc. (Medical Lab Technology)	
59	M.Sc. (Medical Lab Technology)	
60	BSc in Molecular Medicine & Stem Cell Technology (MMSCT)	
61	MSc in Molecular Medicine & Stem Cell Technology (MMSCT)	
62	Bachelor of Architecture #	
63	Bachelor of Planning	ASAP
64	Master of Planning (Urban and Regional)	

Research and Innovation Infrastructure

The University is committed in integrating education with human values, in pursuit of research, nurturing innovations, development of innovative products and innovated systems in an environment of learning. The competent pool of 346 dedicated full time faculty members, experts in their field, is strongly committed to the cause of research and innovation.



Interdisciplinary Research Clusters

Amity is committed to promote interdepartmental translational research in areas of high national and global relevance such as Cancer Research, Lipidomics, Computational Biology, Infectious Diseases, Nano Science and Technology, Environment and Human Health, Climate Research, Agriculture and Herbal Drug Design and Technology.



Directorate of research & Publications

DRP is responsible to create a repository of all the innovation ideas, research and publications. Some of the publications in high impact journals for the academic session 2021-22 related to SDG 9 are listed below:

1. Soharu A, Bp N, Sil A. Fly ash bricks development using concrete waste debris and self-healing bacteria. *J Mater Cycles Waste Manage* 2022;24(3):1037-1046.
2. Gupta J, Rathour R, Dupont C, Mishra A, Shekhar Thakur I. Biogeochemical profiling and taxonomic characterization of municipal landfill site by metagenomic sequencing. *Bioresour Technol* 2022;351.
3. Garg A, Nayyar A, Singh AK. Improved seam carving for structure preservation using efficient energy function. *Multimedia Tools Appl* 2022;81(9):12883-12924.
4. Gupta S, Sihag P. Prediction of the compressive strength of concrete using various predictive modeling techniques. *Neural Comput Appl* 2022;34(8):6535-6545.
5. Chahar D, Thakur P, Kumar R, Thakur A. Influence of Mg doping on the structural, electrical and dielectric properties of Co-Zn nanoferrites. *J Magn Magn Mater* 2022;544.
6. Sharma A, Mani N, Bhardwaj R, Kumar K. Thermal Vibration of Rectangle Plate with Two-Dimensional Circular Thickness Effect. *Math Probl Eng* 2022;2022.
7. Das S, Sil A, Naveen BP. Effects of Soil-Structure Interaction on Seismic Fragility of Railway Concrete Bridge, in India. *Iran J Sci Tech Trans Civ Eng* 2022.
8. Das S. Thermal analysis of a house made of composite walls comprising of a solar PV panel and an epoxy/Al polymer located in Gulmarg. *Int J Ambient Energy* 2022.
9. Yadav S, Sharma S, Singh B, Sharma PB. Effect of groove shape on mechanical properties of surface composites of Al 6082 prepared using friction stir processing. *Mater Today Proc* 2022.
10. Bodkhe MG, Sharma S, Mourad A-I, Sharma PB. Finite element analysis of copper tube to study the behavior of equivalent strength during the severe plastic deformation process. *Mater Today Proc* 2022;56:3129-3136.
11. Yadav S, Sharma S, Singh B, Sharma PB. Effect of quenching on post-processed aluminum 6082 alloy using friction stir processing. *Mater Today Proc* 2022;63:387-394.
12. Sharma A, Bhardwaj R, Lather N, Ghosh S, Mani N, Kumar K. Time Period of Thermal-Induced Vibration of Skew Plate with Two-Dimensional Circular Thickness. *Math Probl Eng* 2022;2022.
13. Parkash O, Kumar A, Sikarwar BS. Drag model validation of slurry pipeline using CFD. *J Eng Res (Kuwait)* 2022;10(1B):193-204.
14. Zhu H-, Naveen BP, Wang J, Cheng G, Gao Y. Research Status and Prospect of Anti-slide Piles for Slope Stabilization. *Lect Notes Civ Eng* 2022;230 LNCE:223-236.
15. Negi DP, Abdul Azeed EP. 'No Means No': People's Protest Against Hydroelectric Development in Kinnaur, Himachal Pradesh, India. *Contemp* 2022.
16. Joshi T, Parkash O, Krishan G. Numerical Investigation of Slurry Pressure Drop at

- Different Pipe Roughness in a Straight Pipe Using CFD. Arab J Sci Eng 2022.
17. Yadav S, Sharma S, Singh B, Sharma PB. Comparison of Mechanical properties in Single-Pass, Two-Pass and Three-Pass approach Friction Stir Processing of Aluminium Alloy. Int J Eng Trends Technol 2022;70(1):291-298.
 18. Chao Q, Maneengam A, Margabandu S, Jindal P, Patil PY, Zheng G-, et al. Mechanical and damping property evaluation of jute fiber reinforced composite periodic core sandwich panels. J Nat Fibres 2022.
 19. Soharu A, Naveen BP, Sil A. An Approach Towards Zero-Waste Building Construction. Lect Notes Civ Eng 2022;196:239-257.
 20. Parkash O, kumar A, Sikarwar BS. Computational Erosion Wear Model Validation of Particulate Flow Through Mitre Pipe Bend. Arab J Sci Eng 2021;46(12):12373-12390.
 21. Vats M, Chhabra A, Yudha SS, Choudhary G, Taliyan M. Nanopolysaccharides and pharmaceutical applications. Innovation in Nano-polysaccharides for Eco-sustainability: From Science to Industrial Applications; 2021. p. 201-216.
 22. Effectiveness of existing green rating systems towards zero waste construction. AIP Conference Proceedings; 2021.
 23. Ghosh S. Immersed boundary simulations of fluid shear-induced deformation of a cantilever beam. Math Comput Simul 2021;185:384-402.
 24. Chalia S, Bharti MK, Thakur P, Thakur A, Sridhara SN. An overview of ceramic materials and their composites in porous media burner applications. Ceram Int 2021;47(8):10426-10441.
 25. Gupta A, Sharma A, Singh H, Rajoria CS. Computational and statistical analysis on the U-tube heat exchanger with different passes configuration: Taguchi method. Heat Transf 2021;50(2):1712-1732.
 26. Mandpe A, Yadav N, Paliya S, Tyagi L, Ram Yadav B, Singh L, et al. Exploring the synergic effect of fly ash and garbage enzymes on biotransformation of organic wastes in in-vessel composting system. Bioresour Technol 2021;322.
 27. Bhardwaj R, Mani N, Sharma A. Time period of transverse vibration of skew plate with parabolic temperature variation. JVC/J Vib Control 2021;27(3-4):323-331.
 28. Joon I, Das S, Srivastava CM. Fabrication of Metal-Doped Polymer to Study Its Thermal and Mechanical Properties. Lect Notes Mech Eng 2021:31-42.
 29. Sinha S, Dhamiwal A, Sharma P. Cluster-Based Approaches for Energy Efficiency in Wireless Sensor Network. Lect Notes Networks Syst 2021;177 LNNS:655-664.

Centers for Excellence

At Amity University Gurugram multiple Centres of Excellence have been established

to promote Research and Development in diversified areas.



The details may be found at: https://www.amity.edu/gurugram/centre_of_excellence.aspx

Amity Patent Cell is highly active in promoting 'patenting culture' among faculty, students and research scholars.

Research Laboratories

The research ecosystem of the University is strongly supported by over 100 most high-tech laboratories. It offers cutting edge practical exposure to the students and train them to be industry ready professionals. Science, engineering and technology laboratories equipped with modern equipment's such as Confocal microscope Inverted fluorescence microscope, Ultracentrifuge, Gel imaging system, FTIR spectrophotometer, Fluorescence spectrophotometer, Simultaneous Thermal Analyzer ST 8000, NASA-AERONET Multi-Spectral Sun-Sky Radiometer- Model # 133, Modeling of

Air Pollution And Networking (MAPAN), (AQMS) – A suit of PM, Gas and Met Sensors- Model: ESA, Weather and Environmental Monitor (Pocket Weather Tracker)- Model: 4500NV, Aethalometer (Black Carbon & Biomass Burning Analyzer)- New Generation AE-33 to name a few. A newly sanctioned DST-FIST project will add an Nuclear Magnetic Resonance (NMR) spectrometer and a Gas-Chromatograph-Mass Spectrometer to the university research infrastructure. More details may be found at:

<https://www.amity.edu/gurugram/labs>

Central Instrument Research Facility (CIRF)

The Central Instrument Research Facility (CIRF) is housed at Amity University Haryana, Gurugram provides a central facility of latest and advanced analytical instrument for research and for promoting interdisciplinary research.

Amity Lipidomics Research Facility (ALRF)

ALRF was established at the Amity University, Haryana in 2018, with funding from Department of Science and Technology (DST-FIST) Gov. of India and Amity University, Haryana.

The purpose of establishing this facility is to provide the scientific community (within Amity University and external researchers, both academia and industry) with state-of-the-art mass spectrometric techniques for separation, identification and quantitation of biomolecules like lipids, metabolites and proteins.

Please visit:

<https://www.amity.edu/gurugram/lipidomics-research-facility.aspx> for more details.

Amity Materials Research Facility (AMRF)

AMRF established at Amity University Gurugram in 2020, with funding from Department of Science and Technology (DST-FIST) Govt. of India and Amity University Haryana, is open to usage by scientific community and industry people. The

purpose of establishing this facility is to provide the scientific community (within Amity University and external researchers, both academia and industry) with state-of-the-art Particle Size & Zeta Potential Measurement, Thermoanalysis and Spectroscopy Facility for material science research in diverse fields of Applied Sciences.

Please visit:

<https://www.amity.edu/gurugram/amity-materials-research-facility.aspx> for more details.

Library

The libraries at AUH are an integrated knowledge resource centre that is stocked with more than 50 thousand books, periodicals, references, national and international journals, conversing all aspects of academic studies and research materials. The Library has online journals and access to e-journals, databases etc., extensive E-database such as - EBSCO, IEEE, ACM Digital Library, Oxford University Press, Institute of Physics, Nature Journal, Portland Press, Royal Society of Chemistry, Taylor & Francis, American Institute of Physics, AIP, DELNET, SCC Online, Manupatra

Industry Interactions

Regular industry interaction forms an integral part of the academic curriculum as it helps the students not only get industrial exposure but also a chance to understand the global business practices, to know more:

<https://www.amity.edu/gurugram/industry-interaction>

There are funded projects in collaboration with Industry or R&D Institutions which are carried out by faculty members at AUH:

- The project titled DBT Skill Vigyan Programme under state partnership in Life Science and Biotechnology is awarded to Dr. Rajendra Parsad, which is funded by Department of Biotechnology amounting to Rs. 12300000.
- The project titled Co-ordination between interdependent networks: Network-dynamics and emergence of collective phenomena is awarded to Dr. Nirmal Punetha, which is funded by SERB amounting to Rs. 2119400.
- Project Title- "Fund for Improvement of S&T infrastructure in University and Higher Education Institution (FIST) Programme-2016". PI: Prof. Rajendra Prasad , Funding Agency: FIST-2016, Sanctioned Amount: 16500000.
- Project Title- "Nanotechnology for Healthcare and Environment - Exploring New Horizons", PI : Prof. AK Yadav (ASAS Dept.), Funding Agency: FIST-2018, Sanctioned Amount: 8400000.
- Project Title- "Capacity Building and Personality Development Program (PDP) for female undergraduate and Postgraduate students at AUH", PI : Dr. Rajesh Nair, Funding Agency: National Commission for Women, Sanctioned Amount: 150000



Happenings, Events and Outreach

During the year, AUH has organised more than 50 events and activities to inspire and support young entrepreneurs. This translates to about an event a week and include FDP/PDP, seminars/webinars, expert talks/guest lectures, training programs etc. A list of the events along with the relevant details is presented below. As may be seen several eminent resource persons from the industry and academia interacted with the students, faculty and staff.

S No	Date From - Date To	No of Days	Title of event	Type of Event	Resource Person
1	12-Jul-21 - 16-Jul-21	5 Days	Recent Advances, Trends and Challenges in field of Nanotechnology	FDP	<p>Prof Agnishwar Girigoswami Professor CARE, Chennai, India</p> <p>Dr. Sunil K Kushvaha Principal Scientist NPL, India</p> <p>Prof SVS Rana, Professor Nanotoxicology present and future perspective CCSU, Meerut</p> <p>Dr Vinod Singh Associate Professor DTU, New Delhi</p> <p>Dr. Ratheesh Revendran Director CMET, Hyderabad</p> <p>Dr Sanjay Kashyap Assistant Professor Thapar University, Punjab</p> <p>Dr M S Mehta Assistant Professor DTU</p> <p>Dr R S Dhaka Associate Professor IIT – D, New Delhi</p> <p>Dr. Manika Khanuja Assistant Professor JMI, Delhi, India</p> <p>Dr. Paresh Patel Assistant Professor Uka Tarsadia University, Gujarat, India</p> <p>Dr. Dhruv Pratap Singh Assistant Professor IIT Bhilai</p> <p>Dr Ravi Kumar Professor NIT, Hamirpur</p> <p>Prof. P.B. Sharma Vice Chancellor Amity University Haryana</p> <p>Dr. Khusboo Aggarwal Sr. Research Associate Lanchester University, UK</p> <p>Prof. R. P Tandon Professor Delhi University</p> <p>Dr. Raghunath Bhattacharya Visiting Professor IEST, Kolkata</p>
2	19-Jul-21 - 23-Jul-21	5 Days	Entrepreneurship The new age skills for sustainable future and social development	Professional Development Program	<p>Dr. Roopak Vasishtha CEO & Director General Employability, Skills and Entrepreneurship Apparel Made-Ups & Home Furnishing Sector Skill Council, Govt of India</p> <p>Dr. P. R. Dutta Executive Chair- Centre for Business & Economic Research, Editor-in-Chief, Journal of Business and Retail Management Research, Senior Lecturer Northampton University at Regent College</p> <p>Aakash Gupta Leader, Client Capabilities Hub Mckinsey</p> <p>Mr. Addison Appu VP-Investments ThinkKuvate</p> <p>Mr. Alok Sinha CEO Globus Eight New York, United States</p> <p>Dr. Anuja Pandey Professor-Marketing, Head, India Case Research Centre Case Research Centre – AIMA-ICRC Program Director – PGCM Programs-</p> <p>Dr. Shweta Singh CEO Ennoble</p> <p>Asha Kapoor Managing Director Famhealth (P) Ltd</p> <p>Dr. Vinod Kumar Murti Country Head, Institute of Analytics, London India Institute of Analytics</p> <p>Indranil Bose Dean, School of Business University of Bolton, RAK, UAE</p> <p>Mr. Sameer Kaul Former CEO, COO and CMO @ Top</p>

						Market Leader Brands. India's Top 50 CMOs list Top Market Leader Brands. India's Dr. Madhusudan Bhat Director(Research & Development) iHeal Innovations LLP Prof. M. K. Shome Professor Department of Management and Humanities,National Institute of Technology Arunanchal Pradesh, Ministry of Education. Govt of India Prof. Amar Kr. Sundram Professor - Commercial Legal Practice, Jindal Global Law School O.P. Jindal Global University, Sonipat, Haryana
3	24-Aug-21	24-Aug-21	1 Day	Application of Micro and Nanotechnologies	Seminar	Dr V K Jain Distinguished Scientist & Professor Nanotechnology, MEMS Amity University, Noida
4	20-Sep-21	24-Sep-21	5 Days	Nanotechnology and Materials Science	Webinar	Dr. Amit Seth Associate Professor Nanotechnology and biotechnology Manipur University Mr. Anshuman Assistant Manager Class One Systems Pvt. Ltd. Mr. Hitesh Mamagain Director WITec GmbH Germany Instruments Mr. Shubham Associate Professor Hioki Pvt. Ltd.
5	21-Sep-21	21-Sep-21	1 Day	Innovation and IPRs	Webinar	DR. Rahul Taneja Scientist HSDST
6	7-Oct-21	7-Oct-21	1 Day	Catalytic reaction for a sustainable future	Seminar	Prof. Anirban Das Associate professor, CBFS, ASAS, AUH
7	2-Dec-21	2-Dec-21	1 Day	Innovation Strategy for Universities to Create Opportunities of Entrepreneurship in Mitigating Environmental Issues	Webinar	Dr. B K Sahu Regional Manager & Head Intellectual Property and Innovation NRDC
8	28-Jan-22	28-Jan-22	1 Day	Adventure Tourism & Entrepreneurship	Webinar	Mr. Rakesh Jain Adventure Tourism & Entrepreneurship Outdoor India
9	8-Feb-22	8-Feb-22	1 Day	Hospitality Entrepreneurship & Startup Innovations	Webinar	Chef Atul Malik Managing Director/ Owner Hospitality Wall Street/Papa Whiskey/Penthouse/Karim's/ Le Antares
10	24-Feb-22	24-Feb-22	1 Day	Design Thinking, Critical Thinking and Innovation Design	Webinar	Ms. Ekta Jafri. Design Director Expertise in Product Design, Critical Thinking and Innovation strategy. IBM iX
11	24-Feb-22	24-Feb-22	1 Day	Building Quantitative tools to assess Country Risk for International Investor	Webinar	Mr. Vivien Massot Managing Director Expertise in International Economics TAC Economics India

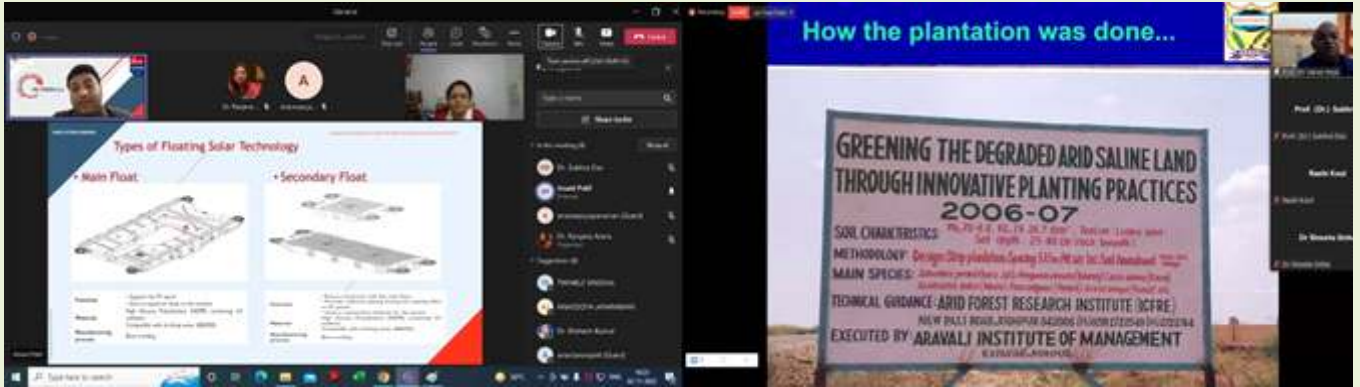
12	18-May-22	18-May-22	1 Day	Stock Market Operations", by Mr. Chiranjeev Khanna, Founder, Stock Daddy.	Seminar	Mr. Chiranjeev Khanna Head Program & Design, Stock Daddy
13	4-Sep-21	4-Sep-21	1 Day	Campus to Corporate- Transform yourself & Be the Gamechanger	Expert Talk	Mr. Anil Bhasin President (Superannuated) Havells Mr. Ashutosh Chadha Director & Country Head- Govt Policy Advocacy Microsoft Mr. Sharad Gupta Director Corporate Communication and Brand strategy, Vice President and Head -Innovation Escorts Ltd Mr. Samir Kapoor Director Ad Factors Ltd
14	19-Sep-21	25-Sep-21	7 Days	Amity Stem Cell Institute and Kiran Mazumdar-Shaw Centre for Affordable Innovation (KMSCAI) Lecture Series- 2021	Expert Talk	Dr. Arvind Chhabra Professor & Director Stem Cell and Molecular Medicine Amity Stem Cell Institute Dr Manoj Kashyap Associate Professor Amity Stem Cell Institute Dr Vimal Kishor Singh Associate Professor Amity School of Engineering and Technology Dr Suresh K Kalangi Astd. Professor Amity Stem Cell Institute Dr Soumen Chakraborty Scientist - F Institute of Life Sciences (ILS), Bhubaneswar
15	21-Sep-21	21-Sep-21	1 Day	Overview of Market Research and Career Prospects in the Industry	Guest Lecture	Mr. Sandeep Singh Associate Consultant, Global Primary Intelligence IQVIA
16	21-Sep-21	21-Sep-21	1 Day	Solar operated direct energy conversion systems for power generation options	Guest Lecture	Dr Ravita Lamba Asst.Prof. Solar Photovoltaics & Thermoelectric systems MNIT,Jaipur, Rajasthan
17	22-Sep-21	22-Sep-21	1 Day	Role & Relevance of IPR in pharmaceutical Industry	Guest Lecture	Mr. Ravikant Ravi Senior Research Associate, Evalueserve, Gurugram
18	23-Sep-21	23-Sep-21	1 Day	Changing domains and career opportunities	Guest Lecture	Mr. Santosh Jha Peer Reviewer, Pharmacovigilance Wipro India PVT Ltd.
19	24-Sep-21	24-Sep-21	1 Day	Nanotechnology: A prospective towards cleaner environment	Guest Lecture	Prof. Ajay Kumar Mishra Nanoscience/Nanotechnology; Materials Science; Polymers; Composite/Nanocomposites; Photocatalysts and Water Research College of Science, Engineering and Technology, University of South Africa
20	11-Oct-21	11-Oct-21	1 Day	Overview of Diagnostic Industry in our country	Guest Lecture	Mr. Shibu Shrestha Head Hr & Corporate Affairs Pathkind Diagnostics Pvt Ltd
21	15-Nov-21	15-Nov-21	1 Day	E-Commerce Functionality and Technology	Expert Talk	Mr. Sunil Gujral Founder & Director FutureSoft India Pvt Ltd)

22	28-Feb-22	28-Feb-22	1 Day	Hospitality Industry-Trends and Opportunities	Guest Lecture	Vikramjit Singh President Expertise in Hospitality Sector -Strategy and Higher management Lemon Tree Group of Hotels
23	22-Apr-22	22-Apr-22	1 Day	Intellectual Property Rights	Expert Talk	Harish Sharma IPR Specialist, AUH
24	23-Apr-22	23-Apr-22	1 Day	Nurse Entrepreneur: Breaking the Role stereotypes	Expert Talk	Dr. Ramu K Dean (Medical Surgical Nursing) RGUHS, KARNATAKA
25	14-May-22	14-May-22	1 Day	Patents, Copyrights in Nursing and its Filing Process	Expert Talk	Dr. Dipti Shukla, Principal Samarpan Institute of Nursing and Paramedical Sciences Prof. Abhra Pratip Ray Professor Prathiba College of Commerce and Computer Studies
26	19-May-22	19-May-22	1 Day	IPRs and IP management for Startup	Expert Talk	Prof. Kamal Dev IPR Specialist Shoolini University
27	26-May-22	26-May-22	1 Day	Legal Compliances for Startup	Expert Talk	Mr Asif Iqbal Head Product and Strategy Funding, Startup, Legal Advice Lawered
28	20-Sep-21	20-Sep-21	1 Day	Innovation Day Film Screening	Workshop	Dr. Sam V. Rao, Associate Professor, ASCO, AUH
29	20-Sep-21	20-Sep-21	1 Day	Trash to Treasure	Workshop	Ms. Aditi sharma Teaching Associate Fashion Illustration & Model Drawing, Computer aided design & Computer aided Manufacturing,AID, AUH
30	24-Sep-21	24-Sep-21	1 Day	Furniture Design	Workshop	Ar. Rahul Mehta (Coordinator, BID) ASAP, AUH
31	29-Sep-21	29-Sep-21	1 Day	Smart Materials	Workshop	Prof. cheng-Hsin Chuang Director Biosensors and their applications NSYSU, Taiwan Prof. S.K. Sharma Professor Nanomaterials- synthesis and characterization JNU, New Delhi Dr. Neelam Kumari Scientist Optical properties of smart materials CSIO, Chandigarh
32	13-Apr-22	13-Apr-22	1 Day	Workshop on Innovative Illustrations	Workshop	Ms. Aditi Sharma Teaching Associate Fashion art Illustrations & Model drawing, Computer aided design & Computer aided manufacturing. Amity University Haryana

33	22-Apr-22	22-Apr-22	1 Day	Sustainable Building Practices	Workshop	NA
34	6-May-22	6-May-22	1 Day	National Contest on "Science & Art of Soap Making-A Concept Note	Workshop	Prof. A. Bhattacharya Deputy Director Hospitality AIH, AUH Prof. Satish Sardana Director Pharmacy AIP, AUH Dr. Tanushri Purohit HOD Skills and Marketing ASI, AUH Dr. Subra Das HOD Solar Engineering ASET, AUH Mr. Piyush Gupta CEO Extraction of Essential Oils Kanha Nature Oils
35	11-May-22	19-May-22	9 Days	Textile Testing Technology	Workshop	Ms. Kavita Assistant Professor TEXTILE SCIENCE AID, AUH
36	13-May-22	20-May-22	8 Days	Surface Ornamentation-Innovative techniques of Tie & Dye	Workshop	Ms. Raka Sharma Textile Designer Tamanna
37	25-May-22	25-May-22	1 Day	E-Waste & Circularity	Workshop	Mrs. Panni Verma Project Manager Organizational Development, Project Initiation and Implementation, Training Program Design, Communication & People Orientation, etc. SAAHAS Ms. Deepika Chhetri Project Coordinator natural resources SAAHAS Mr. Shivam Rawat Project Coordinator zero-waste sustainable solutions SAAHAS
38	20-Sep-21	20-Sep-21	1 Day	E-Business case study presentation	Student Activity	Dr. Ravi Ranjan Assistant Professor ACC Mr. Shiv Swaroop Jha Assistant Professor ACC, AUH
39	22-Sep-21	22-Sep-21	1 Day	ASCO's Got Talent	Student Activity	Dr. Pooja Rana Professor Journalism and Mass Communication ASCO, AUH Dr. Preeti Singh Assistant Professor Journalism and Mass Communication ASCO, AUH
40	23-Sep-21	23-Sep-21	1 Day	Innovation Per Second	Student Activity	Dr. Sam Vinay Rao Associate Professor Mass Communication ASCO, AUH Dr. Preeti Singh Assistant Professor Mass Communication ASCO, AUH
41	24-Sep-21	24-Sep-21	1 Day	Start-up "Born from the Seed"	Student Activity	Dr. Nilmani Tripathi Assistant Professor ACC Mr. Shiv Swaroop Jha Assistant Professor ACC, AUH
42	16-Mar-22	16-Mar-22	1 Day	Innovative Ideas in Nursing Science	Student Activity	Mr Surenda Sharma Associate Professor Child Health Nursing ACON
43	28-Apr-22	28-Apr-22	1 Day	Business Quiz	Student Activity	

44	18-May-22	18-May-22	1 Day	BUZZ WIZZ	Student Activity	
45	19-May-22	19-May-22	1 Day	Innovative Contemporary Blouses	Student Activity	NA
46	10-Jan-22	14-Jan-22	5 Days	Building Urban Resilience Through Advanced Technology	Training Program	Dr Piyoosh Rautela Executive Director Uttarakhand State Disaster Management Authority Dr Sudhakar Shukla Head, School of Geo-informatics & Scientist Remote Sensing Applications Centre, U.P., Lucknow Dr. Sweta Baidya Consultant, NIDM Dr. Kopal Verma Junior Consultant Geography, Urban and Regional Planning NIDM Dr. P P Nageswara Rao Outstanding scientist ISRO (Rtd)
47	1-Feb-22	31-Mar-22	30 Days	Training in Lean Six Sigma Foundation.	Training Program	Prof. (Dr.) Padmakali Banerjee Pro Vice Chancellor, Dean Academics Amity University Haryana Mr. Shivendra Sharma Instructor (Lean Six Sigma Master Black Belt) Six Sigma Foundation
48	24-Feb-22	24-Feb-22	1 Day	STUTI (Synergistic Training program Utilizing the Scientific and Technological Infrastructure) An initiative of Department of Science & Technology	Training Program	Prof. (Dr) P.B. Sharma Vice Chancellor AUH Prof. Dr. Vikas Madhukar Dy Pro Vice Chancellor, AUH Maj Gen Gurpal Singh Bal (Retd.) Dean Students Welfare , AUH Prof. (Dr) A.K. Yadav Director Amity School of Applied Science, AUH
49	25-Feb-22	25-Feb-22	1 Day	Lean Six Sigma Certification	Training Program	Mr. Shivendra Sharma Instructor (Lean Six Sigma Master Black Belt) Six Sigma Foundation
50	8-Apr-22	8-Apr-22	1 Day	Industrial Visit to Mindarika Limited	Insuatrial Visit	NA
51	20-May-22	20-May-22	1 Day	Industry Experience Visit to Centre of Excellence, Apparel Made-UPS Home Furnishing Sector Skill Council, New Delhi.	Industrial Visit	Mr. Vipul Wahal centre head office AMHSSC
52	20-Sep-21	24-Sep-21	5 Days	New Challenges and Opportunities in Aerosol Pollution Research: An Indian Perspective	Orientation Programme	<ul style="list-style-type: none"> • Dr. V.K. Soni, Head, EMRC, IMD • Prof. U.C. Kulshrestha, Dean, School of Environmental Sciences, JNU • Dr. Atul Kumar Srivastava, Principal Scientist, IITM-Delhi Branch • Prof. Sagnik Dey, Chair & Associate Professor, IIT-D • Dr. Sachin Ghude and Dr. Gaurav Givardhan, Senior Scientists, IITM, Pune
53	8-Apr-22	11-Apr-22	4 Days	Internal Smart India Hackathon-2022	Hackathon	NA

54	11-May-22	11-May-22	1 Day	Integrated Approach in Science and Technology for Sustainable Future	Celebration Day	Dr. S.K Varshney Scientist G, Head, International Co-operation DST Dr. Nirmaljeet Singh Kalsi, IAS(Retd.), Chairperson, NCVT Dr. N K Mathur Member Central Water Commission (Dr.) Arun Deep Ahluwalia Ex HOD, Department of Geology
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Webinar on Different types of PV Module mounting Structures for Rooftop and ground mounted solar power system organized on 2nd Nov. 2022.

Glimpse of the National Energy Conservation Day, organized on 14th Dec 2021

Research Project, Publication, and Patents

During the last year, over 54 research and consultancy projects received grants worth Rs 21.7 Cr from Govt & Non Govt agencies, major science & technology organization such as:- DST, UGC, RFBR, SERB, ICMR, FIST, MNRE, DBT, etc. apart from industry collaborators including foreign ones. The University has filed 175 patents. 15 authored books, more than 200 book-chapters and 4900 research paper were published by faculty and students in reputed national and international journals. The Patent Facilitation

Centre provide needed support to faculty in patent filing process.

Entrepreneurship and start-up ecosystem

Overall research ecosystem of the University provides an excellent opportunity for setting-up start-ups and facilitate in nurturing the innovation culture of the university and act as an accelerator of commercialization of the research outcomes of the University and also be advantageous for the entrepreneurs to connect them with industry, society and government entities and achieve maximum efficiency in the development of companies.



v Amity Innovation Incubator

Incubator at Amity University Haryana has a clear philosophy to encourage and incubate technology based new enterprises with innovative products and services with a mandate to strengthen collaboration between industry & academia and turn ideas into visible businesses have to encourage the students for entrepreneurship. The thrust

areas are ICT, Environment & Health Care, Agribusiness, Biotechnology and Nanoscience, Artificial Intelligence & Robotics

Broadly, Amity Innovation Incubator provides the following services to its incubatees:

- Mentoring and Advisory
- Financial Advisory and Support

- Infrastructure and Support

Amity Innovation Incubator, Gurugram is supported by Ministry of Electronics and Information Technology under MeitY Startup Hub TIDE 2.0 G3C Incubation Centre

- More than 23 Student start-ups
- Strong pipeline of high potential innovative start-up ideas
- More than 50 events on Entrepreneurship promotion and workshops have been organized during last one year to support existing entrepreneurs and students community

- Direct support to Meity Entrepreneurs via academic partnership with University

- Strong advisory and mentoring committee with decades of relevant experience and networking with more than 1000 leading companies and a pool of more than 200 industry mentors. Networking with other Institutions/Labs/Academia: MoUs with reputed international Universities and R&D Centres for education and research.



Amity Innovation Incubator in collaboration with Meity

v Entrepreneurship Cell (E-Cell):

Further, E-Cell operating is actively involved in creating an ecosystem of entrepreneurship and start-ups in the campus by involving students in various entrepreneurial events & activities, providing various opportunities to students to interact with entrepreneurs and helping them in developing business ideas and providing start-up support to the students through Amity Incubation Centre.

- Entrepreneurship Awareness Camps
- Fortnightly lecture series – 'Real Entrepreneurs, Real Story'
- Idea and design thinking workshops
- B. Plan competitions
- Hackathons
- Entrepreneurship Boot camps
- Brainstorming sessions

v Institute Innovation Council under Ministry of Human Resource

Development, Government of India

Amity University Haryana Institution Innovation Council is primarily responsible for fostering entrepreneurial skills amongst students and assisting budding entrepreneurs by providing them with necessary resources. Our vision is to develop, support and deliver the Entrepreneurship spirit among students in their quest to achieve success in establishing their venture at all junctures. Our mission is to explore the opportunities for self-employment and inculcate the spirit of 'Entrepreneurship' in young Amitians and nearby societies to foster the brightest ideas to one platform and convert them into business.

v Rural Innovation and social Entrepreneurship (RISE)

Amity rural innovation incubator will incubate rural innovation based ventures virtually through its execution partner and Amity Venture fund will invest Seed Capital in those

ventures to take it to the next level. Execution partner will scout & select potential innovations and provide on ground incubation support to the ventures for running it successfully The 'Rural Innovation Incubator' (RII) at AUH is aimed at providing low cost need based technological solutions for rural areas which are technically feasible, economically viable, socially acceptable, environment friendly, consistent with household endowment and relevant to the needs of rural people. Under RII, students have done a survey of nearby villages and worked out on providing alternative solutions to the power and energy needs of these villagers. As a result, the incubator has 'beta-tested' Solar technology in Langra village. The Solar Street Lights and Solar Batteries have been installed and their results were monitored. The feedback has been taken from the local villagers which was very positive and enthusiastic.



v Courses on Entrepreneurship and Skill Development

AUH is a multidisciplinary University offering UG, PG and PhD programmes in various disciplines of Science, Technology, Management, Liberal Arts, Law, Earth & Environmental Science and Medical & Allied Health Sciences in which about 6000 students are enrolled, including over 500 PhD research scholars.

- Ministry of Skill Development and Entrepreneurship had empanelled AUH as training partner under PM YUVA Yojna to educate and equip potential and early stage entrepreneurs. The University has target to impart formal training of entrepreneurship and prepare 2,500 entrepreneurs in next 5 years. under this Entrepreneurship course is being offered as full time Flexible certification course with 18 credit and 6 tracks. Various programmes are offering Entrepreneurship development as one of the subjects for the awareness and understanding of entrepreneurship.
- The University has been selected for the prestigious 'Hunar Sai Rojgar Tak' under the scheme of Capacity Building for Service Providers' of Ministry of Tourism;
- The University has selected by National Institute of Solar Energy, Ministry of Renewable Energy for 'Suryamitra Skill Development' Training in Solar PV Installation.
- MoU with National Skill Development Corporation (NSDC) and other sector Skill Development Councils to impart skill

based courses to students;

v University Spin offs

Amity Innovation Incubator & ECell worked towards motivating students' ideas and help them to convert into ventures. More than 23 ideas converted into ventures in recent years and few of them graduated are listed below:

- **Plabs Solutions Private Ltd** is an enterprise based upon an innovative idea with Intellectual property right, received funding from Meity for support its Pre-Doctor diagnosis platform. PreDoc is India's First AI based Audio Visual Platform used for Diagnostics of Symptoms of a Patient.
- **Legal Bites:** Mr Mayank Shekhar alumni student of Amity Law School, his venture Legal Bites is an Ed-tech platform. The website offers opportunities in the form of competitions, events and jobs relevant to the legal fraternity. It has constantly been working to create affordable, high-quality particulars on cases, codes, articles and interviews while catering a cosmopolitan responsibility
- **Elnio Fitment Pvt Ltd:** Mr. Ayush Awasthi, engineering graduate had a dream to start something of his own and started venture during final year of engineering. It specializes in casual and official wear for males and females.
- **Samzan Pvt Ltd:** BBA Graduates from Amity Business School Mr. Faizan & Ms. Samiya started this venture during their graduation at Amity. SAMZAN PVT LTD is a renowned and trustworthy manufacturer and supplier of cookware products, household products & food products.



The following is a list of Startups:

S No	Name of the start up	Thrust Area	Nature of start up
1	SAMZAN	Kitchenware Manufacturers	Manufacturer of kitchen appliances
2	Pustakkosh	Books	Text book rental company
3	Hash tag Food Truck	Food Truck	Food & Beverages
4	Legal bites	Law website	Legal courses portal
5	Aeronot Fragrances Pvt Ltd	Perfume company	FMCG
6	2 Tree Coffee Café	Food & Beverages	Food services
7	Bullskart	E-Commerce	
8	Elino Fitment Pvt Ltd	E-Commerce	Luxury Night wear clothing
9	Ezylegal	Legal Site	Online Legal advisory/consultation
10	P Labs Solutions Pvt Ltd	Health care	Online health related consultation
11	Last Mile Care	Health care	Online health related consultation
12	Cancerrx	Health Care	Online health related consultation
13	TCV COFFEE VAULT BEVERAGES PVT. LTD. (The Coffee Vault)	Food & Beverages	Food and beverages chain
14	Radheyan13 Robotics	Robotics	Robotics and AI based startup
15	Edudap India Pvt Ltd	Edtech	
16	ERESHA TECHNOLOGY INNOVATORS PRIVATE LIMITED		
17	Oralens Healthcare Pvt Ltd	Healthcare	Online health related consultation
18	Kulyantran Global Private Ltd	Robotics	Robotics and AI based startup
19	NanolatticeX	Healthcare	Online health related consultation
20	AIGROEDGE Technologies Private Limited		
21	AMN Tech LLP (CancerX)	Healthcare	Online health related consultation
22	Mimblu	Healthcare	Online health related consultation
23	DAL Waste Solution Pvt.Ltd	Waste Management	

Collaborations and MOUs

The University has entered various national and international collaborations and MoU to strengthen the ecosystem of education, research and innovation. A few are listed below:

S. No	Institution	Type
1	PHFI	Venture Capitalist
2	Media and Entertainment Skills Council	Knowledge
3	Management and Science University	Education Institute
4	Taiwan Education & Culture	International Agency
5	UAS International A Unit of United Accrual Services Pvt. Ltd. &UAS International Holidays Pvt. Ltd.	Corporate
6	IIT Bombay	Education Institute

The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations.

9 **INDUSTRY, INNOVATION AND INFRASTRUCTURE**





AMITY
UNIVERSITY
— HARYANA —

NAAC 'A'
GRADE
ACCREDITED UNIVERSITY

REPORT ON SUSTAINABLE DEVELOPMENT GOAL



YEAR 2021-22



PREAMBLE

Amity University Haryana is strongly committed to reduce inequalities and ensuring no one is left behind. The University operates with a mission of community development in an inclusive manner that allows shared progress. In conformity to SDG 10 – Reduced Inequalities - that envisages equal opportunity and reduce inequalities of outcome by eliminating discriminatory laws, policies and practices. India is a diverse country in terms people, casts, religion and local languages. Our 50 per cent students are from other 29 States spread across nation and 2.5 per cent students are from other countries situated in Asia, Africa, Europe, and the Americas.

TEACHING AND LEARNINGS

The University is committed to reduce inequalities through modules within the following courses

Undergraduate Programmes	Post Graduate Programmes
B.Sc – Nursing (https://www.amity.edu/gurugram/ug-nursing-courses)	Mater of Social Work (MSW) (https://www.amity.edu/gurugram/pg-social-work-courses)
BA – Political Science (https://www.amity.edu/gurugram/ug-liberal-arts)	MBA in Sustainable Management MBA in Hospital and Healthcare Management (https://www.amity.edu/gurugram/pg-management-courses)
BA (Hons) – Economics (https://www.amity.edu/gurugram/ug-economics-courses)	Master of Public Health (https://www.amity.edu/gurugram/pg-medical-courses)
Bachelor of Audiology and Speech Language Pathology (https://www.amity.edu/gurugram/ug-medical-courses)	Master of Economics (https://www.amity.edu/gurugram/pg-economics-courses)
Bachelor of Optometry (https://www.amity.edu/gurugram/ug-optometry-and-vision-sciences-courses)	M.Sc – Nursing (https://www.amity.edu/gurugram/pg-nursing-courses)
	Master of Optometry (https://www.amity.edu/gurugram/pg-optometry-vision-sciences-courses)

INCLUSIVE ADMISSION POLICY

The University is aimed at recruiting and admitting students who have the potential to and who are most able and likely to benefit from the University's learning, teaching and research environment, regardless of background and any discrimination. The University aims to establish an inclusive culture and policy initiatives which welcome and ensure equality of opportunity for applicants of all ethnicities, family structures, genders, nationalities, races, religious or philosophic beliefs, and socio-economic backgrounds.

The University supports a range of activities and initiatives aimed at widening access and fostering the University's inclusive culture. This policy is intended to provide a broad framework and a set of principles for determining admission for courses of the University, consistent with requirements and guidelines of University Grant Commission and other relevant regulatory and statutory bodies of the country, as applicable, regulating and promoting the higher education in India as well as in the State of Haryana.

Core Principles of AUH Admissions:

- Alignment with Institution Mission
- Fairness & Integrity
- Transparency

- Professionalism
- Accessibility
- Holistic Review
- Accurate & Timely Communication
- Financial Aid/ Scholarship
- Constant student engagement
- Meeting regulatory requirements

In year 2021, the University has admitted approximately 6 per cent of students from weaker sections/other backward classes/scheduled classes. The education at the University will facilitate upliftment of their social and economic status and will provide the equal opportunities in life to grow and progress.

SCHOLARSHIP AND FINANCIAL ASSISTANCE

The University offers Merit Scholarship and Means Cum Merit Scholarship to the students and also provides financial assistance in getting access to bank loan. During the year 2021 scholarship worth Rs 4,20, 84,000 have been given to 555 students which comprises 22 per cent of total number of students admitted during 2021.

The detail of scholarship scheme is available at <https://www.amity.edu/gurugram/scholarship-scheme>

The screenshot shows the AMITY University website's 'Education Loan' page. The page header includes the AMITY University logo and navigation links: ABOUT AMITY, PROGRAMS, CAMPUSES, INFRASTRUCTURE, RESEARCH, HAPPENINGS, and a yellow 'APPLY NOW 2021' button. Below the header, there is a breadcrumb trail: Admissions > Application Procedure > Career Test > Amity Scholarship > Education Loan > Admission Microsite > FAQs. The main heading is 'Education Loan'. The text states: 'Most Banks in the country offer attractive education loans for students. For the benefit of prospective students at AMITY, we have tied up with premier nationalized banks Oriental Bank of Commerce and Allahabad Bank. Both banks give the following advantages to students applying to AMITY.' A list of benefits follows: Cover all courses of AMITY; Include tuition fees, books cost, hostel fees, airfare for courses abroad; Concessional rate of interest; Speedy disposal of loan applications; Availability of the loan across the country. At the bottom, logos for Punjab National Bank, Oriental Bank of Commerce, Indian Bank, and Canara Bank are displayed. A footer note mentions: 'Amity has tied up with Oriental Bank of Commerce to make easy education loan available to the students. Given below are the benefits of the scheme:'. A 'SUBSCRIBE' button is visible on the right side of the page.

To support our students Amity has tied up with premier nationalized banks Oriental Bank of Commerce and Allahabad Bank. Both banks give the following advantages to students applying to AUH.

- Cover all courses of AUH.
- Include tuition fees, books cost, hostel fees, airfare for courses abroad.
- Concessional rate of interest.
- Speedy disposal of loan applications.
- Availability of the loan across the country.

The University also provided installment fee payment option to the students who are unable to make the full payment of fees. Fee structures of basic Sciences, Arts and Commerce courses are kept low as compared to professional programs to make University education affordable for students.

EARN WHILE LEARN PROGRAMME

The students are given opportunity to work in University while pursuing their studies. Also, students are provided opportunity of paid internship and working on live projects in industry.

STUDENT SUPPORT AND PROGRESSION

<https://www.amity.edu/gurugram/studentsection.aspx>

Student Support and Progression is an integral part of the quest for 'Academic Excellence' at Amity University Haryana. The various support functions required to manage the academic delivery have been designed and divided into departments such as admission, academics, examinations, placements, grievance/ complaints, network administration and general administration. Student Welfare is one of the most important areas in which the University has invested a

lot of thought and planning. Each of these areas and every wing of the University is staffed as per the anticipated work load, and also – as per the stipulations laid down by the various regulatory authorities of the Government of India and that of the Government of Haryana.

The University has adopted several strategic measures towards holistic development of students. In particular, it is important to mention its 'Student-centric Experiential Learning Approach', and productive engagement of AUH with industries for effective job placements through its CRC. Similarly, competency building of the students and adoption of a sustainable model for higher studies are some of the other endeavours towards this objective.

The University ensures that students are exposed to the best practices and environment of other institutions of higher learning/ corporate/business houses for a better academia-industry integration. This is achieved by arranging visits to the various academic institutions and corporate business houses.

AUH has set up high standards in Student Support. The University upholds the best quality, authenticity and accountability of the placements to both national and international students.

Student exchange programs with various universities and recognition of its programs by international bodies have provided students with the right knowledge and understanding of the international practices which have resulted in students performing exceedingly well in international and national competitions and certifications.<https://www.amity.edu/gurugram/global-exposure.aspx>

The objective of AUH is to promote inclusive practices for social justice and better


stakeholder relationships. The University promotes value-based education for inculcating social responsibility and good citizenry amongst its student community. The University's state-of-the-art infrastructure promotes active participation of the students in social, cultural and recreational activities which help develop various skills in students to foster holistic personal and professional development.

RESEARCH CONTRIBUTION

Amity university, Haryana is committed to supporting women in the field of research

and enhancing gender diversity. There are 10 R & D Projects and 7 consultancy projects. There is an impressive number of female authors who published their work in journals with high impact factor. Amity University has initiated an innovative research network connecting higher education and SDG 10. The University brings together and motivates all the faculties of the different schools under the AUH flagship to contribute towards enlightening of society on the negative impacts of gender discrimination.

a. Funded Projects with alignment to SDG 10

1.	<p>Project Title- "Capacity Building and Personality Development Program (PDP) for female undergraduate and Postgraduate students at AUH"</p> <p>PI : Dr. Rajesh Nair</p> <p>Funding Agency: National Commission for Women</p> <p>Sanctioned Amount: 150000</p>	
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a. Publications in alignment with SDG 10

1. Exploring Pathways of Digital Financial Inclusion to Improve Women's Economic Participation. 8th International Conference on Advanced Computing and Communication Systems, ICACCS 2022; 2022.
2. Negi DP, Abdul Azeez EP, Kaini A, Jabir P. 'Forced to Choose': Bacchara Women's Experiences in Sex Work. Sex Cult 2021;25(5):1620-1633.
3. Azeez E P A, Negi DP, Choudhary P. The Customary Practice of Nata Pratha in Rajasthan, India: Is It Freedom or Captivity for Women? J Divorce Remarriage 2021;62(2):127-143.
4. Azeez E P A, Negi DP, Rani A, A P SK. The impact of COVID-19 on migrant women workers in India. Eurasian Geogr Econ 2021;62(1):93-112.
5. Manrai R, Goel U, Yadav PD. Factors affecting adoption of digital payments by semi-rural Indian women: extension of UTAUT-2 with self-determination theory and perceived credibility. Aslib J Inf Manage 2021;73(6):814-838.

FACILITIES FOR DISABLED STUDENTS

The Amity University Haryana gives special attention to the needs and aspirations of the differently-abled (Divyang) students with focus to their complete integration into functioning and output of university. Appropriate physical infrastructures as well as friendly environment has been created for their efficient participation to learning and pan-academic activities. Following provisions are made for them:

Ramps: University buildings has been designed to integrate provision of ramps for hassle free and dignified movement of divyang students across all its building including hostels, mess, academic complex, sports ground and premises including faculty residences and library as well. To ensure safety during movement all stairways, steps and ramps have railings.

Toilets: There are separate toilets in all building and premices which are designed to be disabled friendly to cater need of the divyangs. They have broad door (1- 1.2m wide) and also have grab bars.

Lift /elevator: To ensure hassle free movement across multi-storey buildings, fully equipped elevator facility is available across all buildings. A special team is dedicated for operation and maintenance and to ensure safety for all elevators on 24*7 basis in the line of fire safety team. The number and location of elevators are fixed based upon footfall.

Wheelchairs: Wheelchairs availability is ensured in medical room as well as where it is required to cater need of emergency situation. Corridors are broad i.e., wheelchair enabled (width 1 to 1.5 m). Door width is suitable for wheelchair users in toilets and classrooms.

Scribes: University provides scribes facility on merit basis during examination as per university regulations to all bonafied cases as per request.

Braille facilities: University provides Braille facilities for Divyang students for hassle-free learning in the University

Medical Centre: The University has a well-equipped medical room with provision of qualified doctor, nurse and nursing assistants on 24*7 basis to cater medical need of university including divyangs. Apart from Medical centres special clinical centres for eye & vision, language and speech and psychological counselling are fully functional to add friendless to students in general and Divyang students in particular.

Signages: Adequate signages on the campus are placed at appropriate location which uses fluorescent colours for low vision persons. All laboratories, Central Instrumentation Facility (CIF) and elevators has proper printed display of DOs and DON'T in case of any emergency with list of contact numbers. All appropriate places including hostel, library and academic complex has display of Anti Ranging posters with contact number of Anti Ranging Committee and 24*7 helpline numbers for immediate reporting.



Fig: Provision of Lift and Elevators



Fig: Divyang friendly toilets
Fig: Provision of ramps and wheelchairs



ANTI DISCRIMINATION POLICIES

Regulations of Prevention of Sexual Harassment

Policy on Women Applications and Entry

Policy on Non-Discrimination Against Women

Non-Discrimination Policy of Transgenders

Policy to Protect those Reporting Discrimination

EVENTS ON REDUCED INEQUALITIES

Workshop On Laws of Women, Children etc

The Workshop “laws of women, children etc” was conducted on 16-feb-2022 by amity law school. the aim of creating awareness among villagers on the topics like Gender Discrimination, Domestic Violence, and Protection of Children from Sexual Offences, Female Feticide, Dowry Prohibition, Cruelty and Sexual Harassment at workplace.



Esteemed professors and legal panel to aware the villagers regarding laws of children and women.



Villagers actively participating in the workshop



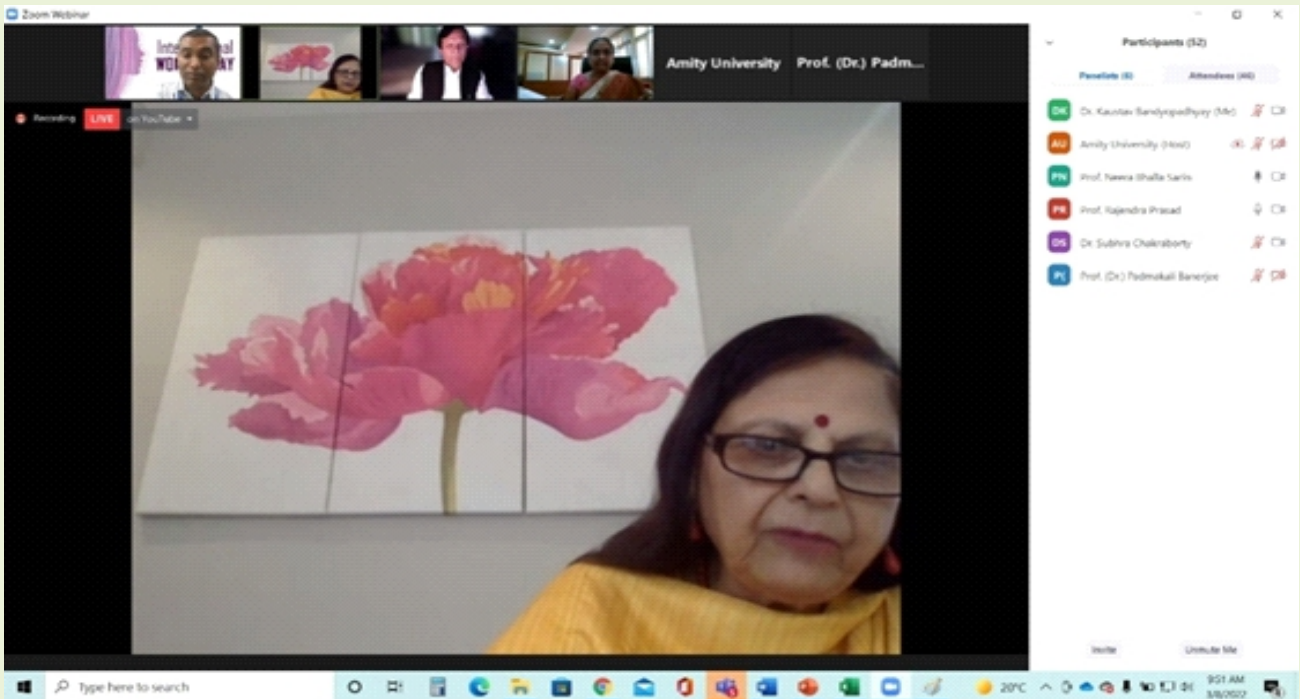
Legal panelist, Ms. Monika Yadav, delivering the lecture



Students from Amity Law School creating awareness among villagers

International Women's Day Celebration-08 March 2022

The Guest Lecture "International Women's Day celebration" was conducted on 08-Mar-2022 by Amity Institute of Biotechnology. The participant Students were encouraged when they listen from a renowned scientist about their journey and work.



Prof. Neera Bhalla Sarin addressing the event



Prof. Rajendra Prasad introducing the main speaker.



Dr. Subhra Chakraborty delivering the lecture.

Women's Day Anganwadi Visit-08 March 2022

The Society Outreach Programme "Women's Day Anganwadi Visit" was conducted on 08-Mar-2022 by Amity School of Architecture and Planning. Awarded women's of Panchgaon about Gender equality and women rights and how to create something useful out of waste material.



Faculties interacting with women and children in Anganwadi



Faculties and students from ASAP Department with Anganwadi

Panel Discussion on Gender Equality today for a sustainable tomorrow-08 March 2022

The Panel Discussion on "Gender Equality today for a sustainable tomorrow" was conducted on 08-Mar-2022 by Amity School of Liberal Arts. Participated students learnt To mark and celebrate the social, economic, cultural and political achievements of women and raise awareness about women's equality and accelerate gender parity.



Audience actively listening and participating in the discussion.



Students giving the performance on Gender Equality



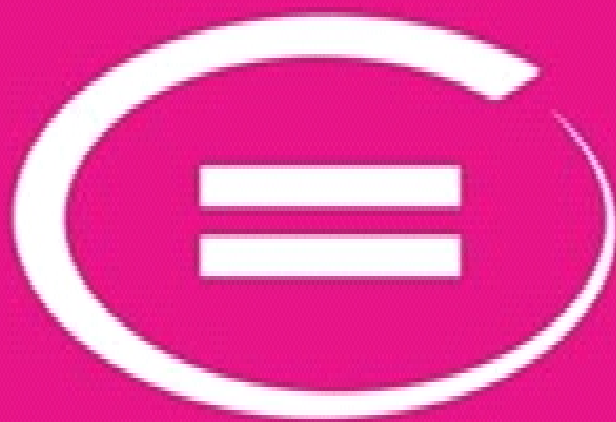
Esteemed Panellist admiring the student's performance



Panellist addressing the audience.

The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations.

10 REDUCED INEQUALITIES





AMITY
UNIVERSITY
— HARYANA —

NAAC 'A'
GRADE
ACCREDITED UNIVERSITY

REPORT ON SUSTAINABLE DEVELOPMENT GOAL

11 SUSTAINABLE CITIES
AND COMMUNITIES



YEAR 2021-22



PREAMBLE

The population of India is increasing constantly. There is a need to build modern, sustainable cities. Goal 11 is about using new, intelligent urban planning to create safe, affordable and resilient cities with green and culturally inspiring living conditions.

Amity University Haryana is committed to the United Nations Sustainability Development Goal (SDG) 11 to aim for Sustainable cities & Communities. This document summarizes some of the initiatives taken by the AUH towards addressing this.

In order to minimize any negative environmental impact of its operations, the University is conscious of its obligations to conserve the environment and adheres to the sustainable development concept. Since its establishment, the institution has ensured its growth is in keeping with the principles of environmental justice by caring for its resource base, which includes native vegetation, the water environment, and architectural design. As a result, the university regions' total output has improved relative to its surroundings. University buildings naturally incorporate passive green elements, such as sunken areas designed to lower summertime temperatures.

LEED PLATINUM CERTIFICATE

By maintaining the optimum equilibrium with the environment in all aspects of building, design, landscape design, water and energy conservation, operation, and maintenance, AUH has been recognized with the US Green Building Council's LEED Platinum Certificate. Holding the LEED Platinum Certificate, AUH is the FIRST university campus in India and the SECOND in Asia.



SUSTAINABLE TRANSPORT:

University encourages uses of public transport for daily commuting of day scholar and faculty and staff. A large number of buses are maintained, which ensure less carbon footprint for remotely located campus like AUH.

There is a "Pollution Under Control" certificate for each vehicle entering the university. The automated system of the solar energy system takes the reduction of carbon footprint into account. The "No Smoking Zone" policy is carefully followed on campus. The university utilizes VMware and embraces green computing and Electronic e-waste is disposed of by approved R2 certified vendors. N-Computing has honoured Amity with the award of "Go Green Innovation."

- (a) Bicycles: Students & Staff are encouraged to use cycles on campus for better environment
- (b) Public Transport: Buses for Students, Tempo Travelers for Faculty & Staff, Cars for University use and Ambulance are available.
- (c) Pedestrian Friendly Roads: the roads connecting the campus and within the campus itself are well maintained in terms of quality with lush green belts accompanying the roadsides.

ACCESS TO CAMPUS LIBRARY AND GREEN SPACES

The University has allowed access to open and green spaces such as Herbal Garden, Organic Farm and other facilities to the school students and local community.



सतत विकास की प्रक्रिया में विज्ञान और प्रौद्योगिकी की महती भूमिका

जागरण संवाददाता, गुरुग्राम: एमिटी विश्वविद्यालय हरियाणा के परिसर में सोमवार को जी-20 इंडिया प्रेसिडेंसी को लेकर एक व्याख्यान सत्र का आयोजन किया गया। नीति आयोग के सदस्य और जवाहरलाल नेहरू विश्वविद्यालय के कुलाधिपति डा. वीके सारस्वत ने कहा कि प्रभावी सतत विकास की प्रक्रिया में विज्ञान और प्रौद्योगिकी का विशेष महत्व है। इसे अपनाकर ही आगे कदम बढ़ाया जा सकता है। इस विषय में उन्होंने विशेष जानकारी भी प्रदान की।

एमिटी विश्वविद्यालय हरियाणा के वाइस चांसलर डा. पोबो शर्मा और प्रो. विकास मधुकर ने डा. सारस्वत के सत्र में आने पर स्वागत किया। डा. सारस्वत ने जलवायु परिवर्तन, वायु प्रदूषण, जल की कमी और उर्जा सुरक्षा जैसी चुनौतियों के स्थायी और नवीन समाधान पर बल दिया।



गुरुग्राम स्थित एमिटी विश्वविद्यालय हरियाणा के परिसर में सोमवार को जी-20 इंडिया प्रेसिडेंसी को लेकर एक व्याख्यान सत्र का आयोजन किया गया, इस दौरान उच्चस्वत विश्वविद्यालय के प्राध्यापक और अतिथि • सौजन्य : विश्वविद्यालय कार्यालय

इस मामले में भारत के समक्ष जो चुनौतियाँ हैं, उन्हें प्रभावी रूप से हल करने में विज्ञान और प्रौद्योगिकी का उचित उपयोग अत्यंत आवश्यक है। उन्होंने अक्षय ऊर्जा को बढ़ावा देना आवश्यक है। अक्षय ऊर्जा प्रौद्योगिकी

को दिशा में सौर, पवन ऊर्जा और इलेक्ट्रिक वाहनों को प्रोत्साहन देकर इस क्षेत्र में सकारात्मक कदम बढ़ाया जा सकता है। उन्होंने कहा कि देश में प्रौद्योगिकी नवाचार के क्षेत्र वैरिबक केंद्र बनने की अपार

क्षमता है। सत्र में स्टार्टअप को बढ़ावा देने पर भी बल दिया गया। इंडस्ट्री की आवश्यकता के अनुसार शिक्षा को व्यवस्था करना सरकार के लिए जरूरी है। डा. सारस्वत ने शिक्षा और अनुसंधान के लिए एक

- नीति आयोग के सदस्य डा. वीके सारस्वत ने एमिटी विश्वविद्यालय में दिया व्याख्यान
- विश्वविद्यालय में जी-20 इंडिया प्रेसिडेंसी व्याख्यान सत्र सोमवार को कराया गया

व्यापक, बहुविधयक दृष्टिकोण पर जोर दिया, जो सामाजिक, आर्थिक और पर्यावरणीय कारकों को ध्यान में रखता हो। एमिटी विश्वविद्यालय हरियाणा के वाइस चांसलर डा. पोबो शर्मा ने कहा कि भारत का सदियों पुराना वैदिक सनातन दर्शन वसुधैव कुटुम्बकम् को देता के युवा सार्थक बना रहे हैं। सत्र के दौरान बताया गया कि एमिटी विश्वविद्यालय ग्रीन कैम्पस है। यहां वर्षा जल संचयन प्रणाली और ठोस अपशिष्ट प्रबंधन और रैकिंग के बारे में बताया।

ARTS AND HERITAGE CONTRIBUTION

The community can view the art gallery and innovation gallery at the university. Through instruction and extracurricular activities, the Amity Centre for Indic Studies and Amity centre for Yoga seeks to instil Indian traditional values and principles in students and its stakeholders.



Students promote humanity through social work. The various students club at the University organizes large number of events promoting Art & Culture.

(<https://www.amity.edu/gurugram/student-club.aspx>)

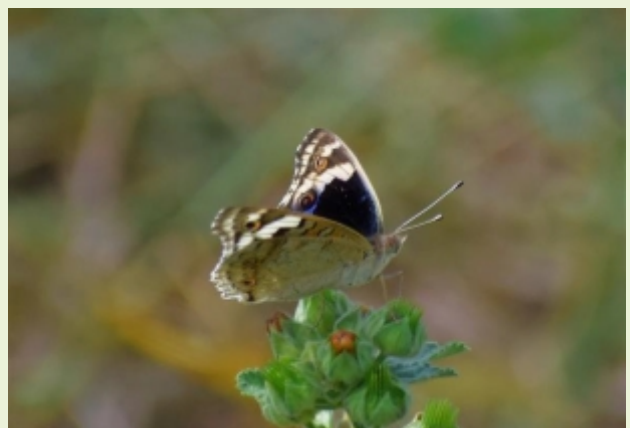
COURSES COVERING SDG

At Amity courses related to arts covering various aspects of Indian culture, values, and ethics. Students can pursue BA Fine Art and can opt for electives like Performing arts for the learning of music, various forms of dancing, Painting, fine art and Sanskrit as foreign Language.



SUSTAINABLE STAY OF BIRDS

The University makes certain that native plant species are adopted for landscaping and plantations. The abundance of birds and butterflies on the AUH campus attests to the campus's ecological soundness, which is mostly due to its natural plant patches. During the biodiversity survey, 146 birds and 40 butterflies were documented inside the campus. University conducts plantation drive on regular basis comprising native, fruit bearing and shady plants including Sahtut, Babool (Kikad), Lasoda, Akash, Neem, Alstonia, Neem, Shisham, Mango, Ficus, Amaltash, Kadamb, Chakresia, Tikoma, Pipal, Champa, Rabbis Palm, Ficus Panda, Kalandara, Yucca, Hamelia, Chandni, Cycus, Synghonium, Guava, Kinnow, Belpatra, Aavla, Jamun, Custurd Apple, Strawberry, Arjun, Jatroofa, Jacfruit, Grapes, Peach, Pear etc.



AFFORDABLE HOUSING FOR EMPLOYEES/STUDENTS

More than 2000 students reside in hostels provided by the university, while more than 200 families of academic and staff members stay on campus. Crèche facility is provided for faculty and students for their kids. Teachers and students have access to childcare facilities for their children. To improve the quality of life for the residents, a grocery store, fruit and vegetable store, dairy product store, and shopping centre have been created on campus. Staff, faculty members, wardens, and

students are all given designated parking spaces for their vehicles. University has cow shades with more than 40 cows, this milk is available for campus residents. Organic farming at the campus fields, made available vegetables, pulses, fruits to the residents.

University has six food cafeterias, mess and food trucks which serves food to students, residents. Remain food is served to nearby slum areas on the same day. Average quantity of food discarded or lost uneaten by campus catering services 40 kg/day





RESEARCH ON SUSTAINABLE CITIES AND COMMUNITIES

Amity conduct research and offer courses on sustainable urban planning and renewable energy. Amity has collaboration with local community, govt and businesses to create and promote sustainable solutions.

Listed below few research (Projects/Articles/ Patents/Trademark/Copyright) in the field of Sustainable cities and communities:

Project Title- "Nanotechnology for Healthcare and Environment - Exploring New Horizons" PI : Prof. Atul Thakur (ASAS Dept.) Funding Agency: FIST-2018 Sanctioned Amount: INR 84,00,000

High impact research:

- o Ghosh S., Yadav S., Devi A., Thomas T. Techno-economic understanding of Indian energy-storage market: A perspective on green materials-based supercapacitor technologies Renewable and Sustainable Energy Reviews
- o Kumar N, Koul R, Singh RC. Comparative analysis of ternary blends of renewable Diesel, diesel and ethanol with diesel. Sustainable Energy Technol Assess 2022;50
- o Srivastava A, Srivastava AK, Singh A, Singh P, Verma S, Vats M, et al. Biopolymers as renewable polymeric materials for sustainable development -

an overview. Polim 2022;67(5):185-196

- o Mehta K, Sharma S. Analyzing employee perspectives on the impact of COVID-19 on sustainable practices: a study of five-star hotels in India. Worldwide Hospitality and Tourism Themes 2021;13(5):636-645

Patent: Dr Sanjeev Sharma and Dr Pritam Babu Sharma from ASET, AUH, Manesar, "A solar energy and magnetic levitation-based copter" filled on 01-10-2021, Application No 202111044829

Copyright:

- o 4387/2022- CO/L Socio-cultural building- traditional folk art museum design by Mr Rahul Mehta, AID,AUH,

Manesar. Filed on 28-Feb-22

- o 7029/2022- CO/A Foldable furniture Dr Pallavi Sharma, Dr Naveena K, Amity School of Architecture and Planning, AUH Filed 1-Apr-22

Trademark: Atul Thakur, AINT, AUH, Manesar. Nano Breathe' 10-Aug-21 5082198 09-11-2021

Awards: Mr. Shubhansh Tiwari Environmentalist Award (Copy Attached) The Award was presented in October 2021 by the NSDA during the World Environment Summit 2021, held at India International Centre, New Delhi during 1-3 October 2021.

HAPPENINGS & EVNETS

Plantation Drive organised in Aug 2021 under the campaign of "MISSION GREEN", The Participants understood the importance of plantation and said that with this MISSION GREEN.

Webinar on Urban Flooding in Gurugram: Experiences and Initiatives, Sh. Subhash Yadav Head Urban Environment Division, GMDA and Sh. Sanjay Kumar District Town Planner Dept. of Town & Country Planning, Discussed how the society can deal with the problems of flooding and associated health & hygiene issues. Organised

Online webinar on "New Challenges and Opportunities in Aerosol Pollution Research: An Indian Perspective", organised in Sep 2021, the resource person were Dr. V.K. Soni, Head, EMRC, IMD, Prof. U.C. Kulshrestha, Dean, School of Environmental Sciences, JNU, Dr. Atul Kumar Srivastava, Principal Scientist,

IITM-Delhi Branch, Prof. Sagnik Dey, Chair & Associate Professor, IIT-D, Dr. Sachin Ghude and Dr. Gaurav Givardhan, Senior Scientists, IITM, Pune.

Panel Discussion on "Harnessing Opportunity of Green Energy in era of Climate Change" resource persons were Prof. (Dr.) Ashok Pandey, Distinguished Scientist CSIR-IITR, Prof. (Dr.) Sunil Khare, Chair Professor IIT Delhi, Dr. S. Venkat Mohan, Scientist, CSIR-IICT, Dr. Sachin Kumar Dy Director/Scientist, SSS-NIBE in Sep 2021

Workshop on "Catalytic reaction for a sustainable future" organised in Oct 2021 by Dr Anirban Das, Students learnt and understood the importance of Catalytic reactions and their use for sustainable future pattern. Also learnt to identify intermediates of reaction and use of these intermediates for sustainable development in chemistry.

Webinar on Exploring Building and Cities

Through Films, organised by Ar. Radha Dayal, Associate Professor Sushant School of Art and Architecture in Nov 2021, this event was to motivate students and faculty members for innovative ideas. The main purpose of the event is to provide an interactive online platform to the newly joined B.Plan and B. Arch. students for sharing their viewpoint on the lecture on film.

Panel discussion on Building Urban Resilience Through Advanced Technology, resource persons Dr Piyosh Rautela Executive Director Uttarakhand State Disaster Management

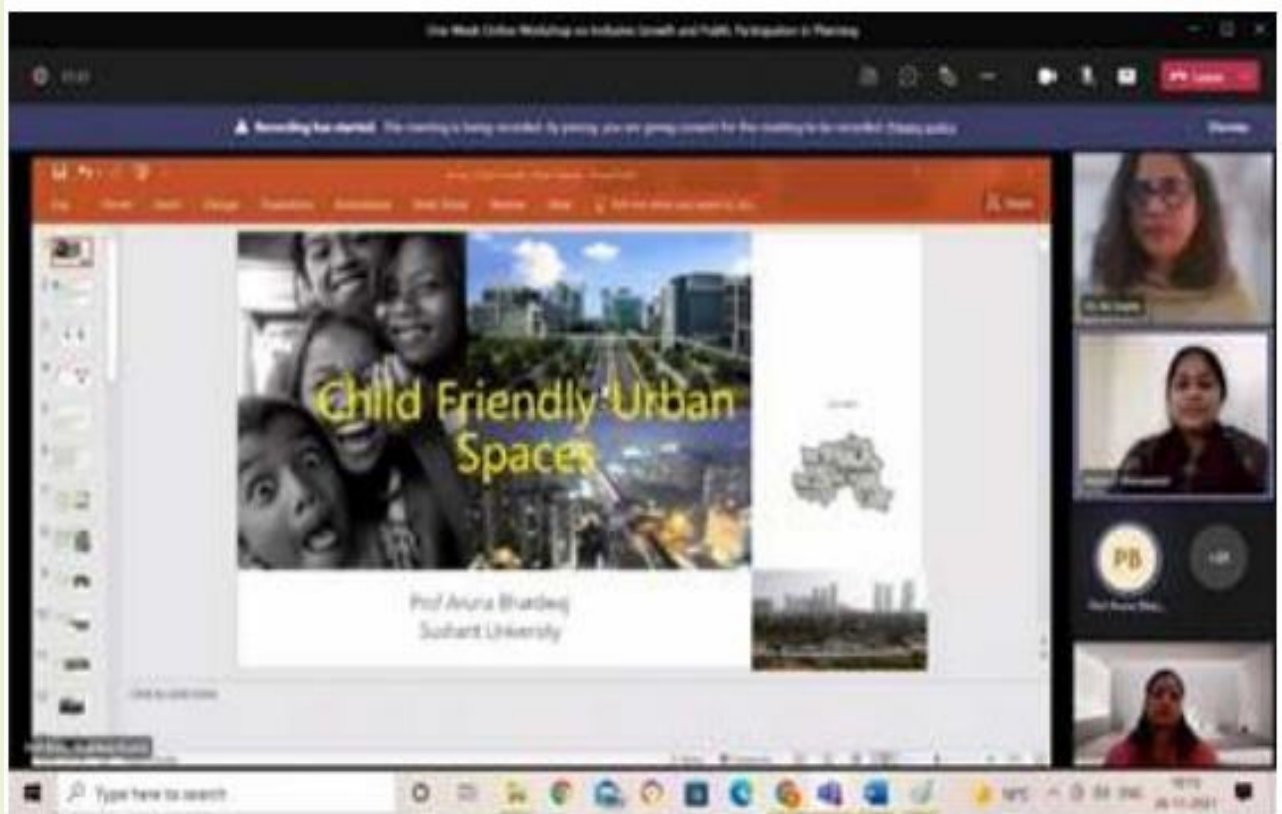
Authority, Dr Sudhakar Shukla Head, School of Geo-informatics & Scientist Remote Sensing Applications Centre, U.P., Lucknow, Dr. Sweta Baidya Consultant, NIDM Dr. Kopal Verma Junior Consultant Geography, Urban and Regional Planning NIDM Dr. P P Nageswara Rao Outstanding scientist ISRO (Rtd) organised during Jan 2022, To understand major disaster risks in urban setting of Indian Context and the need for advance technology .

To understand the integration and application of advanced technologies like drones, robotics, sensors, GIS, Virtual reality, digital twins, AI and Machine Learning used for building urban resilience.

Architectural and Interior Site Educational Tour organised at Sanskriti Museum Mehrauli Gurgaon road New delhi, Generated ideas of Research and Design projects for Interior Design, Also increased knowledge about new materials for Interior Design in March 2022

Amity University Model United Nation 2022, AUMUN aims to inculcate the spirit of debating and declamation and to provide motivation to students with knowledge and personal experiences of the Guests

Workshop on Sustainable Building Practices in April 2022, The purpose of the workshop was to develop a general understanding of basic building techniques amongst the students.



ONLINE WORKSHOP ON "INCLUSIVE GROWTH AND PUBLIC PARTICIPATION IN PLANNING" IN COLLABORATION WITH: INSTITUTE OF TOWN PLANNERS, INDIA 25 – 30TH NOVEMBER 2021

Amity School of Architecture and Planning, Amity University Gurugram in collaboration with the Institute of Town Planners India (Haryana Regional Chapter) has organized a workshop on the occasion of world town planning day 2021 on the topic 'Inclusive Growth and Public Participation in Planning'. It is a special day to recognize and promote the role of planning in creating liveable communities. Planning is a very important profession for the future as cities are getting more complex with rapid urbanization. The 72nd annual world town planning day is being celebrated to acknowledge the value of inclusive planning and public participation in shaping urban communities.

The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations.





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REPORT ON SUSTAINABLE DEVELOPMENT GOAL

12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



YEAR 2021-22



PREAMBLE

Amity University Haryana is committed to promote sustainable management practices and efficient use of resources to deliver responsible consumption and production patterns through its operations by implementing sustainable policies and practices.

WASTE MANAGEMENT PRACTICES

The University Waste Management Policy places a strong emphasis on recycling and reusing various waste types in order to save natural resources, safeguard public health and the environment, decrease toxicity, and minimise landfilling and/or incineration.

Amity University Haryana being an educational institution, the key operations do not significantly impact the environment. We need to dispose of less trash the less of it we create. Amity University Haryana is committed to producing as little waste as possible and recycling it by running it through a mechanism that makes the material reusable, following the UN mandate to establish the institution as a "live lab of sustainability." Numerous systems, such as those for collecting rainwater, treating wastewater and effluent, ensuring adequate drainage patterns, and many more, have been included in the university's growth plan from its inception. The waste generated in university is divided into three different types for their management and

disposal, which is as follow:

- (a) Solid Waste
- (b) Liquid Waste
- (c) e-waste and other hazardous waste

Solid Waste: The university's regular operations produce a variety of waste products. Paper, plastics, glass, metals, food items, etc. are all included. Every stage and source of trash is separated. Every block's administrative supervisor makes sure that each floor's garbage is collected at the scheduled times.

The block housekeeping staff in each floor collects the waste in the dustbins provided at each floor. The floor dustbins are dumped into the moveable dustbins or containers that are assigned to each block and transported to the university's disposal yard. The University has made contact with an approved vendor who picks up the garbage from the specified location, separates it, recycles it, and disposes of it in government-approved landfills.



Garbage Shed



Open Area Dustbin



Open Area Dustbin



Open Area Dustbin

The organic waste collected from farm house is disposed through bio gas production and composting infrastructure available at campus. The by-products are further utilized locally for heating and manure.



Liquid Waste: Liquid wastes generated by the University are of two types:

- (i) Sewage waste
- (ii) Laboratory, Laundry and Cafeteria effluent waste

The aforementioned garbage is processed by a network of ETPs (effluent treatment plants) and STPs (sewage treatment plants), which mix aerobic and anaerobic processes to handle organic waste before oxidation ponds are added. Following treatment, treated water is put through a simple

filtering process before being used again for a variety of applications, such as cooling plants, horticulture, agricultural irrigation, and toilet flushing. Laundry wastewater is handled by a separate treatment facility.

A committed and knowledgeable crew manages the upkeep and operation of the sewage and effluent treatment plant, ensuring the effective operation of the treatment unit. Groundwater is replenished with purified water throughout the winter and wet seasons.

The following are the details of STPs and ETPs installed in the university

STP	Location	Capacity in Litters/day	Type
STP1	Near Faculty Flats	4,50,000	Aerobic
STP2	Near Faculty Flats	4,50,000	Anaerobic

ETP	Location	Capacity in Litters/day	Type
ETP1	Near Faculty Flats	50,000	Kitchen
ETP2	Near Faculty Flats	20,000	Laundry

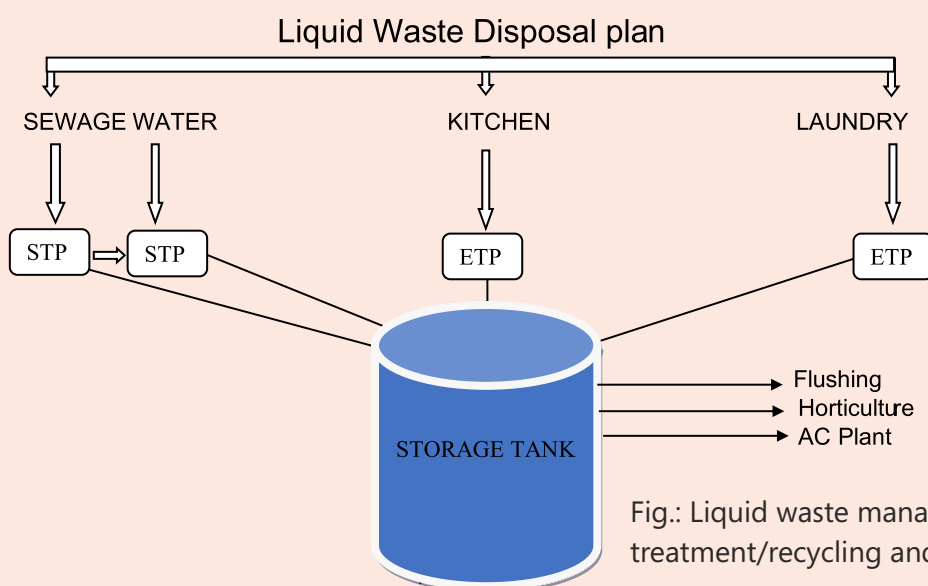


Fig.: Liquid waste management plan including treatment/recycling and reuse

e-waste: Desktop, Printer, Camera, Wi-fi devices, used Blank Cartridges, Speakers, Mouse, Keyboard, UPS, Projector Screen and Biometric Machine etc. are recycled properly. The university keeps track of every electronic device provided by its IT departments, ensures that it is operating at peak efficiency, and disposes of it after its

useful life. The buy-back option is used for technological upgrades rather than purchasing a new computer. The authorised suppliers listed below are responsible for disposing of the electronic trash that is created from hardware that cannot be recycled or reused.



ETP



ETP Laundry Unit



Pump Room



Oxidation Pond

Fig.: Wastewater treatment

TEACHING & LEARNINGS

The University is committed to promoting sustainable consumption and production through several modules contained within courses delivered.

Programme Name	Level	URL
MBA (Sustainable Management)	Post Graduate	https://www.amity.edu/gurugram/mba-sustainability-management
Executive MBA (Sustainable Management)	Post Graduate	https://www.amity.edu/gurugram/executive-mba-sustainability-management
M.Tech. (Solar & Alternate Energy)	Post Graduate	https://www.amity.edu/gurugram/mtech-solar-and-alternate-energy
M.Sc. (Renewable Energy)	Post Graduate	https://www.amity.edu/gurugram/msc-renewable-energy
M.Tech (Atmospheric Technology and Climate Management)	Post Graduate	https://www.amity.edu/gurugram/mtech-atmospheric-technology-and-climate-management
M.Sc. (Environmental Sciences and Management)	Post Graduate	https://www.amity.edu/gurugram/msc-environmental-sciences-and-management
B.Sc. (Hons) - https://www.amity.edu/gurugram/bsc-Earth-Sciences	Under Graduate	hons-earth-sciences
Ph.D. (Earth and Environmental Sciences)	PhD	https://www.amity.edu/gurugram/phd-earth-and-environmental-sciences

A) Minor Specialization Elective Track offer to all Under Graduate Programmes

Sl.No.	Track with details of courses
1.	<p>Climate Science</p> <p>Semester 1- AST2151- Basics of Climate Science Semester 2- AST2251- Introduction to Earth System Science Semester 3- AST2351- Cloud Microphysics and Chemistry Semester 4- AST2451-Climate Change: Impact, Vulnerability and Adaption Semester 5- AST2551- Primer of Oceanography Semester 6- AST2651- Fundamentals of Climate Variability and Modeling</p>
2.	<p>Disaster Management & Sustainable Built Environment</p> <p>Semester 1-DSM2151-Introduction to Disaster Management Semester 2-DSM2251-Resilience Building for Built Environment Semester 3-DSM2351-Emergency Management Semester 4-DSM2451-Rehabilitation Reconstruction and Recovery Semester 5-DSM2551-Climate Change Adaptations and Sustainable Development Semester 6-DSM2651-Geoinformatics in Disaster Management</p>
3.	<p>Dietetics & Nutrition</p> <p>Semester 1-DAN2151-Principles of Nutrition Semester 2-DAN2251-Family Meal Management Semester 3-DAN2351-Basics Dietetics Semester 4-DAN2451-Advanced Dietetics Semester 5-DAN2551-Community Nutrition Semester 6-DAN2651-Food Chemistry</p>
4.	<p>Environmental Management</p> <p>Semester 1- ENV2151- Environmental Studies-I* Semester 2- ENV2251- Environmental Studies-II* Semester 3- ENV2351-Environmental Pollution and Waste Management Semester 4- ENV2451-Environmental Management and Industrial Safety Semester 5- ENV2551-Environmental Economics and Globalization Semester 6- ENV2651-Sustainable Development Practices</p>
5.	<p>Entrepreneurship</p> <p>Semester 1-MGT2152-Orientation Programme in Entrepreneurship Semester2-MGT2252-Exploring Business Opportunity Semester 3-MGT2352-Developing a Business Model Semester 4-MGT2452-Translating Business Model into Startup Semester 5-MGT2552-Advanced Programme in Entrepreneurship: Growth Semester 6-MGT2652-Advanced Programme in Entrepreneurship: Expansion</p>

Sl.No.	Track with details of courses
6.	<p>Environmental Health & Climate</p> <p>Semester 1-AST2152-Linkages between Environment and Health Semester 2-AST2252-Climate Change and Implications on Public Health Semester 3-AST2352-Diseases in Contemporary Society Semester 4-AST2452-Air, Water and Soil Pollution,Environmental Health Professions Semester 5-AST2552-Ground-based and Satellite Remote Sensing Semester 6-AST2652-Instrumentation Lab</p>
7.	<p>Polymer Technology</p> <p>Semester 1-PTE2151- Polymerization Semester 2-PTE2251-Waste Plastic Recycling Semester 3-PTE2351-Polymer Technology Semester 4-PTE2451- Rubber &Tyre Technology Semester 5-PTE2551-Polymeric Nano Composites Semester 6-PTE2651-Bio-Medical Plastics</p>
8.	<p>Renewable Energy</p> <p>Semester 1-SAE2151- Renewable Energy Conversion Systems Semester 2-SAE2251- Introduction to Solar Thermal Engineering Semester 3-SAE2351- Introduction to Solar Photovoltaic Semester 4-SAE2451-Energy from Wastes Semester 5-SAE2551- Renewable Energy for Heat Applications Semester 6-SAE2651- Energy Audit and Energy Management</p>

PLASTIC FREE CAMPUS

The campus is trying its best to minimise the use of plastic. In this concern the stores and even the food stalls are motivated to use paper and jute bags for packing.

RESEARCH & PUBLICATIONS

High impact research

- Maheshwari N, Thakur IS, Srivastava S. Role of carbon-dioxide sequestering bacteria for clean air environment and prospective production of biomaterials: a sustainable approach. Environ Sci Pollut Res 2022;29(26):38950- 38971
- Singh M, Dhiman S, Debnath N, Das S. Magnetic nanoparticles and their application in sustainable environment. Sustainable Nanotechnology for Environmental Remediation; 2022. p.457-483

- A Game Theory based Attacker Defender Model for IDS in Cloud Security. Proceedings of the 2022 9th International Conference on Computing for Sustainable Global Development, INDIACom 2022; 2022

Patent

- Hon'ble Founder President Dr. Ashok K. Chauhan, Dr. P. B. Sharma, Dr. Indu Shekhar, Dr. Shalini Bhaskar Bajaj, Dr. Manoj Kumar Pandey and Dr. W.

Selvamurthy AUH, Gurgaon campus A system for saccharification, gasification and upgradation of lignocellulose waste for production of green energy 30-06-2022 202211037786

- Hon'ble Founder President Dr. Ashok K. Chauhan, Dr. P. B. Sharma, Dr. Sanjeev Sharma, Dr. Shalini Bhaskar Bajaj, and Dr. W.Selvamurthy, AUH, Gurgaon 'An electrode-based green coal bed gasifier system' 07-07-2022 202211038879

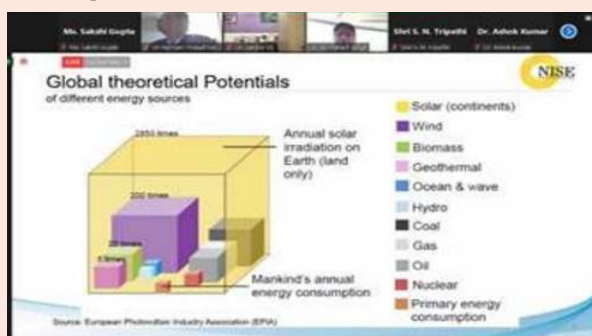
HAPPENINGS & EVENTS

- Workshop on Urban Renewal and Conservation, organised on July 2021, Resouceperson Ar. Abhishek Jain Principal Architect Urban Regeneration Shahjahanabadi Foundation, Delhi, Students learnt urban renewal /redevelopment approaches at old city and historical sites in the context of having better access to services and sustainable urban development
- Guest Lecture on Solar operated direct energy conversion systems for power generation options, in sep 2021 by Dr Ravita Lamba Asst. Prof. Solar Photovoltaics & Thermoelectric systems MNIT,Jaipur, Rajasthan, To motivate and guide students about the new and innovative options of power generation in today's era.
- FDP on Production of Creative Sculpture Using Waste Materials; for Skill Enhancement by Mr. Animesh Mahata Sculpture Visual Artist Asst. Professor,

Amity School of Fine Arts, This FDP explored variety of mediums and techniques, while developing critical thinking and problem-solving skills.

- Workshop on E-Waste & Circularity, in May 2022, Mrs. Panni Verma Project Manager Organizational Development, Project Initiation and Implementation, Training Program Design, Communication & People Orientation, etc. SAAHAS, Ms. Deepika Chhetri Project Coordinator natural resources SAAHAS, Mr. Shivam Rawat Project Coordinator zero-waste sustainable solutions SAAHAS

Example:



WEBINAR ON GREEN TECHNOLOGIES FOR MITIGATION OF GLOBAL WARMING & CLIMATE CHANGE

4TH APRIL 2022

The Department of Civil Engineering, Amity School of Engineering Department (ASET) coordinated a Webinar on "Green Technologies for mitigation of Global Warming & Climate Change" The theme was on increasing trend of average temperature of the air near Earth's surface, the threat of global warming appears to be true. Research and Scientific studies have revealed that the global atmosphere concentrations of Carbon Dioxide (CO₂),

Methane (CH₄) and Nitrous Oxide (N₂O) have increased due to anthropogenic activities. These gases are called Green House Gases (GHGs) responsible for increasing global average temperature and causes adverse effects on ecosystem. The coordinators were Dr HRP Yadav, Professor and Head, Civil Dept. Ms Sakshi Gupta, Assistant Professor and Dr Tanvi Gupta, Assistant Professor, Department of Civil Engineering, ASET.



The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations





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REPORT ON SUSTAINABLE DEVELOPMENT GOAL



YEAR 2021-22



I. PREAMBLE

To address challenges of environment and development, UN adopted 'Agenda 2030' to ensure Sustainable Development Goals (SDGs) in line of "quadruple helix model". It entails linkages between government, academia, society, and business. An approach has been devised to develop academic institutions and new universities as living laboratories for sustainability. Amity University Haryana is finest example of such new university which is developing as living laboratory of sustainability by adopting a multipronged approach including Nature Just Development, Green Building, Renewable Energy consumption, sustainability education, 3Rs approach of consumption and many more.

Amity University Haryana is strongly committed to the goal of environmental sustainability and playing an impactful role to ensure compliance in terms of SDGs. The quality and scale of Amity University Haryana's efforts to transform it into a sustainable campus have been duly recognized as India's first University and Asia's 2nd to earn LEED Platinum Certificate from US Green Building Council and among top 200 global campuses in previous Impact Ranking. The University is meaningfully contributing to SDG – 13 i.e., Climate Action, through the following important measures and frameworks:

- Nature Just Development plan of the University to make it a Green Campus
- Low Carbon energy transformation

- Incorporating Environmental and Sustainability components in imparting education
- Integrating climate change measures into university policies, strategies, and planning
- Collaborative education and research to address environmental and climate change impacts, adaptation, impact reduction, and mitigation.
- Promoting environmental consciousness and practices through various outreach programs to the local and regional communities, thus benefiting the society and nation

II. TEACHING & LEARNINGS

Environmental and sustainability education

SDG13-Climate Action; is a critical goal among other goals as it is networked with many of them. Amity University Haryana is very much impactful to integrate the climate action perspective into its academic programs, research, and extension activities. University has a nodal institute i.e. Amity School of Earth and Environmental Science that design, formulate and implement academic programs, course work, and campus-based projects in the area of Environment and sustainability along with other institutes notably the Department of Renewable Energy, Architecture & Planning, Business School. A core course of 'Environmental Studies' for

all UG programs provides a basic understanding of environment and sustainability including the 'climate change and SDGs component' in their very first year, while minor degree programs like environmental management, Climate Science, Renewable Energy provide scope for more specialization, while training in the area of green building (LEED Lab; prestigious capacity building program in collaboration with USGBC and GBCI) and renewable energy (Suryamitra; Skilling programme in solar energy fabrication for rural youth funded by Government of India) further skill up students for green jobs in the sustainability sector. Several campus-based

study engagements like Social Awareness Programme (SAP), Biodiversity Survey, Plantation, and cleaning drives give SDGs mandate and compliance across students.

Recently in collaboration with Presidio Graduate School university offers MBA in Sustainability Management; a unique program in the Indian education landscape with the aim to mainstream sustainability education in professional programs. As per programme and course outcome mapping, all programs and their course work has been mapped with current requirement where environment and sustainability are also the parameters.

Programes	School/Institute
M.Tech (Solar & Alternate Energy)	Amity School of Applied Sciences
M.Sc. (Renewable Energy)	
B.Sc. (Hons) - Earth Sciences	Amity School of Earth and Environmental Sciences
M.Sc. - Environmental Sciences & Management	
B.Tech (Civil Engineering)	Amity School of Engineering and Technology
M.Tech (Civil Engineering)	
Bachelor of Architecture #	Amity School of Architecture and Planning
Bachelor of Planning	
Master of Planning (Urban and Regional)	

III. RESEARCH CONTRIBUTION

Environmental Quality Monitoring

Emission: University has robust networking with government and national and international research agencies and developed robust monitoring facilities for environmental parameters including Air Quality along with Green House Gases (GHGs) through 24*7 online Air Pollution monitoring and display (SAFAR; Government of India SAFAR program) and Optical based monitoring of Aerosols & other parameters (i.e. AeroNet; NASA, USA Network) to understand climate-related issues. The data set generated through continuous monitoring is shared with these agencies where Amity University Haryana is demarcated as field network stations spread across India for SAFAR in India and the globe for NASA Aeronet.

Ecological: Apart from GHGs and Air quality monitoring, the university also conducts monitoring of the ecological health of the landscape where the university is located. University's Physical landscape is developing into an ecologically healthy system, which is more climate adaptive. Extensive plantation of notable native vegetation (Sahtut, Kikad, Lasoda, Neem, Ficus, Amaltash, Chakresia, Tikoma, Pipal along with fruit and nut bearing trees) ensure biodiversity intact and ensure critical ecosystem services including groundwater recharge. Scope of natural vegetation and native species plantation along with nature just development harbours 146 types of bird species and 40 butterfly species. In collaboration with BNHS and ebird; a global citizen science program of bird, regular monitoring is in practice.

a. Few of the high impact publications in alignment with SDG 13 are:

Name of Author	Title of the paper	Title of Journal	Year	IF
Ghosh S., Yadav S., Devi A., Thomas T.	Techno-economic understanding of Indian energy-storage market: A perspective on green materials-based supercapacitor technologies	Renewable and Sustainable Energy Reviews	2022	14.982
Prof. Atul Thakur, Prof. Preeti Thakur	Visible light assisted photocatalytic degradation of methylene blue dye using Ni doped Co-Zn nanoferrites	Advances in Nano Research	2022	11.43

b. Funded Projects with alignment to SDG 13

<p>Project Title: "Nanotechnology for Healthcare and Environment - Exploring New Horizons" PI : Prof. AK Yadav (ASAS Dept.) Funding Agency: FIST-2018 Sanctioned Amount: 8400000</p>	
<p>Project Title: "A nanobionic approach for enhancement of plant photosynthesis and growth by augmenting chloroplast mediated photon absorption" PI : Dr. Sumistha Das & Dr. Nitai Debnath Funding Agency: DST-Nanomission Sanctioned Amount: 4550000</p>	
<p>Project Title: "Fabrication of Realtime in planta biosensors for presymptomatic detection of heavy metal toxicity" PI : Dr. Ranjita Ghosh & Dr. Kaustav Bandyopadhyay Funding Agency: DBT, Sanctioned Amount: 6500000 (Proposed)</p>	

c. Copyrights that comply with SDSG 13

Diary No	Title	Name	Filing date
7029/2022-CO/A	Foldable furniture	Pallavi Sharma, Naveena K, Amity School of Architecture and Planning, AUH	1-Apr-22
16462/2022-CO/L	Design prototype for automated segregation of inorganic solid waste components	Dr. Naveen BP, Mohammed Yassen, Department of Civil Engineering, AUH, Manesar Campus	2-Aug-22

d. Publications in alignment with SDG 13

1. Punia P, Bharti MK, Dhar R, Thakur P, Thakur A. Recent Advances in Detection and Removal of Heavy Metals from Contaminated Water. *ChemBioEng Rev* 2022;9(4):351-369.
2. Ghosh S, Yadav S, Devi A, Thomas T. Techno-economic understanding of Indian energy-storage market: A perspective on green materials-based supercapacitor technologies. *Renewable Sustainable Energy Rev* 2022;161.
3. Naveen BP, Fard MK. Estimation of Methane Emission and Electricity Generation Potential from Mavallipura Landfill Site, India. *Iran J Sci Tech Trans Civ Eng* 2022;46(3):2531-2541.
4. Maheshwari N, Thakur IS, Srivastava S. Role of carbon-dioxide sequestering bacteria for clean air environment and prospective production of biomaterials: a sustainable approach. *Environ Sci Pollut Res* 2022;29(26):38950-38971.
5. Yadav R, Chundawat TS, Surolia PK, Vaya D. Photocatalytic degradation of textile dyes using β -CD-CuO/ZnO nanocomposite. *J Phys Chem Solids* 2022;165.
6. Kotnala RK, Das R, Shah J, Sharma S, Sharma C, Sharma PB. Red mud industrial waste translated into green electricity production by innovating an ingenious process based on Hydroelectric Cell. *J Environ Chem Eng* 2022;10(2).
7. Kumar N, Koul R, Singh RC. Comparative analysis of ternary blends of renewable Diesel, diesel and ethanol with diesel. *Sustainable Energy Technol Assess* 2022;50.
8. Bhatia S, Al-Harrasi A, Behl T, Anwer MK, Ahmed MM, Mittal V, et al. Unravelling the photoprotective effects of freshwater alga *Nostoc commune* Vaucher ex Bornet et Flahault against ultraviolet radiations. *Environ Sci Pollut Res* 2022;29(10): 14380-14392.
9. Srivastava A, Srivastava AK, Singh A, Singh P, Verma S, Vats M, et al. Biopolymers as renewable polymeric materials for sustainable development - an overview. *Polim* 2022;67(5):185-196.
10. Thakur A, Punia P, Dhar R, Aggarwal RK, Thakur P. Separation of cadmium and chromium heavy metals from industrial wastewater by using Ni-Zn nanoferrites. *Adv Nano Res* 2022;12(5):457-465.

e. List of PhD recipients whose theses are in alignment with SDG 13

Degree Sl. No.	Name of Scholar	Enrolment No	Programme	Date of issue of Notification	Thesis Title	Year of Completion
Ph.D / 0075	Manoj Kumar Mishra	A50030316010	Doctor of Philosophy (Management)	05.01.2021	Developing Innovation Maturity Model for Automotive Component Sector in India	2021
Ph.D / 0077	Sonal Dahiya	A50136414007	Doctor of Philosophy (Engineering)	02.02.2021	A Petri Net Based Approach for Modeling and Simulation of Energy Consumption in Wireless Sensor Networks	2021
Ph.D / 0078	Veeranna Channashettar	A51661014005	Doctor of Philosophy (Environmental Sciences)	24.02.2021	Isolation and characterization of biosurfactant producing bacteria for remediation of petroleum hydrocarbon	2021
Ph.D / 0088	Kudzanayi Chiteka	A501115416007	Doctor of Philosophy (Engineering)	25.03.2021	Installation and Cleaning Cycle Optimisation for Fouling Mitigation in Non-Tracking Commercial Solar PV Plants	2021
Ph.D / 0100	Yashpal Singh Sindhu	A50815216001	Doctor of Philosophy (Law)	05.08.2021	Effect of Corporate Social Responsibility on Human Rights of Stakeholders and Sustainability of Corporates in India	2021

IV. UNIVERSITY INFRASTRUCTURE

Amity University Haryana: A Green Campus

Amity University Haryana is in lap of Aravalli range; adopted a 'nature just' development approach without destroying its natural terrain, native vegetation, and natural drainage that ensure maximum groundwater recharge. Within a decade of its formation, the AUH campus is converted into the green hub in this semi-arid region. Amity University Haryana campus is developed in line with nature just development by integrating plans of green building design and regional building codes to minimize consumption and emission scenario.

Based upon innovation in design (passive and active building plan including innovative regional aspects like large sunken courts to minimize heat regime in summer and winter), location & transport (Landscape is developed as per natural gradient and drainage as well as provision of mass transport), water efficiency (Rainwater harvesting & recharge through natural drainage, complete water treatment and reuse in grey water, water recharge and irrigation) energy & atmosphere (Phase wise transition from grid based energy to in-house solar energy plants and efficient LED-based lighting system), material & resources, Amity University Haryana building is accredited with LEED Platinum (highest rating for green building); 1st university building in India and 2nd only in Asia in operation and maintenance category having many

passive features that minimize heat regime, reduce energy consumption and efficient utilization of water. University maintains efficient waste management system along with natural vegetation to provide buffer to carbon emission to reduce overall environmental footprint of university operations.

V. GOVERNANCE AND MANDATES

Low Carbon energy transformation

Reduction in university carbon footprint is prime action point for climate action. Amity University Haryana is committed to drive low carbon scenario in all its operations including academic delivery, administration, and maintenance through rationalizing direct and indirect emissions. To ensure low carbon transformation university is mandated by a holistic 'Environmental and Sustainability Policy', to ensure carbon neutrality in phase wise manner. The target is set to achieve carbon neutrality which includes direct emission, indirect emission through purchased energy as well a few items from indirect sources in a phase-wise manner by 2028.

Direct energy consumption through grid electricity is a major portion of energy use, which is under substitution with solar PV and at present 17% of energy is procured through in-house solar PV plants, which is substantial addition in comparison to last year when solar energy contribution was around one-tenth to total energy need of the campus. In-house solar energy systems of 500 kWp of solar rooftop on academic

blocks and a ground solar PV plant, were installed and maintained by CleanMax Solar company under 'OpenX model' commonly known as 'pay as you go' model, which operates with zero breakdowns and generates Solar energy round the year. All the buildings have multiple windows and glass façades increasing the usage of natural light. 51.1 % of lights are LED thus reducing energy consumption in buildings. Over a period of 5 years, it is planned to replace all the lights with LED. To reduce air conditioning energy load during peak seasons, all buildings are provided with sunken areas, which reduces the heat maxima substantially during summer as well as in winter.

At present Amity University Haryana substitutes its more than 10% of its energy consumption by low carbon energy mainly from solar PV installed at rooftop and ground plats. University also strives to valorise its biowaste including kitchen and dairy waste into green energy. At present a pilot scale bio-gas plant is operational for demonstration purpose with vision to utilize its full potential as per renewable energy policy.

Indirect carbon neutrality (Partial scope III) is also in the agenda and the university works on paperless mode for all possible operations including day to communication, HR management (including leave) through in-house and external Enterprise Resource Planning (ERP) platforms like Amizone and TCSiON. University encourages the use of public transport/university buses and car pool for daily commuting of day scholars, faculty, and staff.

Policy support and climate action

Through the Environmental and Sustainability Policy and Climate Action Plan Amity University Haryana is committed to ensuring Campus Carbon Neutrality by 2028 through a series of action points including the reduction of grid energy dependence by switching to Solar PV. The policy covers major areas of climate action and adaptation and provides an opportunity for the inclusion of appropriate aspects which help to achieve carbon neutrality by 2028. The university's Carbon Neutrality goal covers scope 1 and scope 2 completely while scope 3 partially. Scope 3 covers partial as per the ranking framework which includes direct emissions, indirect emissions from purchased electricity (which happens to be a major source of carbon emissions), and a few indirect emissions including travel, waste and water management, and material procurements. University is functioning in compliance with the Environmental and Sustainability Policy having clear guidelines of the climate action working plan, which addresses local (i.e. rainwater harvesting plan to reduce water footprint), regional (i.e. passive building design to overcome heat regime in the semi-arid region) and global (i.e. shifting to low carbon-based energy sources to reduce the carbon footprint of campus) climate concerns.

University is performing better in terms of wastewater treatment (in-house wastewater and sewage treatment, WTP, and STP), solar energy installation, rainwater harvesting, waste management, material procurement

(paperless office and e-governance), transport (community transport for faculty and students). University operates in compliance with the Environmental and Sustainability Policy having clear guidelines of climate action working plan (Evidence 1), which addresses local (i.e. rainwater harvesting plan to reduce water footprint), regional (i.e. passive building design to overcome heat regime in semi-arid region) and global (i.e. shifting to low carbon-based energy sources to reduce carbon footprint of campus) climate concerns. AUH execution of sustainability action plan is dually reflected in university green building ranking (LEED Lab Platinum), NAAC 'A' grade accreditation.

VI. EVENTS AND SOCIAL OUTREACH

Capacity building and Skilling

University conducts LEED Lab program for in-house students in area of green Building design and framework in collaboration with USGBC and GBCI for students of Architecture, Planning, Engineering, and Environmental Science.

Amity University Haryana conducts Suryamitra Skill Development Program, funded by the Ministry of New and Renewable Energy for local community students who have completed ITI or a diploma in electrical, electronic, or related fields to create skilled manpower required for the government's ambitious NDC in solar energy sector by 2030 as Paris Climate Change.

Amity University Haryana houses a dedicated 'AYUSH-Amity Herbal and Medicinal Plant Distribution Centre' in collaboration with Ministry of Ayush, Government of India. The center produces herbal plants and local medicines with a view to create public awareness and boost the scientific efforts to make India, a world leader in Ayurvedic, Unani, Naturopathy, Homeopathic and Siddha health care. This conducts capacity building and skilling programmes for the benefit of local farmers and provides vast opportunities for agricultural growth.

Climate disaster cooperation: Amity University Haryana strives to function as live 'laboratory of sustainability and incorporates all possible sustainability measures in its action including awareness and capacity building for climate change-related disasters. University is developing robust academic networking with agencies working on climate disasters at regional and global levels and conducted several knowledge sessions, and training programs of regional and global climate disaster issues with the National Institute of Disaster Management (NIDM), the Government of Haryana and the United Nations University on the urban flood, school safety, disaster mitigation etc. Several faculty members conducted sessions on disaster mitigation at NIDM and other locations, notably the capacity building of schoolteachers for protection from natural calamities at school. Notable engagement with local

community and stakeholders in terms of capacity building exercises are following:

1. Teachers training programme on 'Safety and Security at School Level' Samagra Shiksha' District Hisar, Haryana 24-25 January 2022 (Resource person: Dr. Kushagra Rajendra)
2. Invited lecture on Youth and decision making in era of Climate change" at webinar "Youth Empowerment for Climate Change Resilience, National Institute of Disaster Management (NIDM), and Rajiv Gandhi National Institute of Youth Development Government of India, August 20, 2021. (Resource person: Dr. Kushagra Rajendra)
3. Invited speaker on "Rivers and its people: Lessons from Floodplains, Bihar" at online training programme on "Geo-Hazard Analysis and Management", Organized by National Institute of Disaster Management (NIDM), and University of Allahabad, 26- 28 July 2021 (Resource person: Dr. Kushagra Rajendra)

University also organized several such capacity building programmes, details of some of the programmes are given below:

1. International workshop in collaboration with United Nations University on "Scanning the Horizon of Climate Change – Water Crisis - Disasters-Conflicts and Migration Nexus" 21-25 September, 2021.

2. Workshop on "Urban Flooding in Gurugram: Experiences and Initiatives" organized in collaboration with National Institute of Disaster Management (NIDM), Ministry of Home Affairs, Govt of India at Amity University Haryana, 6 September, 2023.

Tree Plantation Drive: University maintains natural vegetation-dominated green cover in the campus. As per land use planning 2/3rd area is the green cover which includes the open area (lawn, farming land etc) and tree cover while 1/3rd is the build-up area. Tree plantations in collaboration with NGOs are the most celebrated activity here in Amity on every occasion. The two-tier plantation has been done along the campus boundary. University also maintains all support to sustain the plantation including a nursery, a functional greenhouse, a composting unit to provide organic manure, and trained manpower to carry out horticultural work. In collaboration with 'Green Mission,' an NGO two-stage massive plantation drive was conducted with the aim to increase tree cover and increase the carbon sink potential.

WORKSHOP

The Workshop "Urban Renewal and Conservation" was conducted on 1-3 July 2021 by Amity School of Architecture and Planning. The participants learnt urban renewal/redevelopment approaches at old city and historical sites in the context of having better access to services and sustainable urban development.

ORIENTATION PROGRAM

- The Orientation Programme “New Challenges and Opportunities in Aerosol Pollution Research: An Indian Perspective” was conducted on 20-24 Sep 2021 by (ACOAST) Amity Centre For Ocean-atmospheric Science And Technology The participants learnt and gained knowledge about the utilization of satellite AOD data for health hazard studies.
- The Orientation Programme “New Challenges and Opportunities in Aerosol Pollution Research: An Indian Perspective” was conducted on 21-Sep 2021 by (ASET) Amity Science Engineering and Technology The participants learnt To motivate and guide students about the new and innovative options of power generation in today’s era.

PANEL DISCUSSION

The Pannel Discussion “Harnessing Opportunity of Green Energy in era of Climate Change” was conducted on 24-Sep-2021 by (ASEES) Amity School of Earth and Environmental Sciences. The participants learnt and understood the process of generating energy that produces no greenhouse gas emissions from fossil fuels and reduces some types of air pollution.

WEBINAR

The Webinar “Innovation Strategy for Universities to Create Opportunities of Entrepreneurship in Mitigating Environmental Issues” was conducted on 02-Dec-2021 by

(ASEES) Amity School of Earth and Environmental Sciences. The participants learnt Helps in spreading awareness about innovative ways of entrepreneurship by motivation students for research and development.

WEBINAR

The Webinar “Earth Day 2022” was conducted on 22-Apr-2022 by (ASEES) Amity School of Earth and Environmental Sciences. The participants learnt Helped the students to understand how human activities are degrading the earth and about the how helpful concepts of waste management are for a cleaner and green economy and sustainability.

VII. COLLABORATIONS, AWARDS & RECOGNITIONS

Stakeholders’ engagement and cooperative planning

University engages students, faculty, and other stakeholders for greater environmental and climate awareness through academic networking with all possible stockholders including government agencies, civil service organizations, academic institutions, research organizations and NGOs. The mode of action varies as per need which includes inhouse or onsite operations including capacity building, skilling, training programs, awareness drive, academic seminars, and workshops. Although the COVID lockdown restricted operations substantially, virtual mode gave

Faculty Recognitions in alignment with SDG 13

Institute	Faculty Name	Award	Awarding body	Year
ASET/CIVIL	Sakshi Gupta	'IGBC Accredited Faculty' certificate	IGBC FDP on Green Buildings & Built Environment held during 02 – 06 August 2021	2021
ACOAST/ ACESH	Mr. Shubhansh Tiwari	Environmental Award (Copy Attached)	The Award was presented in October 2021 by the NSDA during the World Environment Summit 2021, held at India International Centre, New Delhi during 1-3 October 2021.	2021
ASAS/AUH	Dr. Dipti Vaya	Resource Person in Certification Course	Certificate Course on Industrial Waste Management organized by St Xavier College Mumbai	2022
ACOAST/ ACESH	Prof. (Dr.) P.C.S. Devara	Work Agreement (MoU) between NASA-AERONET, USA and AUH, Gurugram, India	NASA, Greenbelt, MD, USA	2022

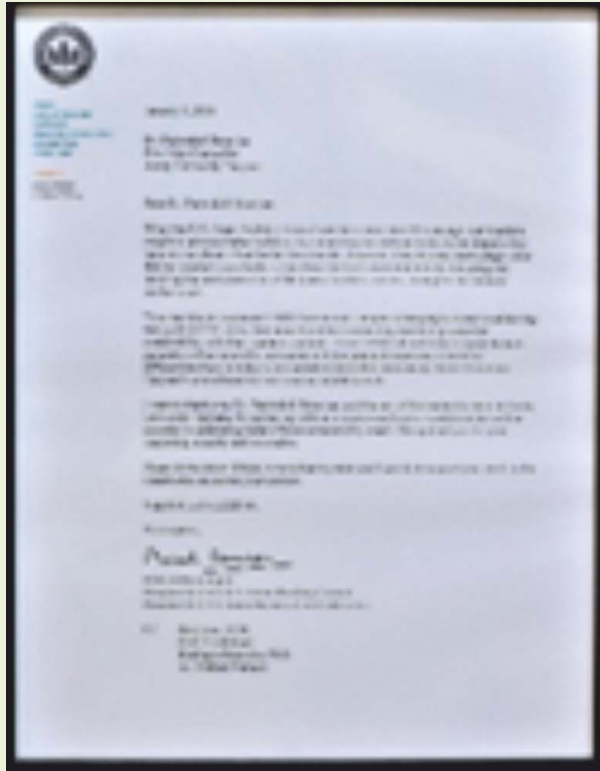
GLIMPSES OF CLIMATE ACTION AT AMITY UNIVERSITY HARYANA



LEED Platinum Campus



LEED Lab Certificate



LEED Lab empanelment



SAFAR's Air Quality Monitoring Centre and NASA-AERONET



The IET India Awards 2021 open for nominations RBI policy quote | JLL
Inauguration of Bio Lamp at Amity University Haryana
Published on August 6, 2021

BIOLAMP INAGURATION AT AMITY UNIVERSITY HARYANA



SOLAR ROOFTOP AND GROUND SOLAR PLANT



TREE PLANTATION DRIVE 'MISSION GREEN'

STAKEHOLDER ENGAGEMENT FOR CLIMATE DISASTER

[HOME](#) [LEADERSHIP](#) [ORGANISING COMMITTEE](#) [TRAINING PROGRAM](#) [SCHEDULE](#) [REGISTRATION](#)

Amity Mega Center for Natural and Man-made Calamities
in Collaboration with
United Nations University Institute on Comparative Regional Integration Studies
(UNU-CRIS)
organizes
Five Days International Workshop
On
Scanning the Horizon of Climate Change – Water Crisis - Disasters-Conflicts and Migration Nexus
21st Sep, 2021 - 25th Sep, 2021

Webinar on
URBAN FLOODING IN GURUGRAM: EXPERIENCES AND INITIATIVES
07 SEP 2021
11:00 AM - 12:30 PM
[REGISTER AT](#)
[www.training.amity.edu.in](#)

HOSTED BY
[www.training.amity.edu.in](#)

FOUNDERS
 Prof. Gaurav K. Bhatnagar
 Prof. Anshu Prakash

GUEST SPEAKERS
 Dr. Anshu Prakash
 Dr. Anshu Prakash
 Dr. Anshu Prakash

CONVENORS
 Dr. Anshu Prakash
 Dr. Anshu Prakash

Coordinators
 Dr. Anshu Prakash
 Dr. Anshu Prakash

With support of:
 National Institute of Disaster Management
 Ministry of Home Affairs, Government of India
 Amity School of Earth and Environmental Science
 Amity University Gurugram

Webinar on
GEO-HAZARD ANALYSIS AND MANAGEMENT
28th Aug 2021 (11:30AM to 1:30PM)

FOUNDERS
 Dr. Anshu Prakash
 Dr. Anshu Prakash

CONVENORS
 Dr. Anshu Prakash
 Dr. Anshu Prakash

TRAINED SPEAKERS
 Dr. Anshu Prakash
 Dr. Anshu Prakash

MANAGEMENT PLANS OF GEO-HAZARDS
MITIGATION TECHNIQUES FOR GEO-HAZARDS

VALEDICTORY SESSION
 Dr. Anshu Prakash
 Dr. Anshu Prakash

VOTE OF THANKS
 Dr. Anshu Prakash
 Dr. Anshu Prakash

COORDINATORS
 Dr. Anshu Prakash
 Dr. Anshu Prakash

YOUTH GALLERY
 Dr. Anshu Prakash
 Dr. Anshu Prakash

Govt. Sr. Sec. School
 Bhagwati, Agartala, Khar - 120042, Ph. 011-2610-20271
 Email: govtsrsec@delhi.gov.in
 School Code: 1001 | Dist. Code: 1100000100 | 8000 Loc. 001

Ref No: TSS/22/02 **Date: 27/09/2022**

To,
 Dr. Anshu Prakash
 Head of Department,
 Amity School of Earth and Environmental Science,
 Amity University Gurugram.

Subject: Letter of Appreciation

Dear Sir,
 I thank you for your immense support in organizing the webinar on **Safety and Security at School Level** through the kind cooperation of Teachers, Staff and Students of Bhagwati, Agartala, Khar, Gurugram.

Your valuable knowledge and insight understanding of disaster management helped to integrate the knowledge sharing and value addition in the best possible manner to the topic **Protection from natural calamities at School**.

We look forward to your future collaboration for the same in future.

With Regards,
 Dr. Anshu Prakash
 Head of Department,
 Amity School of Earth and Environmental Science,
 Amity University Gurugram.

Webinar on
"YOUTH EMPOWERMENT FOR CLIMATE CHANGE RESILIENCE"
28th August 2021
02:30 PM - 04:00 PM
[REGISTER AT](#)
[www.training.amity.edu.in](#)

FOUNDERS
 Dr. Anshu Prakash
 Dr. Anshu Prakash

CONVENORS
 Dr. Anshu Prakash
 Dr. Anshu Prakash

DISTINGUISHED SPEAKERS
 Dr. Anshu Prakash
 Dr. Anshu Prakash

COORDINATORS
 Dr. Anshu Prakash
 Dr. Anshu Prakash

With support of:
 National Institute of Disaster Management
 Ministry of Home Affairs, Government of India
 Amity School of Earth and Environmental Science
 Amity University Gurugram

EDITORIALS ABOUT THE SUSTAINABILITY AND ENVIRONMENT

Kushagra Rajendra (2022) पर्यावरणीय अंतर्संबंधों के अंतर्जाल की अनदेखी, हस्तक्षेप, राष्ट्रीय सहारा, 04/06/2022.

http://rashtriyasahara.com/imageview_21193_131437090_4_9_04-06-2022_0_i_1_sf.html

http://rashtriyasahara.com/imageview_21194_131438330_4_9_04-06-2022_2_i_1_sf.html

Kushagra Rajendra (2021) जलवायु कूटनीति के आईने में भारत, हस्तक्षेप, राष्ट्रीय सहारा, 30/10/2021.

http://rashtriyasahara.com/imageview_14104_98394556_4_9_30-10-2021_1_i_1_sf.html

http://rashtriyasahara.com/imageview_14105_98435264_4_9_30-10-2021_2_i_1_sf.html

Kushagra Rajendra (2021) नये नजरिए की जरूरत?, हस्तक्षेप, राष्ट्रीय सहारा, 28/08/2021.

http://rashtriyasahara.com/imageview_43635_98604084_4_9_28-08-2021_3_i_1_sf.html

Kushagra Rajendra (2021) प्रकृति सम्मत विकास की सीख, हस्तक्षेप, राष्ट्रीय सहारा, 14/08/2021.

http://rashtriyasahara.com/imageview_42307_91056288_4_9_14-08-2021_4_i_1_sf.html

The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations



**Take urgent action
to combat climate change
and its impacts**

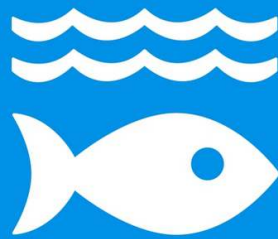


AMITY
UNIVERSITY
— HARYANA —

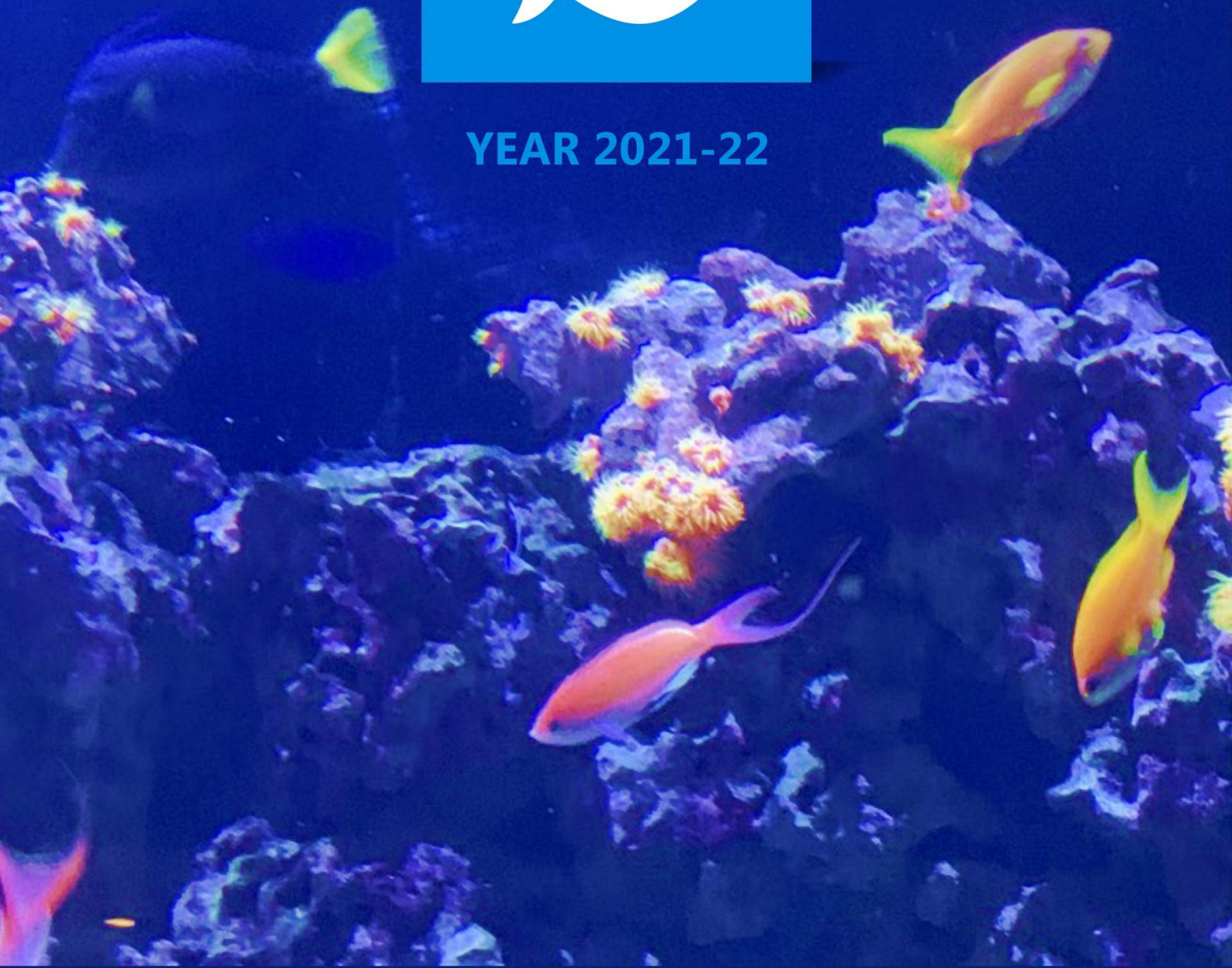
NAAC 'A'
GRADE
ACCREDITED UNIVERSITY

REPORT ON SUSTAINABLE DEVELOPMENT GOAL

14 LIFE
BELOW WATER



YEAR 2021-22



PREAMBLE

Amity University Haryana is directly and indirectly contributing to protect the marine pollution and conserving the ground water, protecting ponds in neighborhood region, adopting efficient water management practices and minimizing the plastic usage.

WASTE MANAGEMENT POLICY

The University has Solid Waste Management Policy aimed at following objectives:

- Protect the environment and public health
- Conserve natural resources
- Minimize landfilling and/or incineration and reduce toxicity

The following table lists recyclable wastes at the campus and their disposal method and handling procedures:

Source/Consumables	Disposal Method	Handling Procedure
Glass, Plastic, Metals, Paper/newspapers, Cardboard	Building occupants dispose of these recyclables in separately provided collection points on each floor. Cleaning staff sorts commingled recyclables out of the trash and delivers to central waste collection area.	Amounts are tracked and taken away by hauler on a regular basis for recycling.
Mercury-containing Lamps	Custodial staff collects fluorescent lamps and stores the unbroken lamps for disposal.	Taken away by an authorized hauler for safe disposal, in accordance with local regulations on disposal of products containing mercury.
Batteries	Building occupants deliver batteries to a specially-designated collection point for disposal.	Taken away by an authorized hauler on a regular basis for proper disposal.
Durable Goods (Electronic Waste and Furniture)	Building management provides a secure collection area to store durable goods that have reached the end of their life within the building but still have value and may be donated/re-used.	Amounts are tracked and taken away by an authorized hauler or re-use center on a regular basis for recycling.
Building Materials	Building management coordinates with contractors to collect construction waste for re-use/recycling.	Amounts are tracked and taken away by an authorized hauler at the end of the demolition/ construction period for recycling.
Toner/Cartridges	IT department keeps waste toner/cartridge at a designated area.	Amounts are tracked and taken away by the vendor to replace with the new ones.

WATER CONSERVATION AND RAINWATER HARVESTING

Rainwater harvesting facilities, which comprise an intricate network of wells dispersed around the campus, have been a crucial component of the university's expansion strategy from its founding. The watershed contour of this region is used to determine the position and size of such water collecting equipment, ensuring maximum rainfall harvesting.

- Number of wells: 43
- No of bores: 112

Periodical cleaning of Rainwater harvesting wells is carried out to ensure their efficiency for groundwater recharge. Proper operation and maintenance is followed to facilitate efficient water harvesting.

Water Conservation Measures: By implementing a network of rainwater collection and wastewater/effluent water treatment infrastructure and reuse, the AUH campus is dedicated to achieving

zero water discharge. This will guarantee efficient and optimal water utilisation. The institution has sophisticated systems in place to handle wastewater produced by its many departments, including administrative, residential, and laundry facilities. To guarantee effective utilisation, STP and ETP performance and efficiency are routinely assessed. Immediate remedial action is taken to rectify any problem to ensure water conservation and safety. Wastewater generated by the University are of two types:

- Sewage Waste
- Laboratory, Laundry and Cafeteria effluent waste

The above waste is treated through Sewage Treatment Plants (STPs) and Effluent Treatment

Plants (ETPs). The following are the details of STPs and ETPs installed in the university

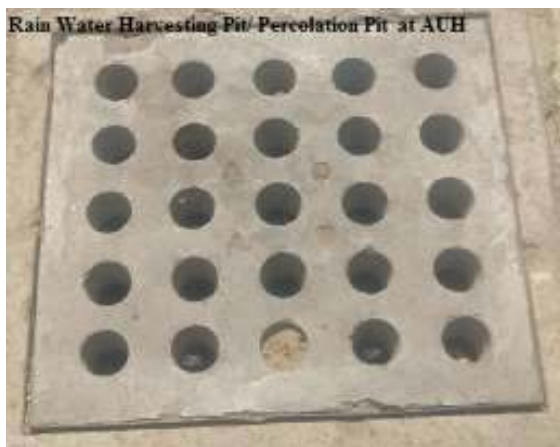
STP	Location	Capacity in Liters/day	Type
STP1	Near Faculty Flats	4,50,000	Aerobic
STP2	Near Faculty Flats	4,50,000	Anaerobic

ETP	Location	Capacity in Liters/day	Type
ETP1	Near Faculty Flats	50,000	Kitchen
ETP2	Near Faculty Flats	20,000	Laundry

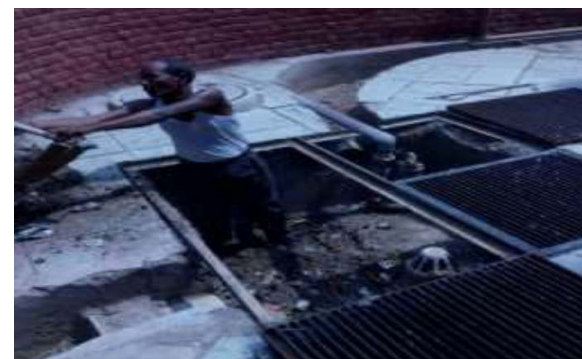
University strives towards developing water conservation and water efficiency through following strategies:

1. Promote water efficiency practices by spreading awareness among Students, Faculty & Staff.
2. Monitor and minimize the University's water consumption.
3. Promote planting indigenous trees in and around the University to reduce water usage.
4. Water samples are tested every quarter and record maintained.
5. All the roof top water is guided to the Rainwater Harvesting Wells.
6. Sustain implementation of innovative water-efficient technologies such as rainwater harvesting, reuse water etc.

Annual cleaning work of all the Rainwater Harvesting pits is executed before the monsoon and the photographs are attached for reference



Maintenance of water harvesting structures before rainy season



AUH HAS BEEN AWARDED A HIGH SOCIETAL IMPACT PROJECT TO REJUVENATE A WASTEWATER POND AT NEARBY BILASPUR VILLAGE IN HARYANA BY USING NANO TECHNOLOGY AND TRANSFER INTO A FRESH WATER POND. THE PROJECT WAS FUNDED BY GURUJAL AND UNDERTAKING HOME MINISTRY OF JAL SHAKTHI, GOVERNMENT OF INDIA.

Using a 100KLD Moving Bed Biofilm Reactor method and ferrite-based nanoparticles as heavy metal adsorbents, the primary goal of this study was to clean the pond. We are in the process of reviving the pond. After the project is finished, the lifestyles of over 10,000 people will be improved, which will improve the environment of the region. Three research publications and two patent applications have been made based on the wastewater treatment idea.

Based on invention on water treatment project, local communities provided water

management educational opportunities and learned about the sustainable water management practices.

The project offers the following benefits to society:

- Rejuvenation of the local water body into freshwater pond.
- Enhanced Cleanliness and hygiene.
- Availability of consumable water.
- Using solar green energy to run the plant.



PLASTIC FREE CAMPUS

The campus is trying its best to minimise the use of plastic. In this concern the stores and even the food stalls are motivated to use paper and jute bags for

packing. In this regard other activities are like Swachh Bharat Abhiyan, Farmer Training & Herbal Garden

RESEARCH AND PUBLICATIONS

- **High impact research:**

- Khan AA, Pant NC, Joshi R, Devara PCS. Chemical and isotopic variability of Bhagirathi river water (Upper Ganga), Uttarakhand, India. Ecological Significance of River Ecosystems: Challenges and Management Strategies; 2022. p. 133-146.
- Sharma K, Vaya D, Prasad G, Surolia PK. Photocatalytic process for oily wastewater treatment: a review. Int J Environ Sci Technol 2022.
- Mahamood M, Javed M, Alhewairini SS, Zahir F, Sah AK, Ahmad MI. Labeo rohita, a bioindicator for water quality and associated biomarkers of heavy metal toxicity. npj Clean Water 2021;4(1)
- Kumar V, Srivastava S, Thakur IS. Enhanced recovery of poly hydroxy alkanoates from secondary wastewater sludge of sewage

treatment plant: Analysis and process parameters optimization. Bioresour Technol Rep 2021;15

- Naveen BP, Sitharam TG, Sivapullaiah PV, Kumar S. Geophysical techniques for characterisation of municipal solid waste landfills. Proc Inst Civ Eng Waste Resour Manag 2021;174(3):78-96.

Patent: Hon'ble Founder President Dr. Ashok K. Chauhan, Dr. P. B. Sharma, Dr. Indu Shekhar, Dr. Shalini Bhaskar Bajaj, Dr. Manoj Kumar Pandey and Dr. W. Selvamurthy AUH, Gurgaon campus A system for saccharification, gasification and upgradation of lignocellulose waste for production of green energy 30-06-2022 202211037786

- **Copyright:** 16462/2022- CO/L Design prototype for automated segregation of inorganic solid waste components Dr. Naveen BP, Mohammed Yassen, Department of Civil Engineering, AUH, Manesar campus Filed 2-Aug-22.

HAPPENING & EVENTS

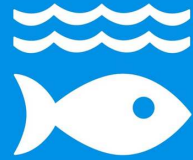
- Webinar on Green Technologies for mitigation of Global Warming & Climate Change in April 2022, by Mr. R.V. Shahi Chairman Mechanical Engineering Energy Infratech Pvt..Ltd, Dr. Ajay Mathur Director General Chemical Engineering International Solar Alliance, Dr. Arun Kumar Tripathi Adviser, Agriculture Engineering Ministry of New & Renewable Energy, Government of India, Dr. Ashok Kumar Dy. Director General Mechanical Engineering Bureau of Energy Efficiency, Shri S. N. Tripathi Executive Director Mechanical Engineering Project Management, NTPC, Dr. Jai Prakash Singh Director Electrical Engineering NISE, Ms. Debjani Bhatia Addnl. General Manager Masters in Renewable Engineering Technical Services & Business Head, IREDA,

Helped the students and faculty members to understand the emerging trends of various aspects in Civil Engineering and their importance including environmental aspects of the construction industry.

- Outreach program organized on World Environment Day 2022 (Only One Earth) in June 2022, it showcased that there is a need for consistent efforts by the entire mankind to save the planet. Even, a small amount of effort by every individual could lead to mark a huge difference to save the mother nature. On this World Environment Day students realized how every individual could put in small efforts, to make huge differences to save earth.

The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations.

14 LIFE
BELOW WATER





AMITY
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— HARYANA —

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REPORT ON SUSTAINABLE DEVELOPMENT GOAL

15 LIFE
ON LAND



YEAR 2021-22



PREAMBLE

In order to ensure that life on Earth flourishes, Sustainable Development Goal 15 aims to combat desertification, preserve and restore land degradation, stop biodiversity loss, preserve, repair, and promote sustainable use of terrestrial ecosystems.

Amity University Haryana is situated in 110 acres of lush green campus in the foot of Aravalli hills. It is committed to conserve the biodiversity and takes measures to protect the flora and fauna on campus through the following initiatives

1. Plantation Drive
2. Water conservation /collection
3. Green campus initiatives
4. Herbal Garden
5. Pollution control activities
6. Financing for sustainable campus management



Source: <https://www.thehindu.com/news/cities/Delhi/amity-campus-in-aravalli-hills-records-71-species-of-birds/article22926869.ece>

TEACHING AND LEARNING

Amity University play a significant role in educating students, faculty, and staff about the importance of ecosystem and biodiversity. The university create awareness about the goal by offering relevant courses, seminars, and workshops. It also facilitates research projects related to SDG 15, contributing to the development of new technologies for environment management. It leads by example by implementing sustainable environment management practices on campus.

Programs related to Sustainable Development Goal (SDG) 15, which focuses on Life on land are an integral part of the curriculum. The university offers various UG and PG programs to train students and professionals in the field of environment and climate.

S.No	Programes	School/Institute
1	B.Sc. (Hons) - Biological Sciences	Amity institute of Business
2	M. Tech - Biotechnology	
3	M Tech – Solar and Alternate Energy	Amity School of Applied Sciences
4	M.Sc -Renewable energy	
5	BSc- Earth Sciences	Amity School of Earth and Environmental Sciences
6	M.Sc.- Environmental Sciences & Management	

Some of the Open Electives those UG students across the university opts during their studies related to earth sciences, environmental sciences and climate change

- **Climate Science**

Semester 1- AST2151- Basics of Climate Science

Semester 2- AST2251- Introduction to Earth System Science

Semester 3- AST2351- Cloud Microphysics and Chemistry

Semester 4- AST2451-Climate Change: Impact, Vulnerability and Adaption

Semester 5- AST2551- Primer of Oceanography

Semester 6- AST2651- Fundamentals of Climate Variability and Modeling

- **Environmental Management**

Semester 1- ENV2151- Environmental Studies-I *

Semester 2- ENV2251- Environmental Studies-II *

Semester 3- ENV2351-Environmental Pollution and Waste Management

Semester 4- ENV2451-Environmental Management and Industrial Safety

Semester 5- ENV2551-Environmental Economics and Globalization

Semester 6- ENV2651-Sustainable Development Practices

- **Geotechnical Engineering**

Semester 1-CIV2351- Engineering Geology

Semester 2-CIV2451- Geo informatics

Semester 3-CIV2551- Geotechnical Engineering-I

Semester 4-CIV2651- Geotechnical Engineering-II

Semester 5-CIV2751- Project (Geotechnical Engineering)

Semester 6-CIV2851- Seminar-Geotechnical Engineering

RESEARCH & COLLABORATIONS

Environment and climate change is a topic of interest for researchers at Amity University Haryana. There are several research works conducted by faculty members in collaboration with R&D institutions. Some of these initiatives are listed below:

- **NASA-AERONET SUN-SKY MULTI-FILTER RADIOMETER**

In a collaborative research effort, a global network station of NASA AERONET (AErosol RObotic NETwork) site has been successfully established in May 2017 on the roof-top of Academic Block-A of Amity University Haryana, Panchgaon-Manesar-Gurugram for regional air quality and climate research (Figure 1). The valuable data sets (column-integrated aerosol optical depth, aerosol size distribution, aerosol refractive index, fine-mode and coarse-mode aerosol fractions, single scattering albedo, phase function, asymmetry parameter, water vapor, effective radius and current satellite and long-range transport model trajectories) from this real-time sun-sky radiometer provide understanding of almost complete characterization of aerosols over different environments. These real-time, network observations yield radiative forcing due to aerosols and various gases that play a vital role in climate change. These datasets have also been found valuable for developing models for forecast purposes and for calibrating/validating the satellite sensors (Holben et al., 1998; Giles et al., 2019; Vijayakumar et al., 2018, 2020).



- Multi-spectral Aerosol Optical Depth (340, 380, 440, 500, 675, 870, 1020nm)
- Aerosol Size Distribution
- Single scattering albedo
- Asymmetry Parameter
- Phase Function
- Total, Fine and Coarse-mode fractions
- Water vapor
- Aerosol Refractive Index
- Ozone optical Depth
- MODIS-Aqua and Terra AOD
- HYSPLIT Airmass Trajectories
- TOMS/OMI TCO

NASA-AERONET Multi-spectral Solar Radiometer installed at Amity University Haryana (AUH), Panchgaon-Manesar-Gurugram, India

- **MEMORANDUM OF UNDERSTANDING (MoU) BETWEEN NASA, USA AND AMITY UNIVERSITY, INDIA**

A prestigious MoU between NASA, GSFC, Greenbelt, MD, USA for NASA AERONET Facility at AUH has been signed on 14 June 2022 for the next 10 years (i.e., up to 2032). This MoU with Amity University in India plays the greatest role in advancing the Monitoring, Diagnosis, Modelling and Satellite Data Validation of Environmental Health and Global Climate and Allied Research.

NATION-FIRST SUN-SKY-MOON-POLARIZED MULTISPECTRAL RADIOMETER AT AMITY UNIVERSITY HARYANA (AUH), GURUGRAM, INDIA



Despite the high temporal and spectral resolution provided by different aerosol networks, the sun photometry yields aerosol information limited to the daylight period and column averaged. Moreover, polarization measurements that provide composition and shape of aerosols are sparse. These important limitations hamper our understanding of aerosols for climate studies, particularly over high-latitude regions where we encounter extended periods of darkness at wintertime. To acquire this vital information, as a part of the ongoing long-term research collaboration program which is in progress between NASA-AERONET, GFDL, USA and Amity University Haryana (AUH), India, a sun-sky-lunar-polarized multiband photometer has been installed at AUH,



Fig. 2.:
NASA CE-386-T Day-Sky-Night Polarized Multi-Wavelength Radiometer at AUH

Panchgaon, a pristine location in the Haryana State. Some salient features of this new system together with some preliminary results that merit over the earlier conventional network systems (Holben et al., 1998; 2021) for climate sustainability studies have been reported elsewhere (Devara et al., 2023).

MAIA-AMOD SAMPLING SYSTEM FOR SPACEBORNE HEALTH STUDIES

As a part of the CAL-VAL Program of NASA's satellites, a Network of Citizen-Enabled Aerosol Measurements for Satellites (CEAMS), involving MAIA (Multi-Angle Imager for Aerosols Investigation) AMOD (Aerosol Mass and Optical Depth) samplers are being installed by Emory University Rollins School of Public Health, Atlanta, Georgia, USA at different Suitable locations all over the globe. The ACOAST-AUH has been selected as one of the sites in this global network (Figure 3). The IIT-D is coordinating these installations in India. Very recently, a MAIA AMOD

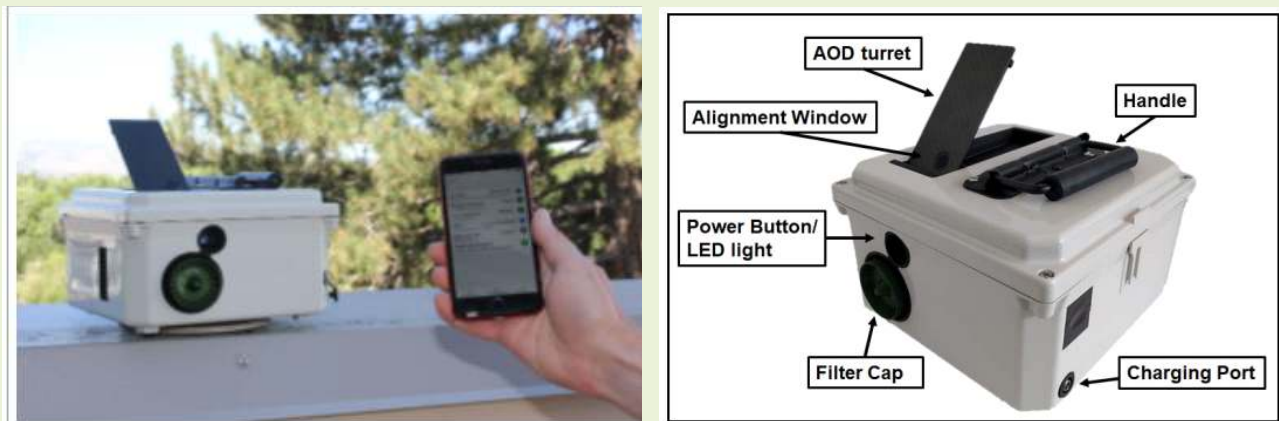


Fig. 3. MAIA-AMOD Sensing and Data Acquisition system installed at Amity University Haryana (AUH), Gurugram, India for Calibration and validation of NASA satellites.

sampler has been installed (Figure 2), co-located with the existing NASA-AERONET instrument, which has been operating for the past more than 4 years at AUH. The data from MAIA AMOD would improve our understanding of how aerosols affect local air quality, visibility, and human health through the connections between AOD and fine particulate matter of PM2.5.

The faculty members received recognition for their contribution in the field of environmental sciences.

The faculty members received recognition for their contribution in the field of environmental sciences.

1	ACOAST	Prof. Dr. P.C.S. Devara	Best Research Award	The Award was presented by Science Father, Scifax company (Reg. No. 130116), Approved and Registered by Ministry of Corporate Affairs (MCA), Govt. of India.	2021
2	ACOAST/ ACESH	Prof. Dr. P.C.S. Devara	Jury, AARA Fellows of 2022	Asian Aerosol Research Assembly (FAARA-2022), Elected as Member, Selection Committee of Fellow, Asian Aerosol Research Assembly (FAARA-2022)	2021
3	ASET/CIVIL	Sakshi Gupta	IGBC Accredited Faculty' certificate	IGBC FDP on Green Buildings & Built Environment held during 02 – 06 August 2021	2021
4	ACOAST/ ACESH	Mr. Shubhansh Tiwari	Environmental Award (Copy Attached)	The Award was presented in October 2021 by the NSDA during the World Environment Summit 2021, held at India International Centre, New Delhi during 1-3 October 2021.	2021
5	ACOAST/ ACESH	Prof. Dr. P.C.S. Devara	Work Agreement (MoU) between NASA-AERONET, USA and AUH, Gurugram, India	NASA, Greenbelt, MD, USA	2022

Some of the publications made by researchers in high impact journals are listed below:

1. Fadnavis S, Chavan P, Joshi A, Sonbawne SM, Acharya A, Devara PCS, et al. Tropospheric warming over the northern Indian Ocean caused by South Asian anthropogenic aerosols: Possible impact on the upper troposphere and lower stratosphere. Atmos Chem Phys 2022;22(11):7179-7191.
2. Sonbawne SM, Fadnavis S, Vijayakumar K, Devara PCS, Chavan P. Phase-Resolved Lockdown Features of Pollution Parameters Over an Urban and Adjoining Rural Region During COVID-19. Front Environ Sci 2022;10.

3. Khan AA, Pant NC, Joshi R, Devara PCS. Chemical and isotopic variability of Bhagirathi river water (Upper Ganga), Uttarakhand, India. *Ecological Significance of River Ecosystems: Challenges and Management Strategies*; 2022. p. 133-146.
4. Sonbawne SM, Devara PCS, Bhojar PD. Multisite characterization of concurrent black carbon and biomass burning around COVID-19 lockdown period. *Urban Clim* 2021;39.
5. Srivastava AK, Bhojar PD, Kanawade VP, Devara PCS, Thomas A, Soni VK. Improved air quality during COVID-19 at an urban megacity over the Indo-Gangetic Basin: From stringent to relaxed lockdown phases. *Urban Clim* 2021;36.
6. Sonbawne SM, Devara PCS, Bhawar R, Reddy RPRC, Siingh D, Fadnavis S, et al. Aerosol physico–optical–radiative characterization and classification during summer over Ny-Ålesund, Arctic. *Int J Remote Sens* 2021;42(22):8760-8781.
7. Devara, P.C.S., K. Vijaya Kumar, B. Holben, P. Gupta, J. Kraft, E. Lind, S. Tiwari, and P.B. Sharma, (2023). Prof. IASTA Conference, 12-14 December 2023, Mumbai.
8. Giles, D.M., A. Sinyuk, M.G. Sorokin, J.S. Schafer and Co-authors (2019). *Atmos. Measure Techn.*, 12, 169-209.
9. Holben, B.N., T.F. Eck, I. Slutsker, D. Tanre and Co-authors (1998). *Remote Sense of Environ.*, 66, 1.
10. Vijayakumar, K., P.C.S. Devara, D.M. Giles, B.N. Holben and Co-authors (2018), *Intl. J. Remote Sens.*, 1-21.
11. Vijayakumar, K., P.C.S. Devara, S.M. Sonbawne, D.M. Giles, B.N. Holben and Co-authors (2020), *Atmos. Measure Techn.*, 13, 5569–5593, 2020 <https://doi.org/10.5194/amt-13-5569-2020>.

GOVERNANCE

Amity University Haryana with a legacy of world class academic infrastructure is a part of Amity Education Group, a pioneer of global culture in education in India. AUH - a research and innovation driven university, is built on a foundation, which embodies the qualities that have made Amity institutes world class. Spread over a 110 acre green campus in the close proximity of Gurugram, one of India's biggest corporate hubs, AUH is India's first University to be awarded LEED Platinum certification for its green building.

Over the years, the University has instituted global standards in education, training and research with state-of the-art infrastructure, the latest teaching methodologies and digital integration. With the mission to train budding leaders of the corporate, social and cultural world, the University strives to blend modernity with tradition for sustainable future.

AUH has committed to preserving the native plants in its campus. It has a full-fledged horticulture department which takes care of the vegetation, flora and fauna with a team comprising of local farmers 25 in number, 2 staffs who are qualified practitioners in plant sciences and a researchers in agricultural technology. The team works dedicatedly to maintain the green campus. The farmers are given salary and incentives as per the HR Policy 2021 laid for all teaching and non- teaching staffs.

7.6. INCREMENTS

The management as per its policy always endeavors to reward the individuals for their professional performance and achievements. As one of the incentives, faculty members are considered for suitable Increments/ Allowances based on their assessed Performance Grade and recommendations of the HO/ HOD.

For Teaching Staff Performance Grade/ API Ratings, API Score of PBAS will be considered.

Timelines for Increment (Teaching and Non-Teaching Staff):

Increment for Teaching and Non-Teaching are filled twice a year.

(a) Employees who had joined (April- September) will fall in JULY CYCLE.

(b) Employees who has joined (October- March) will fall in JANUARY CYCLE.

Increment Process for Teaching and Non-teaching staffs as per HR Policy

The sustainable use of land refers to the responsible management and utilization of land resources in a manner that meets current needs while also preserving and protecting the land's capacity to meet the needs of future generations. This concept is closely related to sustainable development, which aims to balance economic, social, and environmental considerations. The Mission Green initiative adopted by AUH have the following key principles and practices for achieving sustainable land use:

- Land Conservation: AUH protects natural habitats and ecosystems from excessive development and urbanization. This includes creating and maintaining protected areas, wildlife reserves, and green spaces.

- **Agricultural Sustainability:** AUH Promoting sustainable agricultural practices, including crop rotation, soil conservation, organic farming, and reduced chemical use. This helps maintain soil fertility and prevents degradation.
- **Afforestation and Reforestation:** AUH Planting trees and restoring forests to combat deforestation, enhance biodiversity, and sequester carbon dioxide, mitigating climate change.
- **Waste Management:** AUH maintains Proper disposal of waste materials, including hazardous waste, to prevent contamination of the land and groundwater.
- **Land Use Planning:** AUH make Comprehensive and forward-thinking land use planning that considers population growth, economic development, and environmental protection, aiming to strike a balance between competing interests.
- **Land Restoration:** AUH Rehabilitating degraded land through various techniques, such as re-vegetation and soil improvement, to bring it back to a productive and sustainable state.
- **Education and Awareness:** AUH Promoting public awareness and education about the importance of sustainable land use and its long-term benefits. At this university, we strive to support the preservation and sustainable use of all land, including forests and wild areas, by preserving organic farming, converting wild areas into amla and kinnu gardens, and maintaining herbal gardens.
- **Land-Use Planning:** AUH had developed comprehensive land-use plans that consider the needs of both agriculture and tourism. These plans should consider factors such as soil quality, water resources, and ecological sensitivity.
- **Crop and Livestock Rotation:** AUH implement crop and livestock rotation to maintain soil health and fertility, reduce the need for synthetic fertilizers and pesticides, and prevent soil erosion.
- **Agroforestry:** AUH Integrate tree and forest systems into agricultural landscapes to provide multiple benefits, such as carbon sequestration, habitat for wildlife, and potential tourism opportunities like agro-tourism or forest-based tourism.

Policy on plastic waste reduction year :

This policy is for Plastic waste reduction which is a pressing global imperative that necessitates collaborative action across various sectors. The crux of this effort lies in a multifaceted approach encompassing public awareness, policy interventions, and innovative solutions. Initiatives focused on educating communities like AUH about the environmental repercussions of plastic use play a pivotal role in fostering behavioural change.

Policy on reducing plastic waste disposal.

Efforts to achieve reduction in plastic waste disposal involve a combination of waste reduction strategies, increased recycling initiatives, and widespread adoption of sustainable practices. Implementing effective waste management systems that prioritize recycling and proper disposal is essential. Amity university promotes the three Rs—reduce, reuse, and recycle—encouraging citizens to minimize their reliance on single-use plastics, opt for reusable alternatives, and actively participate in recycling programs.

EVENTS AND SOCIAL OUTREACH

At AUH, events are organized by the school of earth and environmental sciences in collaboration with horticulture department to involve students and faculty member in conserving the environment. It provides them with hands on knowledge about the methodology that needs to be adapted while doing plantation or during the time of growth of the plant. Some of the events organised at AUB are listed below:

Visit to Herbal Garden by the Cadets of Military Training Camp

Military Training Camp is a compulsory programme for completing graduation or master's degree in Amity Universities. Students come to attend 5 days camp in that programme one detailed visit is scheduled for them to understand the importance of Herbal plants.



Visit to Herbal Garden by the MTC cadets

Educational Programme on Ecosystem for Local or National Communities

School Students visit: School student visit organises by Amity Schools to aware students about the medicinal plants, herbs, and their importance in today's world. AUH Herbal Garden and Dog academy make sure to give them the appropriate knowledge about the Plants and Animals.



Students from Amity School visiting Herbal Garden

Visits of Guest:

Every visitor to the university, regardless of their employment objective, is given a comprehensive tour of the campus that includes a visit to the dog academy, an organic farm, and a herbal garden to educate them about ecosystem management.



Visit of external expert form Industry to the Herbal Garden organised by Amity School of Earth and Environmental Sciences

Workshops on Plant Based Food Products

The students gained a lot of information about several plant-based food products that are available in market under brand name PLANTMADE, vegan diet, keto diet, Jain kosher meals, nutrition associated with plant-based food, various food allergies, why to choose plant-based food products over animal-based food products, comparison of plant-based food products with animal-based food products in terms of nutrition, digestion, availability, price, ingredients, variety, taste, cooking style, cooking time etc.

Link for the event:

<https://www.amity.edu/gurugram/events/12403/workshop-on-plant-based-food-products-by-mr.-prakarshi-pulkit,-chief-of-operations-&-innovations-plantmade>

Social Outreach:

Most of the students at AUH are from urban background. The university provides them the opportunity to come close to the nature and learn from the farmers by interacting with them on the field. This is a great learning opportunity for the students and some of them take up projects in the area of agricultural sciences and apply their expertise to solve the problems or provide innovative techniques which can be adapted by farmers. They are also involved in field work; prepare a plan for the field study, schedule interviews with locals and conduct interviews. The interaction with the farmers give them the opportunity to learn about their culture, food habits, health issues and their socioeconomic conditions to understand the life of the people who feed India.

Community Outreach Programme Agricultural Transformation: A Study of Farming Households in Eight Villages of Haryana Organized by Amity School of Economics

Helps in spreading awareness towards environmental issues and problems associated with it. How can we invest in making our planet a better place to live.

<https://www.amity.edu/gurugram/events/12927/amity-school-of-earth-&-environmental-sciences-celebrated-earth-day>

Amity School of Earth & Environmental Sciences organized online Poster Competition on International World Environment Day

A plastic-free planet should not be only for the privileged but should also provide solutions and alternatives for many who depend upon this cheap, light, and accessible material. It is important that in the rush to become plastic-free, we do not suddenly turn to unsustainable or damaging alternatives.

Sustainable management of land for agriculture and tourism

Sustainable management of land for agriculture and tourism is crucial to ensure the long-term well-being of both the environment and the economy. Here are some key principles and practices for achieving this balance:

Plantation Drive under the campaign of “MISSION GREEN”

Objectives of the Plantation Event:

Deforestation is one of the main reasons for the earth's climate change. As per some scientists, it is said that deforestation is responsible for around 18-25% of climate change. Trees are the only way to overcome unstable environment. From a long time, AUH ensure adoption of native species of vegetation for plantation and landscaping. Due to natural vegetation patches AUH campus is very much ecologically sound reflected by large number of Birds and butterflies inside the campus to continue the chain you can join the plantation drive.

On the occasion of 75th Independence Day, Plantation Drive at AUH Campus was conducted by Amity School of Earth and Environmental Studies in collaboration with the Horticulture Department. The event was conducted to create awareness towards the importance and benefits of environmental conservation and plantation including use of each parts of neem plants in our daily life. Faculty discussed the urgency of latest techniques that would benefit mankind by by creating solution which is beneficial to both environment and society and expressed concerns for environmental restoration, Green Energy, and environmental conservation.

Through the MISSION GREEN we motivate our youth to protect the environment and hope that we will be successful. The First Phase of plantation has been successfully completed on August 15, 2021 under the supervision of Prof. I.S. Thakur & Dr. Viveak Ballyan and Second Phase was be scheduled on August 27, 2021. Under the plantation drive, 150 trees (Neem, Papri, Alstonia (Chitvan) and Jamun) were planted at along the boundary wall from Gate No. 3 towards Hostel Backside and up to STP Plant and also along the boundary wall from Gate No. 2 towards Amity Dog Academy total 75 trees were planted. Team members of the Environmental and Consumer Protection Foundation (approx. 20 numbers) and the faculties, staff members and students participated in plantation drive and they were highly interested to become part of the Green mission.



Plantation Drive at Amity University Haryana

UNIVERSITY INFRASTRUCTURE

LEED Lab

Three academic buildings on the Amity University Haryana Campus have received certification as LEED PLATINUM for their green building design, operation, and maintenance. This is the highest rating granted by the USGBC (U.S. Green Building Council) for LEED (Leadership in Energy and Environmental Design) in July 2017; the buildings are among the most educational in Asia and India.

The LEED is the most widely used third party verification for green buildings incorporating highest levels of green parameters in use of materials, construction technology, use of natural light but are also operated and maintained with highest standards of energy efficiency. LEED is a framework to provide a life cycle of building from construction to operation by connecting our daily activities to the impacts they have on our planet. It also provides an opportunity to transform the built environment to green building.

Amity University has joined hand with GBCI to train and educate students to cater the upcoming industry need of green building by initiating an educational module; LEED Lab. LEED Lab is a unique academic initiative which integrates a policy framework to classroom activity to get desired outcome in arena of sustainable built environment. The university has decided to start a LEED Lab for this noble cause of ensuring sustainability. It is a key educational tool connecting students' passion for sustainability with their academic pursuits. It will help to equip the next generation of sustainability advocates with the practical experience needed to differentiate them in today's job market. Through this program students will be trained for green building framework through classroom activity along with project on existing building of AUH campus and their monitoring and assessment of existing building provide performance score of said building. At the end of the course students will be prepared to take the exams of LEED Green Associate and LEED Accredited Professional.



GBCI Launches First LEED Lab In North India At The Amity University, Haryana Read more at: <https://www.magzter.com/stories/Art/Commercial-Design/GBCI-Launches-First-LEED-Lab-In-North-India-At-The-Amity-University-Haryana>

Rich in Flora and Fauna

Amity campus in Aravalli hills records 71 species of birds as reported by The Hindu. <https://www.thehindu.com/news/cities/Delhi/amity-campus-in-aravalli-hills-records-71-species-of-birds/article22926869.ece>

There are 49 different species of butterfly in Gurgaon region in which 40 is in AUH.



Different species of butterflies at AUH, <https://ebird.org/hotspot/L5441195>



Butterflies at AUH Campus, <https://ebird.org/hotspot/L5441195>

AUH provides the birds a natural habitat comprising of vegetation, water environment, pollution free open space and food. Faculty members have conducted 57 surveys & documented the findings which are as follows:

- Birds Diversity: 139 Species
- Campus Bird Count (most diverse in NCR)
 - Year 2017- 53 Species
 - Year 2018- 71 Species
 - Year 2019- 83 Species
 - Year 2020- 97 Species

- **Diverse Avifauna**

Native/Migratory (Summer/Winter)
Waterfowl/Herons/Shorebirds
Pigeons/Doves/Cuckoos/Barbets
Bird of Prey/Owls/Crows/Hornbills
Mynas/Wagtail/Flycatchers
Babblers/Parrots/Shrikes/Drongo

- **Unique Birds**

Indian Pitta, Small Minivet, Knob billed duck Spotted Owlet, Red Avadavat, Peafowl



Unique bird species at AUH



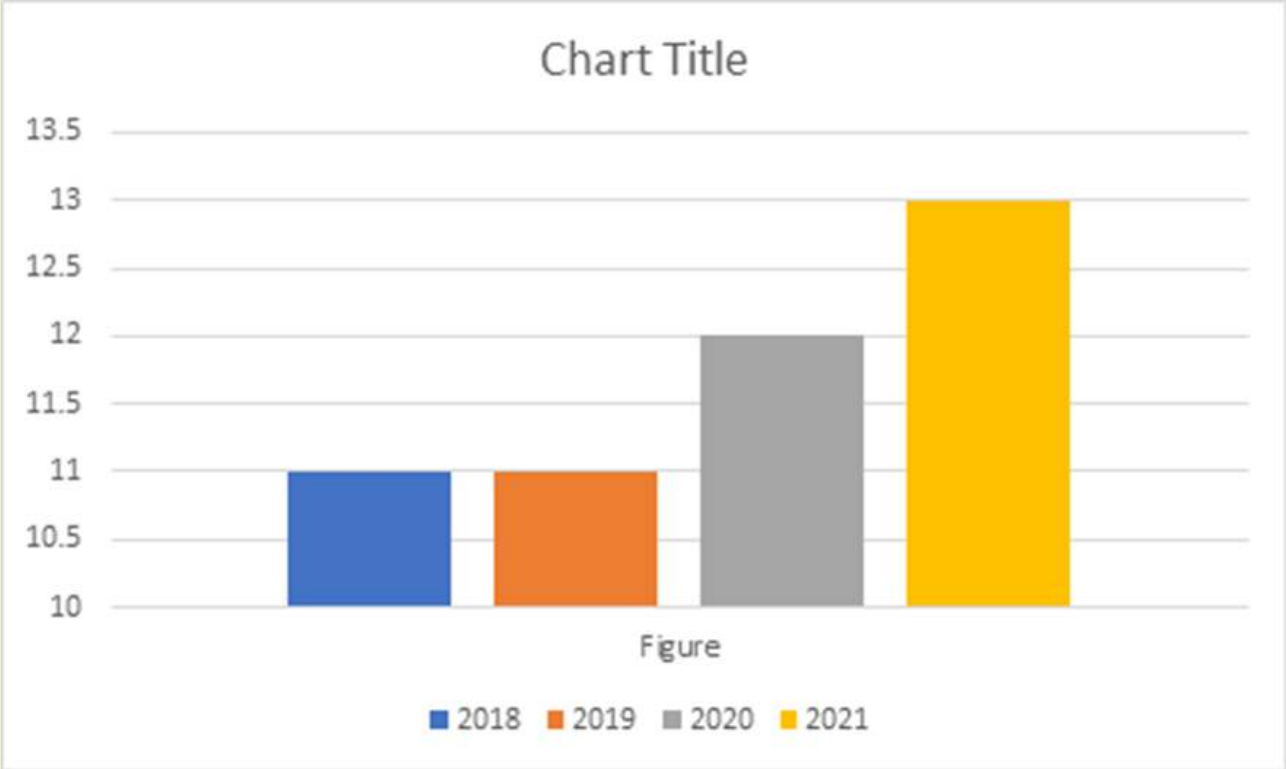
Peacock at AUH

Greenery at Campus

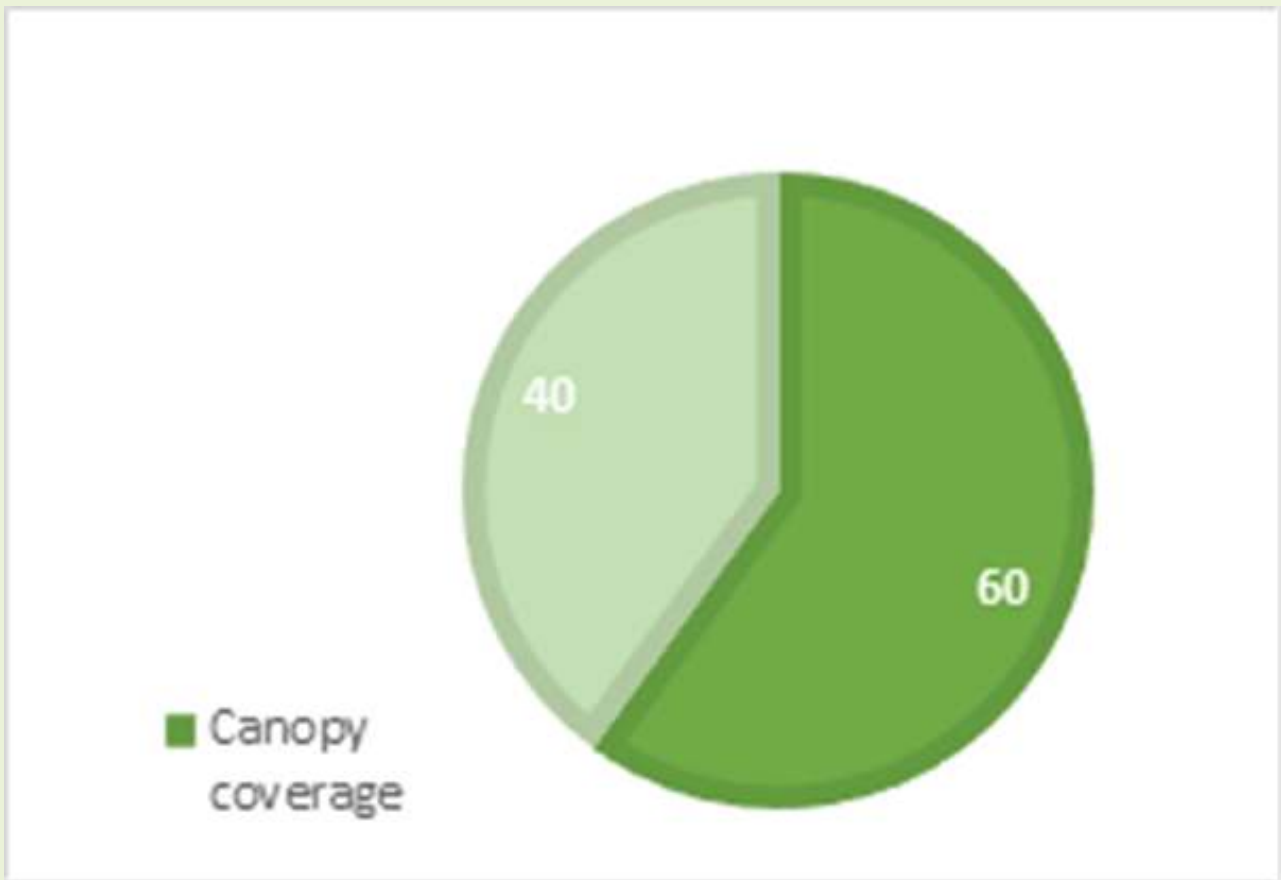
In University the total land area is 110 acres from this only 36 acre is taken by buildings or infrastructure rest 74 acre is green area which includes Trees, shrubs and Lawns and playground. Mostly multipurpose trees are planted along the side of the roads, which gives Aesthetic feel, shadow and they are fast growing, native so easy to maintain like Alstonia, Shisham, Neem, Peepal Ficus, Sagwan, Poplar Indian Mahogany, Frangipani, Pilkhan etc .



The green cover consists of trees and grass cover around the university which are 60% of trees and 40% of grass cover as represented on below figure.



This graph represents that in 2018,2019 we were having 11 acre (44515.4 sq.m), 2021 having 12 acre (48562.3 sq. m) and in 2021 having 13 acre (52609.1 sq. m) of grass cover.



Medicinal Plants – Herbal Garden

An herb garden is often a dedicated space in a garden, devoted to growing a specific group of plants called herbs or medicinal plants.

On our campus, a 5-acre herbal garden is a rich resource for advanced research in the field of Medicinal Plants. The herbal garden is treated as a field laboratory for creating awareness amongst students and visitors.

Here Herbal Garden is a separate space in garden devoted to growing a specific group of plants known as herbs. In our herbal Garden there is combination of ornamental and medicinal plants which we used for research and demonstration purpose.

It also plays important role in biodiversity conservation, commercial cultivation of medicinal & aromatic plants, production of quality planting material, processing & value addition, education, product development, capacity building, education and consultancy, marketing, database and publications.



List of Drought Resistance Plants –

1. Includes drought resistance trees.
1. Drought resistance shrubs
2. Drought resistance ground covers
3. Drought resistance ornamental grasses

Organic Farming:

Organic farming is often considered a sustainable and environmentally friendly agricultural practice that can contribute to land conservation in several ways. Land conservation is essential to maintain soil health, biodiversity, and overall ecosystem stability. Here are some of the ways in which organic farming can promote land conservation:

Reduced Soil Erosion: Organic farming practices, such as crop rotation, cover cropping, and reduced tillage, help to reduce soil erosion. By minimizing soil erosion, the topsoil layer, which is critical for plant growth and soil health, is preserved.

Enhanced Soil Health: Organic farming relies on the use of compost, manure, and organic matter to improve soil fertility. This approach enriches the soil with nutrients and organic matter, promoting soil structure and microbial activity. Healthy soil is better at retaining water, preventing runoff, and supporting long-term land productivity.

No Synthetic Chemicals: Organic farming avoids the use of synthetic pesticides and fertilizers, which can have adverse effects on soil and water quality. By eliminating these chemicals, organic farming reduces contamination of the land and adjacent water bodies.

Biodiversity Conservation: Organic farming often supports higher levels of biodiversity compared to conventional agriculture. By avoiding synthetic pesticides and promoting diverse crop rotations, organic farms can provide habitats for beneficial insects, birds, and other wildlife. This contributes to land conservation efforts by maintaining healthy ecosystems.

Preservation of Native Plants and Heirloom Varieties: Organic farming often encourages the cultivation of heirloom and native crop varieties, helping to preserve genetic diversity and traditional farming practices. This is essential for land conservation because it maintains unique and regionally adapted plant species.

Water Conservation: Organic farming practices, such as mulching and efficient irrigation methods, help conserve water resources. Water conservation is closely linked to land conservation because water is a critical element of soil health and ecosystem stability.

Reduced Energy Usage: Organic farming often involves more labour-intensive practices but may require fewer energy-intensive inputs like synthetic pesticides and fertilizers. By reducing the energy footprint, organic farming contributes to the overall conservation of natural resources.

Vermicompost:

Vermicompost is indeed beneficial for the conservation of land and soil for several reasons:

Soil Erosion Control: Vermicompost improves soil structure, making it more resistant to erosion. It helps bind soil particles together, reducing the risk of soil erosion caused by wind and water.

Increased Soil Fertility: Vermicompost is rich in organic matter and essential nutrients. When added to soil, it enhances its fertility, providing plants with the necessary nutrients for healthy growth. This can lead to increased crop yields and better plant resistance to diseases and pests.

Enhanced Water Retention: Vermicompost improves the soil's water-holding capacity by increasing its ability to retain moisture. This is particularly beneficial in arid regions, as it helps conserve water and reduces the need for frequent irrigation.

Reduced Soil Degradation: The use of vermicompost can help mitigate soil degradation caused by continuous agricultural practices. It replenishes essential nutrients and organic matter in the soil, preventing nutrient depletion and maintaining soil health.

Decreased Soil Pollution: Vermicomposting is an eco-friendly method of managing organic waste. By diverting kitchen scraps and other organic materials from landfills, it reduces the risk of soil pollution caused by harmful substances leaching from landfills into the soil.

Minimal Chemical Dependency: The nutrient-rich vermicompost reduces the reliance on synthetic chemical fertilizers, which can harm the soil and surrounding ecosystems over time. This is especially important for sustainable agriculture and land conservation.

Soil Microbial Activity: Vermicompost contains beneficial microorganisms that promote healthy soil microbial activity. These microorganisms can break down organic matter further and aid in nutrient cycling, leading to improved soil health.

Enhanced Biodiversity: Healthy soil, supported by vermicompost, can sustain a diverse range of soil organisms, including earthworms, beneficial insects, and microorganisms. This biodiversity contributes to the overall health of the ecosystem.

Sustainable Land Use: Vermicompost is a sustainable and renewable resource that supports long-term land conservation efforts. It can be produced locally, reducing the need to transport soil amendments over long distances.

By improving soil quality, reducing the need for synthetic inputs, and supporting sustainable agricultural and gardening practices, vermicompost contributes to the conservation of land and helps ensure that it remains productive for future generations. It is an eco-friendly solution to many of the challenges associated with land degradation and soil depletion.



Biogas Plant:

In all spheres of socioeconomic and agro-industrial growth, a far larger focus on green energy technologies, green science, and green engineering would be necessary in the post-COVID-19 future. A green and bright future for the people of India and the global society is guaranteed by this significant transition towards green technologies. With the blessing of solar energy from the sky and a vast amount of biological green waste from its agriculture, India has a ripe chance to accelerate the adoption of green energy technologies. India has achieved remarkable success in solar energy, but its commitment to producing and using biogas has increased much too much. Biogas generation from the country's biowaste produced in plenty.

Hence, Amity university Haryana inaugurated its biogas powered Bio Lamp



GOVERNANCE & MANDATES

Amity University Haryana has implemented a comprehensive set of preventative measures to maintain the greenery of the campus and ensure the safety of its eco system. These practices contribute to maintaining a clean and sustainable environment.

1. **Plantation drive** : Amity University Haryana plant every year around 500 plants by arranging events one's in a while for students and nearby locals.
2. **Importance to native plants:** In AUH focus is mainly on planting the native plants, so the mortality rate can be high.
3. **Maintenance:** checking growth and maintenance of plants is in high priority , for that we have 25 gardeners they are trained in maintaining plants .\
4. **Minimizing the use of chemicals:** we focus on using the vermicompost for the growth of plants in AUH.
5. **Water management for plants:** AUH have 110-acre total land area in which 60% is lawns and plants so maintaining the water we keep watering them in a rotational way so every plant can be cover in a suitable time.

15.3.1 Sustainable use, conservation, and restoration of land (policy) 22:

This policy stands for practices that meet the needs of the present without compromising the ability of future generations to meet their own needs.

Key Principles:

Resource Efficiency: Minimize waste and maximize the efficient use of resources to reduce environmental impact.

Biodiversity Conservation: Protect and enhance biodiversity by promoting diverse and resilient ecosystems.

Community Engagement: Involve local communities in decision-making processes to ensure that their needs and perspectives are considered.

Conservation involves the protection and preservation of natural resources, ecosystems, and biodiversity to maintain their integrity and prevent degradation.

Strategies:

Protected Areas: Establish and manage protected areas such as national parks, wildlife reserves, and marine sanctuaries to safeguard critical habitats.

Habitat Restoration: Restore degraded ecosystems to their natural state through reforestation, wetland restoration, and other conservation activities.

Sustainable Practices: Promote sustainable agricultural, forestry, and land management practices that reduce negative impacts on ecosystems.

Land Use Planning: Implementing comprehensive land use planning that considers ecological, social, and economic factors to guide sustainable development.

15.3.2 Monitoring IUCN and other conservation species (policies) 22:

15.3.3 Local Biodiversity included in planning and development:

AUH build by considering the fact in notice that is without the plants and biodiversity we can't survive on a longer-term basis. We have a Banyan tree which is approx. 200 years old. We planned buildings in a way that it doesn't affect any existing ecosystem.

Incorporating local biodiversity into planning and development is crucial for creating sustainable and resilient communities. This process involves considering the variety of life in a particular habitat, including ecosystems, species, and genetic diversity.



15.3.4: Alien species impact reduction (policies)

Policies to reduce the impact of alien species reduction plays important role for maintaining sustainable environment.

Awareness Programme:

AUH has its own clubs / society of students which helps the nearby local people for spreading awareness regarding plantation, food, nutrition, pollution, menstruation, malnutrition, deforestation etc.



15.4: Land sensitive waste disposal:

Waste disposal in AUH handled with sensitivity and responsibility to minimize environmental impact and promote sustainability. Land-sensitive waste disposal practices are essential for university to contribute positively to their local ecosystems and communities. Here are some steps AUH take for responsible waste disposal:

Waste Segregation: AUH Implement a robust waste segregation system on campus. Provide clearly marked bins for different types of waste, such as recyclables, organic waste, and non-recyclables. Education and awareness programs help students and staff understand the importance of proper segregation.

Composting: AUH Establishing composting facilities for organic waste, including food scraps, yard waste, and other compostable materials. The resulting compost can be used for campus landscaping or community gardens.

Reuse Programs: AUH Encourage the reuse of items such as textbooks, office supplies, and furniture. This not only reduces waste but also saves money for both the university and students.

Green Purchasing: When the university purchases goods and equipment, prioritize environmentally friendly

Sustainability Committees: AUH Form sustainability committees involving students, faculty, and staff to drive waste reduction initiatives and promote environmentally responsible behaviour.

Environmental Impact Assessments: When planning new construction or infrastructure projects, conduct environmental impact assessments to evaluate the potential effects on local ecosystems and take measures to mitigate them.

Heart shaped bin: In the campus heart shaped bin is established to aware students more about the environment cleanliness



15.4.1 Water discharge guidelines and standards year: 22

To treat wastewater, Amity University Haryana now has two operating sewage treatment plants (STP) and two operational effluent treatment plants.



ETP



ETP Laundry



Pump Room



Oxidation Pond



PREVENTING WATER SYSTEM POLLUTION



Free Drinking water provided :

Amity University makes a special effort to provide students, staff, and visitors with free access to safe, clean drinking water. On the university campus, there are 47 water coolers spread between the dorms, academic blocks (A, B, C, and D), AIMC, and other sites. The specifics of where the water coolers are located are given as proof.

RAINWATER HARVESTING STRUCTURE AND UTILIZATION IN THE CAMPUS

Amity University Haryana is situated in a semi-arid area with no transient water sources, so rainwater is the only source of water that is available here for groundwater recharge, which is the university's primary source of water. Since the university's inception, rainwater harvesting facilities, which are comprised of a complex network of rainwater harvesting wells dispersed throughout the campus, have been an essential part of its development plan. The watershed contour of this area is used to determine the size and location of the water harvesting infrastructure, ensuring maximum rainwater harvest.

MAINTENANCE OF WATER HARVESTING STRUCTURE BEFORE RAINY SEASON

Through the following methods, the university works to promote water efficiency and sustainability:

1. Encourage water-saving techniques among all University stakeholders.
2. Maintain a close eye on and reduce the university's water usage.
3. Native plants are planted to conserve water.
4. Encourages the planting of native trees near and around the university to save water.
5. Evaluates potential locations on campus where alternative water systems could be installed on a regular basis.
6. Continue using cutting-edge water-saving technologies like rainwater collection, water reusing, etc.

Awareness Programs:

Workshop on 'Circular Economy & Zero Waste Campus Program' Organized by Amity Centre of Excellence for Innovation in Education In collaboration with 3R and SDG Choupal on 22nd November 2022

"Awareness Week on Waste Management" Organized by Chem Club of CBFS, Amity School of Applied Sciences from 14 to 20 November 2022.

The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations.

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15 LIFE
ON LAND





AMITY
UNIVERSITY
— HARYANA —

NAAC 'A'
GRADE
ACCREDITED UNIVERSITY

REPORT ON SUSTAINABLE DEVELOPMENT GOAL

16 PEACE, JUSTICE
AND STRONG
INSTITUTIONS



YEAR 2021-22



PREAMBLE

Amity University Haryana is committed to the United Nations Sustainability Development Goal (SDG) 16 to aim for peace justice and a strong institution. The University recognizes the important of accountability across and within institutions and implemented a number of policy measures and guidelines to ensure justice, fairness and ethical behavior.

TEACHING & LEARNINGS

The University is committed to promoting Peace, Justice and Strong Institutions through various programmes and several modules contained within courses delivered.

B.A – LLB	https://www.amity.edu/gurugram/ba-llb-hons
BBA – LLB	https://www.amity.edu/gurugram/bba-llb-hons
B.Com- LLB	https://www.amity.edu/gurugram/bcom-llb-hons
LLM	https://www.amity.edu/gurugram/llm
PhD (Law)	https://www.amity.edu/gurugram/phd-law

GRIEVANCE AND DISCIPLINARY MECHANISM

The purpose of a grievance and disciplinary process is to address any concerns that may arise while an employee is employed. The relevant committee considers any act of "Misconduct" and makes recommendations for suitable action. Planning, administration, finance, and examination are all efficiently handled by the university's e-Governance. All such committees maintain records through Minutes of Meeting and ensure their effective implementation.

https://assessmentonline.naac.gov.in/storage/app/hei/SSR/105499/5.1.6_1578419459_3926.pdf (Grievance redressal committee)

UNIVERSITY GOVERNANCE MEASURES

The organizational structure lends itself to sustaining institutional capacity and education effectiveness through involvement

of stakeholders in various Committees/ Boards The following committees have different roles and responsibilities:

- 1) Planning, Development & Review: Governing Board (GB), Board of Management (BoM), Planning Board (PB), Outcome Committees (OC), IQAC, Domain-specific Internal Audit & Finance Committee
- 2) Admissions: Academic Council (AC), Admission Committee, University Research Council (URC), Departmental Research Committee (DRC) & Research Advisory Committee
- 3) Course & Curriculum Development: AC, BoS & Course & Program Review Committees
- 4) Fee: Fee Committee
- 5) Examinations: Examination Committee, Moderation Board, UFM & Results Moderation Committee
- 6) Research: AC, URC, DRC, PAC & Dissertation Committee

- 7) Fellowship and Scholarship: Scholarship Committee
- 8) Finance: FC, Purchase Committee & BoM
- 9) Placements: Central Placement Committee (CRC)
- 10) Discipline: Proctorial Board, Student Discipline Committee, Anti-Ragging Committee, Sexual Harassment Committee
- 11) Grievance : Grievance Committee
- 12) Administration : Academics Affairs (with Deans/Hols)
- 13) Culture: 24 x 7 Committee
14. Accommodation: Housing & Allotment Committee

PUBLISH FINANCIAL DATA

The University has a mechanism for internal and external audit. The University has a full-time CF&AO since the inception (ie., 2010 onward to ensure maintenance of annual accounts and balance sheets of the university and thereof.

All financial data of AUH are audited as per government rules and regulations this data is freely available in the public domain on:

https://www.amity.edu/gurugram/naac/important_documents_naac/7.1.8/audited%20annual%20report%202018-2019.pdf

PARTICIPATORY BODIES FOR STAKEHOLDER ENGAGEMENT

AUH has bodies to recognize and engage local stakeholders, including local residents, local government, local private and local civil society representatives whose duties include to Identify and engage with local stakeholders:

Through a variety of initiatives, AUH encourages regular interaction between

its staff, teachers, and students and the neighbourhood community in order to support long-term and comprehensive community development.

A total of six blood donation camps have been held, and 450 students, teachers, and staff have donated blood on average.

Health check camps for the villages living adjacent to the campus; a legal aid cell that offers legal help to the impoverished. consultations in optometry and giving the locals free eyewear. raising rural youth's awareness of "Swachh Bharat"

AMITY SCHOOL OF COMMUNICATION PRESENTS

The Role of Youth in Creating Peace.

JOIN NOW

21-09-22 | 11.00 AM

VENUE: ONLINE

Mr. Augustine Veliath
Former Communication Strategist, UNICEF

LIVE

GPS Map Camera

Gwalior, Haryana, India
8W87+VW7, Gwalior, Haryana 122413, India
Lat 28.317214° Long 76.91482°
21/02/23 12:09 PM GMT +05:30
10.55 km/h 18% 24.75° C 187° S 18.0 μT



Collecting relief material during national calamities. Amity Marathon is held each year to promote the importance of running and maintaining a healthy life style, and also carry out fund raising for social causes for NGOs such as "Save the Children", Akshaya Patra, Oxfam India and CARE. Details may be found at :- <http://www.amitygurugrammarathon.com/savethechildren/>

Teaching underprivileged children of laborers and village school, distributing blankets to the poor, activities are undertaken by student led clubs SAAKAR and UDAAN. Creating social awareness in public by street plays, with themes such as safety of women & girl child.

government of India as well as of different countries through collaborative efforts and MOUs. AUH is recognized by various government bodies including University Grants Commission (UGC), Ministry of Human Resource Development (MHRD), Bar council of India etc. The AUH research policies may be found online at https://www.amity.edu/gurugram/pdf/university_research_policy.pdf. Total Grants for research projects sponsored by the government sources year-wise during the last year in 2021-2022 total 544 project of INR 390 cr.

Example: Project Title- "Mediating Multilingualism - (in a local community context) Phase I" PI : Prof. Udaya Narayana Singh Funding Agency: University of Highlands & Islands, Scotland, UK Sanctioned Amount: INR 11,80,920





RESEARCH & PUBLICATIONS

Amity University Haryana actively participates in various research schemes of

The screenshot shows the Amity University website's 'Recognition By Statutory Bodies' page. The page features a navigation bar with links for Admissions, Amity Universe, Careers, News, Alumni, Contact, and Admission Microsite Login. Below the navigation bar, the 'RESEARCH' link is highlighted. The main content area is titled 'Recognition By Statutory Bodies' and includes a paragraph stating that Amity University has obtained recognition from various statutory bodies. Four logos are displayed: the Ministry of HRD, DISR (Ministry of Science Technology), Distance Education Council, and Bar Council of India. Each logo is accompanied by a brief description of the recognition and a 'Click here' link.

Recognition By Statutory Bodies





Whenever recognition by Statutory Bodies is required or mandatory, Amity University has obtained the recognition/approval. The following statutory bodies have recognized Amity University:

Ministry of HRD	DISR, Ministry of Science Technology	Distance Education Council	Bar Council of India
 The response of the Ministry of HRD in the Lok Sabha on the recognition of Amity University: Click here	 Amity University has been recognized as a Scientific and Research Organisation by DISR, Ministry of Science Technology, Government of India	 Distance Education Programmes accredited by Distance Education Council	 Law Programmes accredited by Bar Council of India

amity.edu/about-recognition.aspx

Admissions Amity University Careers News Alumni Contact Admission Microsite Login

ABOUT AMITY PROGRAMS CAMPUSES INFRASTRUCTURE RESEARCH HAPPENINGS **APPLY NOW 2021**

National Council of Teachers Education

Educational Programmes accredited by National Council of Teachers Education

Council of Architecture

Architectural Programmes accredited by Council of Architecture

United Nations Listing

Amity University is included in the list of Universities maintained by the International Association of Universities (IAU).

[Click here for information on United Nations Listing.](#)

[Click here to see the list](#)

The Institution of Engineering and Technology (IET)

Engineering programmes of Amity University listed under the International Accredited programmes by the Institution of Engineering and Technology (IET).





[Click Here to view the list.](#)

SUBSCRIBE

amity.edu/about-recognition.aspx

Admissions Amity University Careers News Alumni Contact Admission Microsite Login

ABOUT AMITY PROGRAMS CAMPUSES INFRASTRUCTURE RESEARCH HAPPENINGS **APPLY NOW 2021**

Recognized by Central Counselling Board

ISO 9001:2008, ISO 27001:2005, ISO 14001:2004, ISO 22000:2005 and ISO 50001:2011 Certificate from British Standards Institution (BSI)


Member of International Association of Universities

International Assembly for Collegiate Business Education

Other Accreditations

Media Campuses Admissions Other Links Download App Subscribe

Enter your email address






SUBSCRIBE

amity.edu/about-recognition.aspx

Admissions Amity University Careers News Alumni Contact Admission Microsite Login

ABOUT AMITY PROGRAMS CAMPUSES INFRASTRUCTURE RESEARCH HAPPENINGS **APPLY NOW 2021**

Eligibility of Amity University Degrees for National and International Tests for Higher Education

Like any UGC recognized Degrees of any University in India, students passing out from Amity University are eligible to sit in examinations like GATE, CAT, UPSC, GMAT, GRE, JEE etc. For example:

UPSC

Eligibility to sit in the UPSC examination is a Degree from a recognized University or equivalent.

Website: <http://www.upsc.gov.in/exams>

Amity university students are eligible to sit in UPSC.

CAT

Eligibility for CAT is a Bachelor Degree with at least 50% marks from a University established by Central or State Act.


As Amity University is a University established by the State Government, students are eligible for CAT and every year students of Amity participate in the CAT Examination.

GATE

For GATE (Graduate Aptitude Test in Engineering Examination) conducted by IITs in India, the code for Amity University is UP-011.

Many students of Amity University take part in this examination every year. One of the Amity B.Tech. Students Ranked 13 at National Level in this year's GATE, and has joined M.Tech Aerospace Engineering Program at Indian Institute of Sciences, Bangalore on a Scholarship.

GATE Website: <http://www.gate.iitb.ac.in>



SUBSCRIBE

ACADEMIC FREEDOM AND ACADEMIC FLEXIBILITY

The goal of the choice-based credit system is to better prepare students for the workforce by utilising their ability and creative talents to fulfil the demands of the fast-paced, modern corporate world. There is an extensive selection of courses available for the students to select from. By selecting classes from topics that interest them, they may then build on their areas of strength. There were 282 open elective courses available in 2018–19, one of which was a Military Training course focused on decision-making and leadership. In addition 149 value added courses were being offered to the students, including Behavioural Science, Communication Skills and Foreign Languages (French, German, Spanish, Russian, Chinese, Korean and Japanese).

HAPPENING & EVENTS

Virtual Tour of Anganwadi, Anganwadi Faridabad in Sep 2021, Students got an understanding of ground implementation of the health programs such as ICDS and immunizations through Anganwadis.

Webinar on Environment and Sustainability in Sep 2021, Helped in spreading environmental awareness and increased the level of interest of students for various issues of the environment.

Panel Discussion on Human Rights and Duties in Indian Vedic Tradition (भारतीय वैदिक

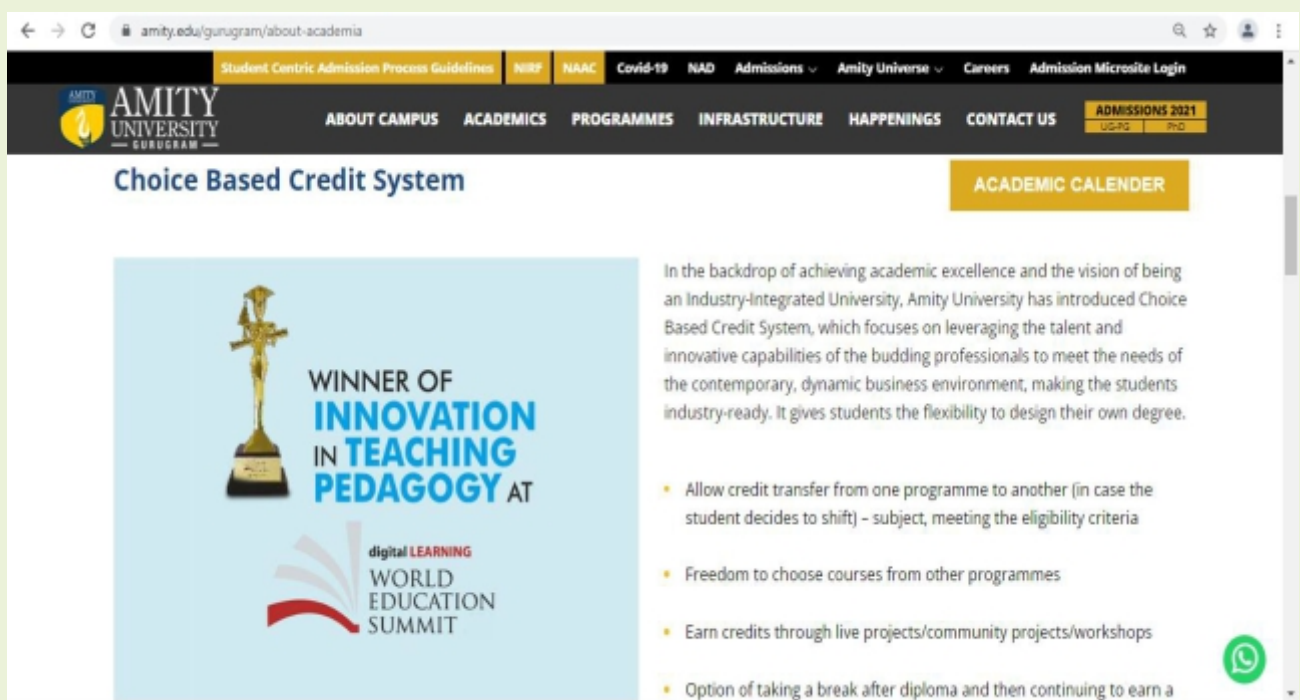
परंपरा में मानवाधिकार और कर्तव्य), in Sep 2021, by Prof. PB Sharma ,Hon'ble vice chancellor Amity University Haryana, Prof. Ramesh Kumar Pandey, Hon'ble Vice-Chancellor S.L. B. S. National Sanskrit University, Prof. Shrinivasa Varakhedi Hon'ble Vice-Chancellor Kavikulaguru Kalidas Sanskrit University Ramtek, Maharashtra, Prof. Balram Singh. Teacher-scholar UMass Dartmouth and at the Institute of Advanced Sciences (INADS), Dartmouth, Massachusetts, USA, Participants gained knowledge regarding the human rights and duties as enshrined in Indian vedic traditions All of them were of unanimous view that for any civilization to grow and survive human rights as natural rights must be protected.

Organised Earth Day 2022, on April 2022, by Dr. Rakesh Kumar Former Director Air pollution control and management, urban air quality monitoring, environmental audit, climate change and health. CSIR-NEERI, Nagpur, Dr. Smita Ahuja Founder horticulture waste Earthtree, Dr. Sunil Kumar Senior Principal Scientific Officer & Head Waste Processing NEERI, Helped the students to understand how human activities are degrading the earth and about the how helpful concepts of waste management are for a cleaner and green economy and sustainability.



"INNOVATION STRATEGY FOR UNIVERSITIES TO CREATE OPPORTUNITIES OF ENTREPRENEURSHIP IN MITIGATING ENVIRONMENTAL ISSUES" ON NATIONAL POLLUTION CONTROL DAY 02-12TH -2021

Amity School of Earth and Environmental Sciences (ASEES), Amity University Haryana along with Institute Innovation Council (IICs), takes the opportunity to celebrate National Pollution Control Day on 2 December 2021 by organizing an online webinar and panel discussion with eminent Keynote Speaker Dr. B K Sahu, Regional Manager & Head, NRDC - Intellectual Property and Innovation Centre, Innovation Valley, Vishakhapatnam, Gol on the "Topic: Innovation Strategy for Universities to Create Opportunities of Entrepreneurship in Mitigating Environmental Issues"



The screenshot shows the Amity University website page for the Choice Based Credit System. The page features a navigation bar with links for Student Centric Admission Process Guidelines, NIRF, NAAC, Covid-19, NAD, Admissions, Amity Universe, Careers, and Admission Microsite Login. The main content area is titled "Choice Based Credit System" and includes a section for "ACADEMIC CALENDER". A prominent graphic on the left side of the page reads "WINNER OF INNOVATION IN TEACHING PEDAGOGY AT" and features a trophy icon. Below this graphic is the logo for the "digital LEARNING WORLD EDUCATION SUMMIT". To the right of the graphic, there is a paragraph of text describing the system and a list of bullet points detailing its benefits. A WhatsApp icon is visible in the bottom right corner of the page.

Choice Based Credit System

ACADEMIC CALENDER

In the backdrop of achieving academic excellence and the vision of being an Industry-Integrated University, Amity University has introduced Choice Based Credit System, which focuses on leveraging the talent and innovative capabilities of the budding professionals to meet the needs of the contemporary, dynamic business environment, making the students industry-ready. It gives students the flexibility to design their own degree.

- Allow credit transfer from one programme to another (in case the student decides to shift) - subject, meeting the eligibility criteria
- Freedom to choose courses from other programmes
- Earn credits through live projects/community projects/workshops
- Option of taking a break after diploma and then continuing to earn a

The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations.





AMITY
UNIVERSITY
— HARYANA —

NAAC 'A'
GRADE
ACCREDITED UNIVERSITY

REPORT ON SUSTAINABLE DEVELOPMENT GOAL

17 PARTNERSHIPS
FOR THE GOALS



YEAR 2021-22



PREAMBLE

Amity University Haryana is built on a foundation which embodies all the qualities that have made Amity institutions world-class over the last two decades. It has instituted global standards in education, training and research with state-of-the-art infrastructure and the latest teaching methodologies. With industry-integrated curricula and collaboration with academic institutions, NGOs and Research Labs; the University trains future leaders of the corporate world by blending modernity with tradition in each of its students.

Relationship to Support the Goals

Amity University Haryana is a research and innovation driven university. It has developed strong relationships with Academic Institutions for conducting research in terms of joint Ph D and working on research projects. Presently, AUH faculty members have collaboration with Div. of Pathology, Gola, Khiri, UP, National Brain Research Centre, Manesar, ICGEB, New Delhi, Department of Applied Chemistry, Delhi Technological University, Regional Centre for Biotechnology, Researcher, Molecular Oncology Lab. Shemyakin-Ovchinnikov Institute, Dpt. of Bioorganic Chemistry, Russian Academy of Sciences, NIPGR, New Delhi, Ulster University to name a few. There are research projects funded by DBT, DST, MNRE, ICMR, Global Affairs Office. Yuan Ze University, Ministry of Textiles, Central Sanskrit University to name a few wherein faculty members have collaborated with researchers from India and abroad.

The faculty members and students are involved in clean energy research which are funded by different Government & Non- Government Agencies viz. Sustainable use of unconventional fibers of Indian Himalayas for Agro Textiles (funded by Ministry of Textiles), Development of Novel metamaterials using nanoferrite composites for microwave absorber application (funded by SERB), Metal Complexes of cyclic N-donor ligands for electro-/Photo-catalytic reduction of Carbon dioxide (funded by DST-Haryana), Green-synthesized nanoparticles



Fig 1: Nutrition Awareness program at Fazalwas village



Fig 2: Meeting with Gwalior villages Sarpanch for conducting developmental work under UBA



Fig 3: Meeting with Gwalior villages Sarpanch for conducting developmental work under UBA

dispersed liquid crystals for display applications (funded by SERB-SURE), Development of High-resolution future climate scenarios for the NCR region under climate change and urbanization (funded by SERB-SURE) and Development of Nanomaterials for High Density Application (funded by Global Affairs Office, Yuan Ze University) amounting to Rs. 20203948.

AUH is recognised by National Institute of Solar Energy as a training partner for Suryamitra Skill development program. The objective of this skill training program is to create manpower for the solar industry. A skill

development program "Integrated approach in science technology and skilling for sustainable future" funded by DST Haryana is also conducted at AUH.

Amity University Haryana is recognised as a Partnering Institution for the Unnat Bharat Abhiyan, a flagship program of the Ministry of Education. Five villages have been selected to conduct developmental work in the field of renewable energy, mental and physical health, skill development and entrepreneurship.



Fig 4: Epilepsy Awareness program at Gwalior village



Fig 5: Solar Training at Fazalwas Village under UBA

Publication of SDG Reports

No Poverty

Eradicating extreme poverty for all people everywhere by 2030 is a pivotal goal of the 2030 Agenda for Sustainable Development. As per reports, extreme poverty, defined as surviving on less than \$2.15 per person per day at 2017 purchasing power parity, has witnessed remarkable declines over recent decades.

AUH has played an important role in eradicating poverty by providing quality

education to students from all economic strata. It has created a culture of Service before self and students are engaged in transferring knowledge to kids from the slums and also help them by providing books, clothes and food. Military training camps are conducted regularly for all students of AUH to train them for the future requirements, to make them responsible citizens. Skill development training programs for staffs, lab assistants are conducted to enhance their knowledge and equip them with the skills that are required for sustaining in the ever changing economy.



Fig 6: Skill Development program organized for non teaching staff at AUH

Zero Hunger

As emphasized by the Food and Agriculture Organization of the United Nations, "Wasting less, eating better and adopting a sustainable lifestyle are key to building a world free of hunger. The choices we make today are vital for a secure future of food."

At AUH the students undergo a week long orientation program wherein they are exposed to the culture of Zero Food Waste.

There are student clubs who are involved in creating awareness among the mass regarding sustainable environmental practices. Agriculture is an integral part of AUH. Amity University Haryana houses a full fledged Herbal garden, Agrivoltaic plant, Go-Shala (Cow Shed) and farmland where all seasonal vegetables are grown. This helps students in learning the sustainable agri-technology.



Fig 7: Herbal Garden at AUH supported by Ministry of AYUSH



Fig 8: Agrivoltaic plant at AUH developed by faculty members in association with local farmers.

Good Health and Well Being

Amity University Haryana is continuously working for the betterment and upliftment of the community by conducting several social awareness programs and activities to serve the society. Paramedical professionals are indispensable pillars of global healthcare, contributing their expertise and dedication to enhance patient care and outcomes. Student's graduating from Amity Medical School of Amity University Haryana in various domains of health and allied sciences are specialized in vocational domains like Nutritionists, dieticians, optometrists, audiologists, speech language pathologists, nurses, and medical lab technologist. Considering research being an integral part of health care systems, there are many other courses offered by AMS like clinical research, public health, and stem cell technology, which could provide a strong assistance to practicing doctors and surgeons. Students also opt for Hospital Administration after successful completion of master's in public

health. All these courses help in producing many allied health professionals who can make a strong and lasting impact on the healthcare ecosystem. Recognizing and valuing their vital role is crucial for building a stronger and more comprehensive healthcare system worldwide. The University is meaningfully contributing to the SDG-3, Good Health and Wellbeing through following measures:

- Extension, Educational and Outreach Events
- Linkages with various hospitals, corporates, NGO's, wellness sector and organizations are the initiatives taken to collaborate not only for placements but also to conduct mass drives such as blood donation camps, first aid trainings etc.
- Faculty of Health and Allied Sciences have many collaborations with local, national, and international levels for prosperity of a Medical and paramedical educational institute.



- The Academic curriculum is designed in such a way which helps the students to grow professionally and achieve the skills required at their workplace. The industry integrated curriculum helps the students to receive hands-on training and interaction with the industry experts.
- Faculty of Health and Allied Sciences organizes the events which are led by students such as rallies, role plays, skits, and camps. The rehabilitation programs are organized through tele and video consultations. Other educational events are organized as webinars, panel discussions, and live videos.

Amity University with basic objective to create social awareness amongst the students. A "DIET CLINIC" is a remarkable initiative in the direction of overall health and wellbeing taken by the Department of Dietetics & Applied Nutrition in which free diet counselling is being given to various inmates including faculty, staff and students of the university on regular basis to keep them aware about the healthy lifestyle and its impact on overall health and wellness. Additionally, Free eye checkup and hearing test is also offered at Amity University by concerned departments.

Outreach initiatives are being carried out at



Quality Education

Sustainable Development Goal 4 aims to ensure inclusive and equitable education and promote lifelong learning opportunities. UNESCO the world education leaders have been laying stress on environmental education; and promoting cultivation of the 21st century skills amongst students which encompasses three key domains: Learning, Literacy and Life skills for enabling individuals to lead fulfilling and balanced lives; crucial for success in the modern world as a well-rounded, adaptable, & socially responsible individuals.

At Amity University Haryana we contribute to SDG-4 through:

1. Teaching and learning activities.
2. Cutting edge research activities
3. Institutional practices
4. Various collaborations and partnerships with eminent national and international organizations and institutions.

Teaching and Learning Activities

Amity University Haryana is committed to providing quality education to the students and foster andragogical training to its faculty members. The various programs offered at various UG and PG levels are related to educating students on sustainability besides the core subjects. Value added courses, open electives provides students a holistic learning experience at AUH.

Research at AUH

Amity University Haryana strategic plan focuses on maintaining high quality research with substantial international, national, and local impact. The research conducted at the university gives impetus to address societal needs and create innovative intellectual property rights which can be used to cater to the sustainability goals of the rural and urban community.

AMITY UNIVERSITY GURUGRAM NAAC GRADE A ACCREDITED UNIVERSITY

AUH's 3 scientist in Top 2% of world scientists

Stanford University Ranking List 2022

Prof. (Dr.) Indu Shekhar Thakur Professor & Director, Amity School of Earth & Environment Science Hostel Centre of Excellence in Bio-Energy	Prof. (Dr.) Abul Thakur Director, Amity Centre for Nanotechnology, Amity School of Engineering and Technology, Nanoscience and Nanotechnology	Dr. Kamal Kumar Assistant Professor Department of Mathematics Amity School of Engineering and Technology

AUH houses an air quality monitoring station established in collaboration with the Indian Institute of Tropical Meteorology (IITM-MoES), Pune. It has a centralized instrumental research facility which is created by funding from DST FIST program and other research funding awarded to faculty members by various funding agencies.

CIRF
Central Instrument Research Facility


AMITY UNIVERSITY

The central instrument research facility (CIRF) is housed at Amity University Haryana, Gurugram provides a central facility of latest and advanced analytical instrument for research and for promoting interdisciplinary research. Instruments are manned by qualified personnel. This facility is available for Amityans and other academic research institutions, industries and organizations.


Gender Equality

Education is a lifelong process that is vital to India's economic and social progress. Gender inequality is a factor which is a major factor affecting the sustainable development goals of a country. At Amity University Haryana, exclusion in education is created when gender overlaps with other disparities such as race, ethnicity, class, disability, and geography. There is no discrimination based on curriculum, learning materials, teaching

pedagogy, teacher education, management, administration, assessment, and monitoring and evaluation processes in the educational system at AUH. The HR policy followed at AUH, do not discriminate faculty or staff based on the gender. The hiring of faculty and staff is done based on merit only. At AUH to ensure that the education system supports gender-equitable experiences for all, targeted policies, practices, and research are conducted to maintain the holistic teaching learning experience at AUH.



on the occasion of
International
Women's Day



**Amity School of Liberal Arts,
Amity University Haryana**

ORGANIZING
PANEL DISCUSSION ON
GENDER EQUALITY TODAY FOR A SUSTAINABLE TOMORROW

8th March 2022 | 3:30 PM to 4:30 PM
VENUE: DLG 07, B-BLOCK BASEMENT

PANELISTS

Prof. Hemant Kumar Jha, Coordinator M.A. English, ASLA, AUH
Dr. Vinod Kumar, Assistant Professor, ASLA, AUH
Dr. Sapna Sharma, Assistant Professor, ASLA, AUH
Dr. Shradhanvita Singh, Coordinator Political Science, ASLA, AUH
Dr. Pooja Thakur, Coordinator History, ASLA, AUH

COORDINATORS

Dr. Supriya Sanju.
Coordinator, Amity Centre for Sanskrit and Indic Studies, Amity School of Liberal Arts

Dr. Abhishha Singh
Assistant Professor, Amity School of Liberal Arts

Clean Water and Sanitation

Amity University Haryana uses subterranean bore wells, to extract all the water required for domestic and drinking purposes on campus. Recycled water is used for irrigation, gardening, chiller plant cooling towers, and civil construction projects.

An overview of campus water consumption and management is provided below:

- 1. Water Source:** The university primarily relies on underground bore wells to extract water for domestic and drinking purposes on its campus. Water from these bore wells is stored in six underground water tanks, each with a capacity of 50,000 liters. The university extracts approximately 3 lac (300,000) liters of water daily from these bore wells.
- 2. Recycled Water:** In addition to bore well water, recycled water is used for purposes such as flushing, gardening, cooling towers for chiller plants, and civil construction projects. This is a sustainable

practice to reduce the demand on fresh groundwater.

- 3. Water Usage:** The university uses around 4 lakh (400,000) gallons of water each day, with the majority of this water coming from the bore wells. The total water usage includes water for domestic, drinking, and other campus needs.
- 4. Overhead Tanks:** The overhead tanks on campus are equipped with sensors that detect when water levels are low and automatically refill them with water from the bore wells. This ensures a continuous and reliable supply of water for the university's 6000 people, including staff, faculty, housekeepers, and students.

Efficient water management is crucial, especially in regions where groundwater resources are relied upon for daily needs. Monitoring water usage, promoting recycling, and installing water meters are all steps in the right direction to conserve and manage water resources responsibly.



Affordable and Clean Energy

The University is relentlessly contributing to transform the campus into a clean and green campus thereby contributing to the SDG 7 through following measures:

- Research, educational programs and collaborations focused on clean energy practices
- Green campus initiatives, measuring energy wastes & mitigation plan, energy

efficient technology adoption

- Supporting Government of India in Renewable Energy policy implementation
- Integrating energy efficiency measures into University's policy framework
- Promoting energy conservation and energy efficiency through various outreach programs to local and regional community.



Front-view with data display of the AQMS and rack-mounted PML Gas Analyzers and



Community based research work in clean energy translation is one of the major initiative taken by AUH. Under Unnat Bharat Abhiyan, AUH has taken initiatives to educate people from villages regarding the sustainable energy sources and the innovative technologies.



Decent Work and Economic Growth

Amity University Haryana provides decent work space to all faculty, and staff. There are more than 200 non-teaching staffs who are employed from the local community. They are provided with skills training as per the job requirement. They are employed in different job roles based on their skill set starting from Lab Assistant, Office staff, Gardener, drivers, cleaning staff, and also for Operations & Maintenance of the university facilities. They are even provided on time salary, uniform and provided free medical facility on-campus in the AUH medical school. This has helped in improving the socio economic condition of people in the nearby five villages.

Industry Innovation and Infrastructure

Amity University Haryana, a research and innovation driven University, is truly committed to the cause of 'innovation and entrepreneurship'. The 'Vision' of Amity University Haryana (AUH) is *"to be a world class centre of creativity and innovation and to contribute to the progress of humanity through excellence in education, industry and*

society relevant research and extension services."

The University is committed in **integrating education with human values**, in pursuit of research, nurturing innovations, development of innovative products and innovated systems in an environment of learning. The competent pool of 346 dedicated full time faculty members, experts in their field, is strongly committed to the cause of research and innovation.

Directorate of research is responsible for creating repository of all the innovation ideas, research and publications at AUH. Central Instrumental Research Facility, Centres of Excellence, Amity Patent Cell, Various funded Research Labs are involved in cutting edge research and development. Overall research ecosystem of the University provides an excellent opportunity for setting-up start-ups and facilitate in nurturing the innovation culture of the university and act as an accelerator of commercialization of the research outcomes of the University and also be advantageous for the entrepreneurs to connect them with industry, society and government entities and achieve maximum efficiency in the development of companies.



Reduced Inequalities

Amity University Haryana provides equal opportunity to all individuals based on the HR Policy Manual which is in place since its inception in 2010 and revised in 2021. Based on the merit and screening by the committee, teaching and non teaching staff are employed in the university. To date there are

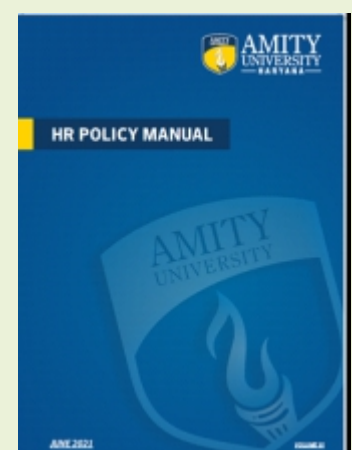
516 male and 240 female employees which include both teaching and non teaching staff and faculty members.

Amity University Haryana also provides equal opportunity to all students and there is no discrimination made based on caste or gender.



An extract from the HR Policy Manual regarding “EQUITY AND INCLUSIVITY”

AUH, set up in 2010, has now emerged as a young and vibrant campuses, and has been able to recruit some of the best minds because of its Three-Tier HR policy of selecting faculty and staff without regard to race, caste, creed, religion, ethnic origin, ancestry, gender and linguistic identity and irrespective of disability, age, protected status, genetic information, military service or other identities. It is important to endorse the goals of providing equal opportunity and affirmative action within the University, and to ensure the ethos of diversity in the AUH so that the University community is able to advance the academic purposes of the University.



Sustainable Cities and Communities

The population of India is increasing constantly. There is a need to build modern, sustainable cities. Goal 11 is about using new, intelligent urban planning to create safe, affordable and resilient cities with green and culturally inspiring living conditions.

Amity University Haryana is committed to the United Nations Sustainability Development Goal (SDG) 11 to aim for Sustainable cities & Communities. This document summarizes some of the initiatives taken by the AUH towards addressing this.

In order to minimize any negative environmental impact of its operations, the University is conscious of its obligations to conserve the environment and adheres to the

sustainable development concept. Since its establishment, the institution has ensured its growth is in keeping with the principles of environmental justice by caring for its resource base, which includes native vegetation, the water environment, and architectural design. As a result, the university regions' total output has improved relative to its surroundings. University buildings naturally incorporate passive green elements, such as sunken areas designed to lower summertime temperatures.

Amity conduct research/filled patents, copyrights, organised events and offer courses on sustainable urban planning and renewable energy. Amity has collaboration with local community, govt and businesses to create and promote sustainable solutions.

Sustainable stay at campus



Responsible Consumption and Production

Amity University Haryana is committed to promote sustainable management practices and efficient use of resources to deliver responsible consumption and production patterns through its operations by implementing sustainable policies and practices. University Waste Management Policy places a strong emphasis on recycling and reusing various waste types in order to save natural resources, safeguard public health and the environment, decrease toxicity, and minimise landfilling and/or incineration

Garbage Shed



Open Area Dustbin



The organic waste collected from farm house is disposed through bio gas production and composting infrastructure available at campus. The by-products are further utilized locally for heating and manure.



The University is committed to promoting sustainable consumption and production through several modules contained within courses delivered like MBA sustainability management, M.Tech. (Solar & Alternate Energy), M.Sc. (Renewable Energy) M.Tech (Atmospheric Technology and Climate Management), M.Sc. (Environmental Sciences and Management), B.Sc. (Hons) - Earth Sciences etc.

Amity faculty and students are committed to do research on the same and published articles in renowned journals, filled patents, and organised events to aware community.

Climate Action

Amity University Haryana is strongly committed to the goal of environmental sustainability and playing an impactful role to ensure compliance in terms of SDGs. The quality and scale of Amity University Haryana's efforts to transform it into a sustainable campus have been duly recognized as India's first University and Asia's 2nd to earn LEED Platinum Certificate from US Green Building Council and among top 200 global campuses in previous Impact Ranking. The University is meaningfully contributing to SDG – 13 i.e. Climate Action, through the following important measures and frameworks:

Nature Just Development plan of the University to make it a Green Campus

Low Carbon energy transformation

Incorporating Environmental and Sustainability components in imparting education

Integrating climate change measures into university policies, strategies, and planning

Collaborative education and research to address environmental and climate change impacts, adaptation, impact reduction, and mitigation.



Promoting environmental consciousness and practices through various outreach programs to the local and regional communities, thus benefiting the society and nation.



Life Below Water

Amity University Haryana is committed to the Sustainability Development Goal 14 to conserve life below water. Our faculty and students are actively involved in research work in this field and we have as many as 5 Publications related to this SDG in 2021-2022. AUH has a water sensitive waste disposal policy available at https://www.amity.edu/gurugram/pdf/amity_university_haryana_ssr_cycle1.pdf. A proper procedure is followed for segregation of dry and wet waste at source itself followed by collection and disposal, without compromising sanitation and hygiene. A very effective waste collection infrastructure is maintained for segregation of waste. A small recycling unit in form of composting and biogas unit are also maintained to supplement in house requirements of organic manure and energy need. University discourages uses of plastic; particularly single use plastics in campus. There are two authorized vendors M/s Arya Pvt Ltd. And M/s Resource E waste Solutions Pvt Ltd to dispose solid wastes like tube lights, glass batteries etc.). AUH has a well defined policy on Environmental Consciousness and Sustainability Policy, under which reduction and rational use of plastic is one important aspect. It is available on university website at <https://www.amity.edu/gurugram/naac-document.aspx>. (Under WEP-AUH Wellness Policy)

Life on Land

Amity University Haryana is committed to the Sustainability Development Goal 15 to conserve life on land. Our faculty and

students are actively involved in research work in this field and we have high impact Publications related to this SDG in 2021-2022. Events related to sustainable use of land are regularly conducted. Examples are webinar entitled "Earth Day 2022: Restore Our Planet" conducted. To maintain biodiversity of current ecosystem we have a herbal garden and on campus organic farms. The production of the organic farm was (i) pulses and legumes, (ii) wheat and cereals, (iii) spices and herbs and (iv) potatoes. There is a dairy on campus and milk production from this was approx. 90000 liters.

Peace, Justice and Strong Institutions

Amity University Haryana is committed to the United Nations Sustainability Development Goal (SDG) 16 to aim for peace justice and a strong institution. The University recognizes the important of accountability across and within institutions and implemented a number of policy measures and guidelines to ensure justice, fairness and ethical behavior. The organizational structure lends itself to sustaining institutional capacity and education effectiveness through involvement of stakeholders in various Committees/ Boards.

Grievance redressal committees maintain records through Minutes of Meeting and ensure their effective implementation.

https://assessmentonline.naac.gov.in/storage/app/hei/SSR/105499/5.1.6_1578419459_3926.pdf

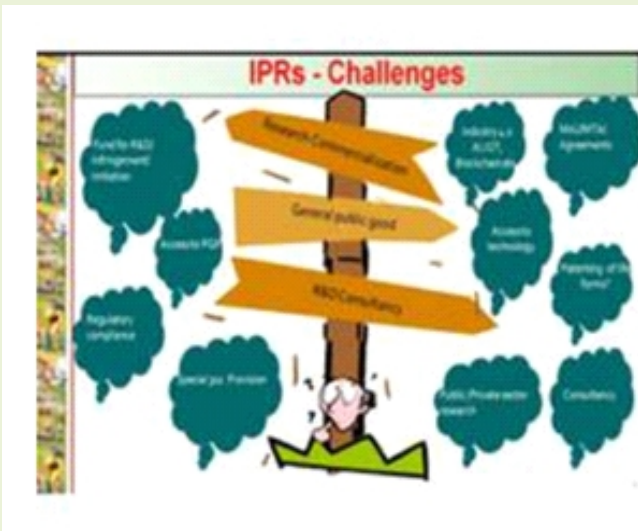
The University is committed to promoting Peace, Justice and Strong Institutions through various programmes.

All financial data of AUH are audited as per government rules and regulations this data is freely available in the public domain on:

https://www.amity.edu/gurugram/naac/important_documents_naac/7.1.8/audited%20a

[nnual%20report%202018-2019.pdf](#)

AUH has bodies to recognize and engage local stakeholders, including local residents, local government, local private and local civil society representatives.



MEANINGFUL EDUCATION AROUND THE SDGS

The University has a commitment to provide meaningful education around the SDGs across the university through various programs & courses, extra-curricular & co-curricular activities and other outreach community activities. The University is both dedicated programmes and courses covering various aspects of SDGs. MBA and Executive MBA (Sustainability Management) is focus on producing sustainable change leaders for industry <https://www.facebook.com/AmityUniversityGurgaon/videos/1026133524597305/> M.Tech (Solar and Alternative Energy) and M.Sc (Renewable Energy) is focused on SDG 6,7 & 13. A minor specialisation elective is offered to all Undergraduate (UG) students of university. Environmental Science is compulsory course for all UG students. Further, various programmes such as Science, Engineering, Architecture, Nursing, Health, Fine art, Entrepreneurships (sustainable startups) etc also covers courses relevant to SDGs.

University organises various events to give insightful experience to students pertaining to various issues related to health, mental well-being, Environment and Climate, Gender Diversity, Economic issues, and topics pertaining to all other SDGs <https://www.amity.edu/gurugram/events> Various aspects of sustainability are taught through dedicated programmes and courses covering various aspects of sustainability. The University is actively engaged in various outreach educational activities through its students, alumni and faculty which are contributing significantly to SDGs goal achievement in wider community such as free health check-up camps, awareness programs for local community, supporting underprivileged and poor people, Free Blook

test camp, Health Awareness Rally, School outreach activities, Pulse Polio Immunization Programme, Free COVID 19 Vaccine camps etc are regular part.

University organises webinars, workshops, conferences to give students insight for real world expertise in strategic renewable energy, climate, water, good air, Health & Wellbeing, skills, education, etc for almost all the disciplines as well as depth understanding in various fields such as solar, wind energy, biogas & biomass etc. Students learn through classroom as well as from these extracurricular activities and working to enhance life of nearby societies, to prepare them as skilled work force.

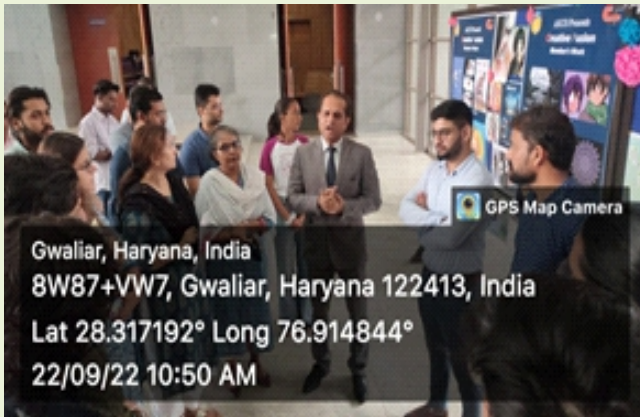
<https://www.amity.edu/gurugram/mtech-solar-and-alternate-energy>



<https://www.amity.edu/gurugram/naac/1.2.1%20new%20courses.pdf>

<https://www.amity.edu/course-list.aspx?fd=Sustainable%20Development&Programs=Post%20Graduate>

Co-Curricular and extracurricular activities outside classroom: this learning resource gives information about the Goals, their complexity and strategies for achieving them, ways students can contribute and stresses the importance of working together to achieve them. They relate justice, equity, and sustainability with ideas on combine working themes and by providing environmental education, which teaches many disciplines Topics include reducing waste, cooperation, our links with others, diversity, and local and national news.

Through outreach programs, students make connections between the local and share their learning with others








NATION AND NATIONALISM 2022

Dare To Write.

NATIONAL ESSAY WRITING COMPETITION
 AMITY LAW SCHOOL

Participation Open for All

SUSTAINABLE SPECIFIC PROGRAMMES & COURSES

- A) Programmes Dedicated to Sustainability
- B) Minor Specialization Elective Track offer to all Under Graduate Programmes
- C) Compulsory Course for all Under Graduate Programme

A) Programmes Dedicated to Sustainability: -

Sr No	Programme Name	Level	URL
1.	MBA (Sustainable Management)	Post Graduate	https://www.amity.edu/gurugram/mba-sustainability-management
2.	Executive MBA (Sustainable Management)	Post Graduate	https://www.amity.edu/gurugram/executive-mba-sustainability-management
3.	M.Tech. (Solar & Alternate Energy)	Post Graduate	https://www.amity.edu/gurugram/mtech-solar-and-alternate-energy
4.	M.Sc. (Renewable Energy)	Post Graduate	https://www.amity.edu/gurugram/msc-renewable-energy
5.	M.Tech (Atmospheric Technology and Climate Management)	Post Graduate	https://www.amity.edu/gurugram/mtech-atmospheric-technology-and-climate-management
6.	M.Sc. (Environmental Sciences and Management)	Post Graduate	https://www.amity.edu/gurugram/msc-environmental-sciences-and-management
7.	B.Sc. (Hons) - Earth Sciences	Under Graduate	https://www.amity.edu/gurugram/bsc-hons-earth-sciences
8.	Ph.D. (Earth and Environmental Sciences)	PhD	https://www.amity.edu/gurugram/phd-earth-and-environmental-sciences

B) Minor Specialization Elective Track offer to all Undergraduate Programmes

Sl. No.	Track with details of courses	No of credits to be earned for getting a minor degree	Prerequisites if any
1.	<p>Climate Science Semester 1- AST2151- Basics of Climate Science Semester 2- AST2251- Introduction to Earth System Science Semester 3- AST2351- Cloud Microphysics and Chemistry Semester 4- AST2451-Climate Change: Impact, Vulnerability and Adaption Semester 5- AST2551- Primer of Oceanography Semester 6- AST2651- Fundamentals of Climate Variability and Modeling</p>	18	No prerequisites
2.	<p>Disaster Management & Sustainable Built Environment Semester 1-DSM2151-Introduction to Disaster Management Semester 2-DSM2251-Resilience Building for Built Environment Semester 3-DSM2351-Emergency Management Semester 4-DSM2451-Rehabilitation Reconstruction and Recovery Semester 5-DSM2551-Climate Change Adaptations and Sustainable Development Semester 6-DSM2651-Geoinformatics in Disaster Management</p>	18	No prerequisites
3.	<p>Dietetics & Nutrition Semester 1-DAN2151-Principles of Nutrition Semester 2-DAN2251-Family Meal Management Semester 3-DAN2351-Basics Dietetics Semester 4-DAN2451-Advanced Dietetics Semester 5-DAN2551-Community Nutrition Semester 6-DAN2651-Food Chemistry</p>	18	No prerequisites
4.	<p>Environmental Management Semester 1- ENV2151- Environmental Studies-I * Semester 2- ENV2251- Environmental Studies-II * Semester 3- ENV2351-Environmental Pollution and Waste Management Semester 4- ENV2451-Environmental</p>	12 (Available from Sem-3, Total Credits: 12) *	No prerequisites

	<p>Management and Industrial Safety</p> <p>Semester 5- ENV2551-Environmental Economics and Globalization</p> <p>Semester 6- ENV2651-Sustainable Development Practices</p>	<p>mandatory for all undergraduate courses and is taught in three different schemes during first year</p>	
5.	<p>Entrepreneurship</p> <p>Semester 1-MGT2152-Orientation Programme in Entrepreneurship</p> <p>Semester 2-MGT2252-Exploring Business Opportunity Semester 3-MGT2352-Developing a Business Model</p> <p>Semester 4-MGT2452-Translating Business Model into Startup Semester 5-MGT2552-Advanced Programme in Entrepreneurship: Growth Semester 6-MGT2652-Advanced Programme in Entrepreneurship: Expansion</p>	18	No prerequisites
6.	<p>Environmental Health & Climate</p> <p>Semester 1-AST2152-Linkages between Environment and Health</p> <p>Semester 2-AST2252-Climate Change and Implications on Public Health</p> <p>Semester 3-AST2352-Diseases in Contemporary Society</p> <p>Semester 4-AST2452-Air, Water and Soil Pollution, Environmental Health Professions</p> <p>Semester 5-AST2552-Ground-based and Satellite Remote Sensing</p> <p>Semester 6-AST2652-Instrumentation Lab</p>	18	No prerequisites
7.	<p>Human Rights</p> <p>Semester 1- LAW2152-Concept and Theoretical Understanding of Human Rights</p> <p>Semester 2- LAW2252-Systems, Organizations and Instruments of Human Rights</p> <p>Semester 3- LAW2352-Contemporary Human Rights Situations and Issues</p> <p>Semester 4- LAW2452-Specific Themes in</p>	18	No prerequisites

	Human Rights Semester 5- LAW2552- Legislation Themes in Human Rights Semester 6- LAW2652-Report Writing and Thesis Preparation (Human Rights)		
8.	Polymer Technology Semester 1-PTE2151- Polymerization Semester 2- PTE2251-Waste Plastic Recycling Semester 3-PTE2351- Polymer Technology Semester 4-PTE2451- Rubber &Tyre Technology Semester 5-PTE2551-Polymeric Nano Composites Semester 6-PTE2651-Bio-Medical Plastics	18	Physics,Chemistry , Maths/Biology in class 12 th
9.	Renewable Energy Semester 1-SAE2151- Renewable Energy Conversion Systems Semester 2-SAE2251- Introduction to Solar Thermal Engineering Semester 3-SAE2351- Introduction to Solar Photovoltaic Semester 4-SAE2451- Energy from Wastes Semester 5-SAE2551- Renewable Energy for Heat Applications Semester 6-SAE2651- Energy Audit and Energy Management	18	No prerequisites

C) Compulsory Course for all Under Graduate Programme:- Environmental Studies is mandatory for all undergraduate courses and is taught in three different schemes during first year.

[https://www.amity.edu/gurugram/naac/1.3.2%20value_added_courses_manual/1.3.2%20value_added_courses_manual/environmental%20studies%20-%20syllabus%202018%20\(all%20ug\).pdf](https://www.amity.edu/gurugram/naac/1.3.2%20value_added_courses_manual/1.3.2%20value_added_courses_manual/environmental%20studies%20-%20syllabus%202018%20(all%20ug).pdf)

Sustainable development is the pathway to the future we want for all. It offers a framework to generate economic growth, achieve social justice, exercise environmental stewardship and strengthen governance.

-Ban Ki moon

The United Nations Sustainable Development Goals (SDGs) are the focus of Amity University Haryana of Eminence. The four pillars of our approach to the SDGs are research, teaching, basic institutional practices, and collaborations.

17 PARTNERSHIPS FOR THE GOALS

