



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 उच्चस्वित विश्वविद्यालय के प्राध्यापक और अतिथि • सोमस्य • विश्वविद्यालय कादास

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। वहाँ 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>)

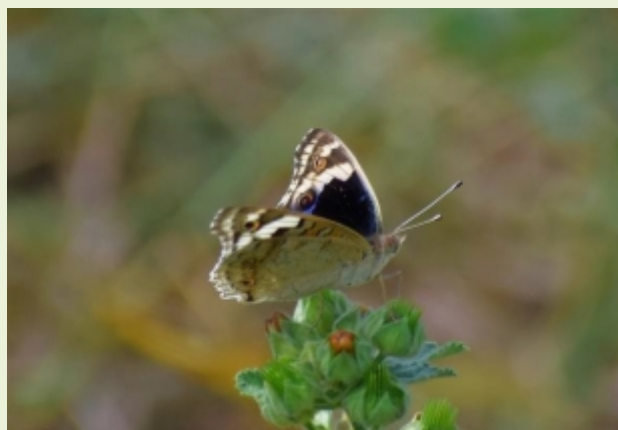
COURSES COVERING SDG

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

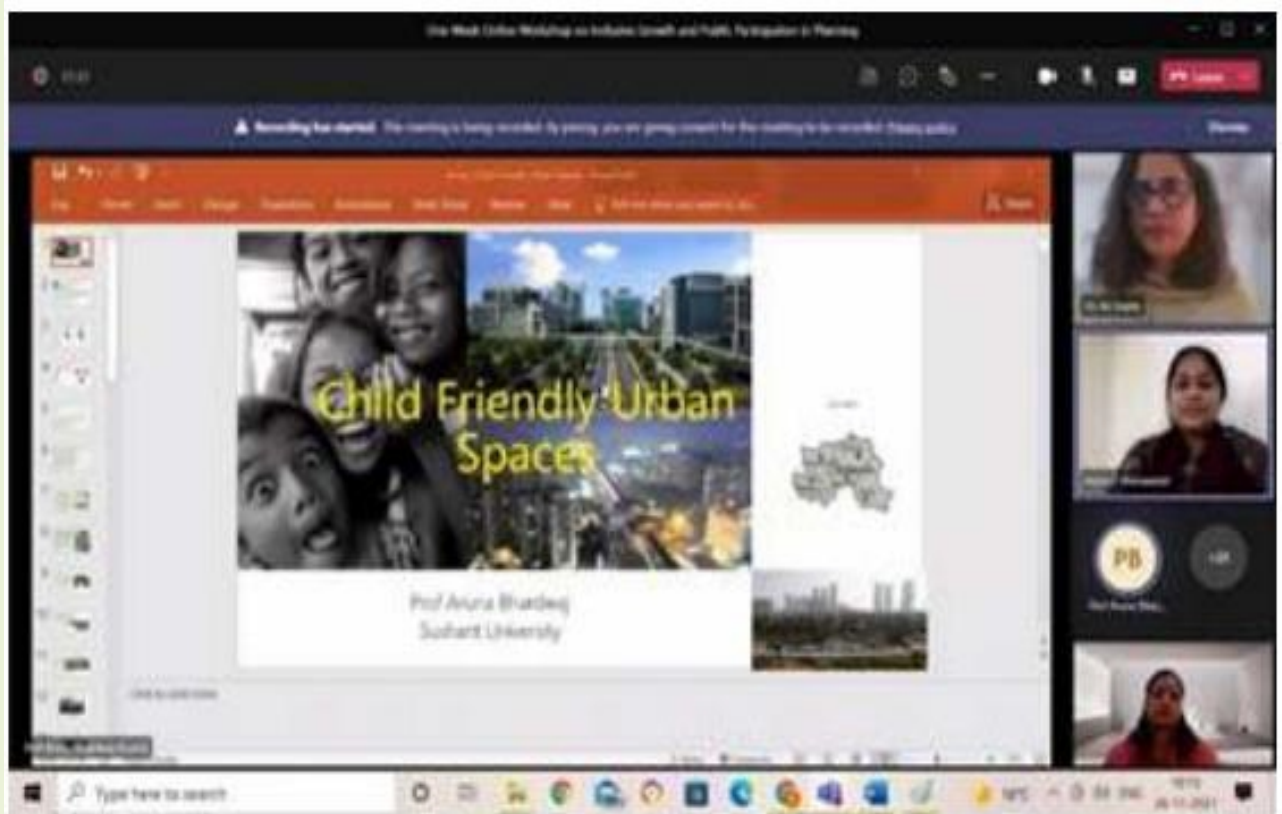
Authority, Dr Sudhakar Shukla Head, School of Geo-informatics & Scientist Remote Sensing Applications Centre, U.P., Lucknow, Dr. Sweta Baidya Consultant, NIDM Dr. Kopal Verma Junior Consultant Geography, Urban and Regional Planning NIDM Dr. P P Nageswara Rao Outstanding scientist ISRO (Rtd) organised 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.

