Amity Academic Staff College
Organizes
Five Days On-Line Faculty Development Programme
On
“Advances in Teaching and Research in the Field of Green Technology and UN Sustainable Development Goals”
(Under GURU-DAKSHTA Faculty Induction Programme (Module 9: Environmental Consciousness and Sustainable Development Goals))
From
Date: 1<sup>ST</sup> -5<sup>TH</sup> June 2021
# PROGRAMME SCHEDULE

**Faculty Development Programme**

*Advances in Teaching and Research in the Field of Green Technology and UN Sustainable Development Goals*

**Day 1: 01/06/2021 (Tuesday)  Inaugural Ceremony**

<table>
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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>11:30-11:35pm</td>
<td>Lighting of Lamp &amp; Saraswati Vandana</td>
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<tr>
<td>11:35-11:50pm</td>
<td>Welcome Address by Dr. S.P. Singh, Director ASNRSD &amp; Manju Ranjan Rawat (Joint Coordinator, AIES)</td>
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<tr>
<td>11:50-12:00pm</td>
<td>Introduction to FDP by Dr. Renu Dhupper, Joint Coordinator, AIES</td>
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<tr>
<td>12:00-12:05pm</td>
<td>Address by Prof. Tanu Jindal, Group Additional Pro-Vice Chancellor (R&amp;D), Amity University Uttar Pradesh, India</td>
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<td>12:05-12:10pm</td>
<td>Address by Prof. D. K. Bandyopadhyay, Chief Advisor FPO/Chairman, Amity Law School, Mentor, Amity Institute of Environmental Sciences, Amity University Uttar Pradesh, India</td>
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<td>12:15-12:25pm</td>
<td>Address by Prof. (Dr.) Balvinder Shukla, Vice Chancellor, Amity University Uttar Pradesh, India</td>
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<td>12:25-12:45pm</td>
<td>Address by Guest of Honour Prof. (Dr.) Anil K. Gupta, Professor &amp; Head of Division, National Institute of Disaster Management, Ministry of Home Affairs, Government of India <em>Topic: &quot;Ecosystems, Disasters and Development in Post-2021, and Context to Pandemics&quot;</em></td>
</tr>
<tr>
<td>12:50-12:55pm</td>
<td>Address by Guest of Honour Mr. David W. Everhart, Co-Founder &amp; CEO, Ionis International (London, UK)</td>
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<tr>
<td>01:00-01:20pm</td>
<td>Vote of Thanks by Prof. (Dr.) Sujata Khandai, Dy. Dean (Academics) &amp; Director, ACCF, Amity University, Noida</td>
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<td>01:20-02:00pm</td>
<td>LUNCH</td>
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**Program Coordinators:**

1. Dr. Renu Dhupper, Joint Coordinator, AIES, rdhupper@amity.edu 9810804964
2. Dr. Manju R Rawat, Joint Coordinator, AIES, mrranjan@amity.edu 9868966482
3. Dr. Ambrina Sardar Khan, AP-II, AIES, askhan@amity.edu, 8586069760
4. Dr. Maya Kumari, AP-II, ASNRSD, mkumar@amity.edu 9873658891
5. Dr. S. P. Singh, Director, ASNRSD, spsingh12@amity.edu 9870391654

**Inaugural Session:**

The Five Days On-Line Faculty Development Programme On “Advances in Teaching and Research in the Field of Green Technology and UN Sustainable Development Goals” (Under GURU-DAKSHTA Faculty Induction Programme (Module 9: Environmental Consciousness and Sustainable Development Goals) was started from June 1, 2021. Total 381 people have registered for the event and 361 attended the event on the first day.

![](image1.png)
Welcome Address:

Presiding the inaugural of the Faculty Development Programme, Dr. Ambrina Sardar Khan, Assistant Professor, Amity Institute of Environmental Sciences, AUUP on behalf of Hon’ble Founder President Sir, Hon’ble Chancellor Sir and Hon’ble Vice Chancellor, welcomed all the respected dignitaries and the participants of the Faculty Development Programme. She gave a brief introduction of all resource persons and about Amity University and FDP. The event started with the curtain raiser followed with the invocation of Goddess Saraswati by rendition of Saraswati Vandana and the lighting of the lamp of knowledge in virtual mode.

Prof. S. P. Singh, Director, ASNRS

He welcomed all the panelist, eminent participants, Hon’ble Vice chancellor, Dr. D.K. Bandyopadhyay and Dr. Tanu Jindal and thanked them for sparing their time for FDP, he also welcomed all the respected dignitaries and the participants of the Faculty Development Programme. He talked about the Overview of SDGs. He said that if we want to restore our environment, the green technology is the only way out and it is the time that we focus on the green technologies. He emphasized on the role of the stakeholders, who are nonetheless but the teachers. He also congratulated the entire organizing team of FDP and wished the success of the program.
She welcomed all the dignitaries, participants for having spared their time and thanked the revered guides & experts, colleague from connected institution. She has emphasized how important these sustainable development goals are and how we can achieve them with the help of the knowledge we gain from these five days FDP program. She said that in the light of growing global problems, countries need to employ technologies and approaches towards economic activity that are environmentally less harmful and that preserve resources for future generation. This FDP is one of the initiatives.

Introduction of the FDP

Dr. Renu Dhupper, Joint Coordinator, AIES:

Addressing to more than 350 participants are attending the FDP from all over the country Dr. Dhupper explained about the Objectives, Expected Learning Outcomes and Themes/Focus Areas of the FDP. She mentioned the importance of FDP that how it will help the participants to build sensitivity and develop awareness on Green Technology and Sustainable Development Goals (SDG) among participants, to foster skills in thinking, reasoning, enquiring, and making decisions about the environment and world around them, to promote critical evaluation of the status and future potential of India about SDG. At the end of the module participants will be able to: Appreciate the role of Environmental Consciousness and SDG for a future society., Identify their critical role in the march of nation towards attaining SDG., realize this role by appropriately integrating SDG into their teaching and research.
Prof. Tanu Jindal, Group Additional Pro-Vice Chancellor (R&D), Amity University Uttar Pradesh:

She addressed the gathering and welcomed all the dignitaries and participants. She gave a presentation about green technology for sustainable development. Going green means developing a new technology. She spoke about circular economy and sustainable development, Emerging Green Technologies (EGTs), with respect to Circular Economy and Sustainability, about industry leaders in key sectors like cars, aviation, consumer goods, food and drink, household products clothing etc. She also gave examples of the different companies related to key sectors like BMW-Germany, Electrolux, Nestle-Switzerland, H & M and Levi Strauss and company. She also appreciated the entire team of FDP.

Prof. D. K. Bandyopadhyay, Chief Advisor FPO / Chairman, Amity Law School, Mentor, Amity Institute of Environmental Sciences, Amity University Uttar Pradesh:

He said that UGC came up with the 11-quality mandate. One of the quality mandates is GURU-DAKSHTA. What are the activities to be done in those mandates and manifestation is that we are successfully implemented it and all thanks and credit goes to our Hon’ble Vice Chancellor. This is all due to tremendous amount based on Hon’ble Founder President and Hon’ble Chancellor.

He has given definition of Sustainable development Goal by giving examples. He said Development states that Humanity could make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs. He talked about the definition of Sustainable development most provided from “Brundtland Report”. Brundtland Report: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”. The Board of Sustainable Development of US, National Science of Academic. The basic aim of the report was to clear the definition of sustainable goals by four basic points: what should we sustain, what should we develop, and how long should it all take. He also Introduced the four pillars of sustainability: Human, Social, Economic and Environmental. He appreciated and congratulated all the team of FDP. He also shows desire of having more FDPs.
Prof (Dr.) Balvinder Shukla, Hon’ble Vice Chancellor, Amity University Uttar Pradesh:

She appreciated and congratulated all the team for organizing such important and professional program for the faculty development. She said that the real sustainable goal is the mandate which we all contribute for attaining the sustainable development goals. She has talked about how the environmental shift is happening and its need immediate attention of researchers and academicians. She was hopeful that the five days FDP will give more ideas of research and green technologies in the coming time. She has congratulated the entire team of NRES domain and wished to see many more event like this in future.

Prof. (Dr.) Anil K. Gupta Prof. Professor & Head of Division, National Institute of Disaster Management, Ministry of Home Affairs, Government of India

He was the Guest of Honour for the FDP. He talked about Ecosystems, Disasters and Development in Post-2021, and Context to Pandemic. He said that first of all, questions are important. For any kind of academic, research and development, questions are most important. We mostly ask the student to frame the question. He spoke about “environmental awakening” journey in 1972 with UN conference on human environment. He gave some examples related to Bhopal disaster. How it took place. All legal frameworks came after Bhopal disaster. We will need to approach, promote green technology and ecofriendly culture not only as a luxury or fashion or self-appreciation, but the green technology, eco friendliness and environmental safeguards is needed to be promoted as a basic requirement of human sustenance and sustainability.
Mr. David W. Everhart, Co-Founder & CEO, Ionis international (London, UK)

He was the Guest of Honour of FDP. He spoke about Integrative global leadership. Next generation leader’s must be inclusive and global to solve the climate crises.

He explained about his studies and work. He said that the world is more volatile. He talked about VUCA +DI (uncertain, complex, ambiguous (VUCA) + diverse and interdependent). He said that CAUVID (COVID) reality needs a refreshed leadership approach. Preparing the next generation for requires a shift from predominance knowledge focus to a mindset focus. The next generation needs mystery of three domains i.e. Inclusion, sustainability, leadership. He explained about value and essential mindsets for integrative global leaders. SDGs that integrative global leadership supports. He discussed about Amity University Values. What is Amity role in shaping the values of Amity’s graduates. What values do you want Amity University graduates to leave your school with?

At the end of Inaugural session, the customary duty of presenting a vote of thanks was done by Dr. Shivangi S. Somvanshi, Assistant Professor, AIES.
The first plenary session of the FDP was commenced by MC, Dr. Maya Kumari, Assistant Professor, ASNRSF.

**Dr. Shakeel Ahmad Khan, Principal Scientist Division of Environmental Sciences, ICAR- IARI**

He talked about “Role of Higher Education in SDGs”. He discussed about Introduction, why SDGs, SDGs 4 & 4.3 deals in higher education, some initiatives and 2030 framework main goal of SDG. What is the chronology, and how it started? Target 4.3 is officially monitored by UNESCO Institute of Statistics through the indicator “gross enrolment ratio for tertiary education.

He also discussed about the ESD and higher education, challenges for SD in higher education, how to integrate SD in higher education? What is sustainability literacy (Sulitest), Aim and structure of Guidance framework, Universities and higher education institutions have a key role to play in all of the ESD-GAP priority. The sustainable development goals or global goals are a collection of 17 interlinked global goals designed to be a “blueprint to achieve a better and more sustainable future for all.
Dr. Anshu Singh, Deputy Director General, Ministry of Environment, Forest & Climate Change

She discussed about “Metrics for sustainability their applications”. She talked about What is sustainability, origin of sustainable development goals, Dimensions of SDGs like social, economic and environmental, Implementation of SDGs, Global Indicator Framework (GIF), Sustainable development matrices like purpose and opportunity. She also gave few examples of matrices for environment related SDGs like Goal 12 (sustainable consumption and production), Goal 13 (climate action), goal 15 (life on land).

The lecture was followed up by a documentary “Our planet: Our Business” was showcased in the last. Dr. Maya Kumari, Assistant professor ASNRSD, the MC of the session had highlighted the importance of the documentary. The documentary has received lots of appreciation from the participants. All the documentaries were shortlisted by Dr. Ambrina Sardar Khan, Assistant professor, AIES for the FDP. The purpose and aim of these documentaries are to make the participants to visualize the massive destruction if environment and how we can conserve it with the help of sustainability.

At the end of the session, the customary duty of presenting a vote of thanks was done by Dr. Manoj Chander Garg, Assistant Professor, AIES. The day was very fruitful, and the participants have thoroughly enjoyed the sessions. The sessions with all the speakers were very interactive and knowledge gaining.

The Online Assessment for Plenary Session –I was done at the end. The google form was pasted in the chatbox and the participants were supposed to attempt all the questions. The aim of the assessment was to know that how actively and sincerely the participants have attended the FDP. The total responses received on the first day were 180.
The second session of the FDP has four speakers from the different expertise across the country who have spoken and discuss the various concerns associated with Sustainable development goals and environmental pollution. Total 478 people have registered for the event and 381 attended the event on the II day.

**PLENARY SESSION – II**

The second day of the FDP was commenced by MC, Dr. Shivangi Somvanshi, Assistant Professor, AIES and welcome addressed by Dr. Renu Dhupper, Assistant Professor, AIES. Dr. Renu also briefed about the session of 1st day of FDP to all the participants.

**Day 2: 02/06/2021 (Wednesday)**

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<tr>
<th>Time</th>
<th>Speaker and Details</th>
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| 01:00pm-01:40pm | Dr. (Mrs) Namita Joshi Professor Dept. of Environmental Science, 2nd Campus, Gurukul Kangri University Kanya Gurukul Campus, Haridwar  
**Topic:** Environmental Sustainability, clean water and sanitation.  
**Align with SDG 6 & 15** |
| 01:40pm-01:50pm | Address to queries by Dr. (Mrs) Namita Joshi                                        |
| 01:55pm-02:35pm | Dr Awkash Kumar, CEO and Founder of SSE (Sustainable Solutions for Environment), SAGE (Sustainable Approach for Green Environment) and General Secretary of SOCLEEN (Society for Clean Environment)  
**Topic:** “Air Quality Management for Sustainability”  
**Align with SDG 15** |
| 02:35pm-02:45pm | Address to queries by Dr. Awkash Kumar                                               |
| 02:50pm-03:30pm | Prof. A. L. Aggarwal, Air Pollution and EIA Expert, Emeritus Professor Indian air quality studies interactive repository  
**Topic:** “Environmental Impact Assessments (EIA) in India: A Workable Tool for Achieving SD”  
**Align with SDG 11** |
| 03:30pm-03:40pm | Address to queries by Prof. A. L. Aggarwal                                           |
| 03:45pm-04:25pm | Dr. Saumyaditya Bose PhD CEng (Ind), Proprietor | BCS (Bose Consultancy Services)  
**Topic:** “Industrial Pollution and Sustainable Development in India”.  
**Align with SDG 6, 12 & 13** |
| 04:25pm-04:35pm | Address to queries by Dr. Saumyaditya Bose                                            |
| 04:40pm-05:20pm | Dr. Ambrina Sardar Khan, Assistant Professor, Amity Institute of Environmental Sciences, AUUP  
**Topic:** “History of Environmental concerns & SDGs”  
**Align with all the SDGs** |
| 05:20pm-05:30pm | Address to queries by Dr. Ambrina Sardar Khan                                         |
| 05:30pm-05:50pm | ‘An Unequal Fight’: A Documentary on Industrial Pollution in Patancheru  
https://vidhilegalpolicy.in/videos/an-unequal-fight-a-documentary-on-industrial-pollution-in-patancheru/ |
| 05:50pm-06:00pm | Vote of thanks by Dr. Ashutosh Tripathi                                              |
| 06:00pm – 06:30pm | Online Assessment for PLENARY SESSION – II  
**LINK**  
https://youtu.be/qTtDkRU9z4g |
Dr. (Mrs) Namita Joshi Professor & Head, Dept. of Environmental Science, Gurukul Kangri University Kanya Gurukul Campus, Haridwar.

She talked on ‘Environmental Sustainability, clean water and sanitation. In her talk she gave a focus on Sustainable management of water resources and access to safe water and sanitation are essential for unlocking economic growth and productivity and provide significant leverage for existing investments in health and education. She emphasized on the goal 6 and discuss its importance to ensure availability and sustainable management of water and sanitation for all. She mentioned that one in three people live without sanitation. This is causing unnecessary disease and death. Although huge strides have been made with access to clean drinking water, lack of sanitation is undermining these advances. If we provide affordable equipment and education in hygiene practices, we can stop this senseless suffering and loss of life.

She talked about the Sustainable management of water resources and access to safe water and sanitation are essential for unlocking economic growth and productivity and provide significant leverage for existing investments in health and education. The natural environment e.g., forests, soils and wetlands contribute to management and regulation of water availability and water quality, strengthening the resilience of watersheds and complementing investments in physical infrastructure and institutional and regulatory arrangements for water access, use and disaster preparedness.

She also focused that how water shortages undercut food security and the incomes of rural farmers while improving water management makes national economies, the agriculture and food sectors more resilient to rainfall variability and able to fulfil the needs of growing population. Protecting and restoring water-related ecosystems and their biodiversity can ensure water purification and water quality standards.
Dr Awkash Kumar, CEO and Founder of SSE (Sustainable Solutions for Environment), SAGE (Sustainable Approach for Green Environment) and General Secretary of SOCLEEN (Society for Clean Environment).

He gave lecture on ‘Air Quality Management for Sustainability. He highlighted some important topics like air pollution and its impacts, air quality assessment, air quality monitoring, air quality modelling and control scenario, etc. The overall focus of the lecture was to provide innovative approaches to air pollution control strategies and cost-effective solutions to reduce air emissions in order to support the initiatives of achieving sustainable air quality.

The key aspects covered were of sustainable air pollution management include sustainable energy and transportation, green infrastructure, sustainable and energy-efficient buildings, cost-effective air quality monitoring systems, citizen science, life cycle analysis, and cost–benefit analysis of sustainable approaches to reduce emissions. Highlighting the theme of the FDP, he presented the current state-of-the-art in strategies for cost-effective air pollution measurements, modelling, and controls towards sustainable communities. He also highlighted the efforts to combat air pollution that will contribute to SDG 3 (good health and well-being), SDG target 7.2 on access to clean energy in the home, SDG target 11.6 on air quality in cities, SDG target 11.2 on access to sustainable transport and SDG 13 (climate action), as well as the goals of the Paris Agreement on climate change.
He gave his deliberation on Topic: "Environmental Impact Assessments (EIA) in India: A Workable Tool for Achieving SD." He gave an overview about India’s challenges on environmental compliances consultant prospective. He defined the idea behind Sustainable development (SD) that human societies must live and meet their needs without compromising the ability of future generations to meet their own needs. The “official” definition of sustainable development was developed for the first time in the Brundtland Report in 1987. He said specifically, SD is a way of organizing society so that it can exist in the long term.
This means taking into account both the imperatives present and those of the future, such as the preservation of the environment and natural resources or social and economic equity. He focused that SDG will be accomplished by bringing together their respective governments, businesses, media, institutions of higher education, and local NGOs to improve the lives of the people in their country by the year 2030. He also discussed the concept of linkage between SD & EIA and Urban Development in India. He was with the view that SD is an intersection between environment, society, and economy, which are conceived of as separate although connected entities. Also, separation of environment, society and economy often leads to a narrow technoscientific and compartmentalized approach.

He concluded by saying that EIA (in different existing or modifies forms) can provide the General Framework in India for SD for its all Resources Including Natural (Environmental, Social/Cultural, Economics. EIA being Conducted Should be improved. Regional EIA should more be used for city planning and to start with SEIA, Life Cycle EIA should locally be planned & designed India.
He shared his presentation on the topic of "Industrial Pollution and Sustainable Development in India". In his talk on he gave a focus on the India’s score card on SGDs. He started his presentation by asking a question that why pollution is such a critical challenge? He focused on many different aspects in terms of exposure to toxic air, toxic water, soil and, chemical pollution and said that these are the major environmental causes of global premature death which makes this environmental pollution a critical challenge for the human population.

He discussed a default conceptual site model of potential environmental hazards. He said that the biggest problem is the presence of pollutant in the nature and their interaction with the human world. He discussed how the presence of these contaminants or pollutants lead to the environmental degradation along with the interference of these contaminants with the ecosystem and the human health.

He also talked about the challenges that India is facing with reference to the poor implementation and enforcement of the environmental laws and regulations. He said that there are several laws that talks about the conservation of environment but unfortunately, they are not practiced or implemented properly. He mentioned that how the haste of globalization urbanization and industrialization has led to severe environmental concern in developing countries.
He talked about the economic and social changes that are putting pressure on the environmental resources of the country. He advocates the need for India to achieve rapid ecologically sustainable industrial growth which would require a transformation towards green manufacturing and adoption of environmental sustainability practices by promoting green technologies and identifying three cross cutting strategic parts which are mainstreaming and promoting green businesses protecting natural resources and addressing funding issues.

He talked about the close link between the pollution disaster and sustainable development. He says that the main issue is that the world is becoming more vulnerable to the impacts of natural hazards like earthquake, flood, drought accelerated due to the population growth, environmental degradation inequality and climate change. He says that the anthropogenic activities lead to the environmental crisis that results into the disasters that cost life and huge amount of money that are needed to bring the life back to the normal. The message he tried to give that if we want to have a sustainable industrialization then we have to go for the replacement of the raw material from the natural resources or wisely utilization of the available resources on the planet along with the reduction in the pollution and other environmental degrading activities.
To have a little break and to make the FDP more interactive and interesting a small activity was conducted by Dr. Maya Kumari, Assistant professor, ASNRS. Few questions were asked on an online platform which was thoroughly enjoyed by the participants. The activity was followed by the last deliberation for the day by Dr. Ambrina Sardar Khan.

**Dr. Ambrina Sardar Khan, Assistant Professor, Amity Institute of Environmental Sciences, Amity University, Noida.**

She presented on the topic of History of Environmental Concerns and Sustainable Development Goals. She started with the United Nations conferences on the environment, 4-16 June 1972, Stockholm and discussed the topic like end poverty in all its form, achieve gender equality and empower all the women and girls etc.

Dr. Ambrina discussed about the various kinds of problems that has threatened the stability or the survival of the society and the human population on the planet she has discussed about that how the human beings have created the imbalances because of the excessive exploitation of the natural environment and because of which today we were facing so many catastrophes and environmental crisis. She had talked about three major reasons that is impacting the environment to a greater extent and its relationship with the human beings, first the problems that arise from the natural catastrophes, second the problems arise due to the excessive human activities and third with the increasing dependency of humans on the natural resources for food energy shelter industrialization urbanization etc.
Dr. Ambrina has discussed about the history of environmental concerns that began in late 70s when the world leaders have started commanding the global attention for the environmental problems. She has discussed about the mega conferences that were held in late 70s to discuss the specific regional problems across the world related to the human health and food crisis and to try to have an overview off their relationship between human society and the natural world.

She had thoroughly explained all the 17 sustainable development goals to the participants from the various academic and professional background.

The lecture was followed by a discussion and a documentary was showcased related to the sessions that have happened that day so the participants shall have a better understanding of the environmental issues.

A documentary on ‘An Unequal Fight: A Documentary on Industrial Pollution in Patancheru’ was also shown and shared and operated by Dr. Maya Kumari, Assistant professor, ASNRS. ‘An Unequal Fight’ tracks one of India’s oldest environmental cases involving pollution by bulk drug manufacturing industries in Patancheru and Bollaram area in Telangana.
The Supreme Court of India, and later the National Green Tribunal, have passed countless directions to restore the environment in this region and to make polluters pay for the damage wreaked on people’s lives. Despite these interventions, pollution levels remain unabated, and people of the region continue to suffer with no end in sight to their misery.

The session ended with thanksgiving by Dr. Ashutosh Tripathi to all the esteemed speakers for sharing the valuable views and enlightening all the participants.

Online Assessment for Plenary Session –II was done at the end. The google form was pasted in the chatbox and the participants were supposed to attempt all the questions. The aim of the assessment was to know that how actively and sincerely the participants have attended the FDP. The total responses received on the second day were 190.
PLENARY SESSION – III- The third session of the FDP has four speakers from the different expertise across the country who have spoken and discuss the various concerns associated with Sustainable development goals and decent work, economy, and climate change. Total 503 people have registered for the event and 343 attended the event on the III day.

Day 3: 03/06/2021 (Thursday)
PLENARY SESSION – III
12:00pm-05:50pm

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<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
<th>Align with SDGs</th>
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<tr>
<td>12:00pm-12:40pm</td>
<td>Ms. Chaitali Das, Social Entrepreneur - Jute revivalist, Global Chairperson &amp; Managing Trustee, Rakshak Foundation, President, India - Western Canada Bilateral Business Council, Member Signatory, United Nation Global Compact, Gender Equality - Core Committee</td>
<td>Topic: Economy-Decent work &amp; Economic Growth, Industry Innovation, and infrastructure.</td>
<td>All SDGs</td>
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<td>12:40pm-12:55pm</td>
<td>Address to queries by Ms. Chaitali Das</td>
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<td>01:00pm-01:40pm</td>
<td>Dr. S.P. Singh, Director Amity School of Natural Resources &amp; Sustainable Development</td>
<td>Topic: “Overview of SDGs”</td>
<td>All SDGs</td>
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<td>01:40pm-01:55pm</td>
<td>Address to queries by Dr. A.K. Bhattacharya</td>
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<td>02:00pm-02:40pm</td>
<td>Dr Shalini Sharma, Joint Coordinator ASD, Amity University</td>
<td>Topic: “Sustainable Practices: Adaptation of Luxury Hotels to Sustainability as CSR”</td>
<td>SDG 4</td>
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<td>02:40pm-02:55pm</td>
<td>Address to queries by Dr Shalini Sharma</td>
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<td>03:00pm-03:40pm</td>
<td>Ms Taruna Idnani, Manager – Corporate Actions, Council of Business Sustainability, TERI</td>
<td>Topic: “Climate change and consciousness: Linkages and Opportunities”</td>
<td>SDG 7&amp;13</td>
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<td>03:40pm-03:55pm</td>
<td>Address to queries Ms Taruna Idnani</td>
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<td>04:00pm-04:45pm</td>
<td>Sustainability</td>
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<td>04:50pm-05:10pm</td>
<td>Vote of thanks by Dr. Kartikey Shukla</td>
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<td>05:15pm- 05:50pm</td>
<td>Online Assessment for PLENARY SESSION – III</td>
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Ms. Chaitali Das, Social Entrepreneur - Jute revivalist, Global Chairperson & Managing Trustee, Rakshak Foundation, President, India - Western Canada Bilateral Business Council, Member Signatory, United Nation Global Compact, Gender Equality - Core Committee:

She gave a presentation on Economy-Decent work & Economic Growth, Industry Innovation, and infrastructure. She also shared the Jute Story of her Rakshak Foundation. Jute story beyond bars is a unique project running since 2016 till date in Dumdum correctional home and later in Presidency correctional home. She also showcased some of the diversified products of jute under her jute story. She is involved in social upliftment of the underprivileged. Her skill and livelihood development project ‘Jute Story Beyond Bars’ in the Dumdum Central Correctional Home and Presidency Correctional Home has been widely appreciated and applauded as a very important step in reformation of prison inmates and helping to de-stigmatize their existence. She has helped to rehabilitate released female prison inmates and their re-inclusion into the mainstream society.

She shared that the journey was not easy, to work with prison inmates which was vehemently opposed by her close ones and peers. Nevertheless, she went ahead with her mission with a firm resolve. She faced social isolation in her business circles and was looked down upon for working with people carrying the tag of Convict. She faced discouragement when she decided to work on reviving Jute. She was told that it was not worth, as it constituted a dying industry and a very base material to work. However, despite all the dissuasion in 2017, she began work towards bringing an Eco-friendly green revolution behind the tall walls of confinement, resulting in the launch of her project ‘Jute Story Beyond Bars’ (JSBB).

Diversified Jute Products:
Dr. S.P. Singh, Director, Amity School of Natural Resources and Sustainable Development

The second panelist of the day was Dr. S.P. Singh, Director ASNRSD, Amity University. He gave an overview of Sustainable Development Goals (SDGs) and its implementation in India. He has covered all the sustainable development goals in detail. His lecture was focused how we can implement the sustainable development goals in our lives, and he has also talked about the green practices in Amity University. He has also thrown light on the national strategies for achieving sustainable development goals, namely National Mission for Empowerment of Women including Indira Gandhi Matri Shakti Yojana, National Programme of Nutritional Support to Primary Education, National Health mission, National Education Mission etc. He has discussed in detailed about the various sustainable development goals index along with the cross cutting and multi-dimensional aspects of sustainable development goals. He talked about how SDG framework specifically targets ending poverty in all its forms, thereby raising the stakes on accelerated multidimensional poverty reduction. The Vertical steers the development of India’s national Multidimensional Poverty Index (MPI) and the reform action plan to reduce multidimensional poverty.

He also shared National Action on the SDGs in India by NITI Aayog, the Government of India’s premier think tank, has been entrusted with the task of coordinating the SDGs. NITI Aayog has undertaken a mapping of schemes as they relate to the SDGs and their targets and has identified lead and supporting ministries for each target. They have adopted a government-wide approach to sustainable development, emphasizing the interconnected nature of the SDGs across economic, social and environmental pillars. States have been advised to undertake a similar mapping of their schemes, including centrally sponsored schemes.
She gave an insightful deliberation on Sustainable Practices: Adaptation of Luxury Hotels to Sustainability as CSR. She highlighted some points on how to make a design sustainable, a design which has least environmental impacts. She said sustainability has made a comeback with a reformed definition, referring to the ability to meet our own needs without compromising that of our future generations, and it has found a new home in hospitality. She discussed the sustainable design of the infrastructure. She focused how we can reduce the environmental impact by switching to the green buildings. She emphasized on the waste management for having a sustainable lifestyle. She highlighted the indicators which has to be taken care of during sustainable management of waste like plastic, glass etc. She emphasized on promoting biodiversity in green buildings and societies to ensure the health surroundings of the building.
Ms Taruna Idnani, Manager – Corporate Actions, Council of Business Sustainability, TERI

She gave a presentation on Climate Change and Consciousness: Linkages and Opportunities, aligned with SDG 7 (Affordable and clean energy) & 13 (Climate Action) in Indian context. She said that over the last decade, India has provided electricity to nearly 50 million new users every year. The tremendous growth in renewable has tempered growth in coal capacity, but not prevented it. She was emphasizing how we can ensure access to affordable, reliable, sustainable, and modern energy for all. She further portrayed some challenges which India is facing in achieving these goals.

Access to electricity in poorer countries has begun to accelerate, energy efficiency continues to improve, and renewable energy is making impressive gains in the electricity sector. She talked about the COVID19 crisis and challenges also. Focusing on the aim of SDG 13, she said UN aims to Climate change is a real and undeniable threat to our entire civilization.
The effects are already visible and will be catastrophic unless we act now. Through education, innovation and adherence to our climate commitments, we can make the necessary changes to protect the planet. These changes also provide huge opportunities to modernize our infrastructure which will create new jobs and promote greater prosperity across the globe. She also highlighted various schemes of the government working in this direction.

Ms. Idnani has shared two wonderful videos about the renewable energy and also how we can take the light to every part of the country. The videos were focused on how the solar energy lamps can be made available to the villagers and how the burden from the fossil fuels can be reduced. She said that the world is making progress towards Goal 7, with encouraging signs that energy is becoming more sustainable and widely available.

To make the FDP more interactive and interesting a small activity was conducted by Dr. Maya Kumari, Assistant professor, ASNRSD. Few questions were asked on an online platform which was thoroughly enjoyed by the participants.

A documentary on ‘Sustainability’ was also shown and shared and operated by Dr. Maya Kumari, Assistant professor, ASNRSD. This documentary explores the rise of the concept of sustainability as it has gone from the fringes to the mainstream within just a few short decades, driven by an environmental crisis on a global scale. In this short documentary film, participants explore this new environmental context of the Anthropocene and the key structural transformations in our economy required to achieve sustainability in the age of globalization.
The documentary was followed by the customary duty of presenting a vote of thanks proposed by Dr. Ambrina Sardar Khan, Assistant Professor, AIES. The day was very fruitful, and the participants have thoroughly enjoyed the sessions. The sessions with all the speakers were very interactive and knowledge gaining.

The Online Assessment for Plenary Session –III was done at the end. The google form was pasted in the chatbox and the participants were supposed to attempt all the questions. The aim of the assessment was to know that how actively and sincerely the participants have attended the FDP. The total responses received on the third day were 227.
PLENARY SESSION – IV- The fourth session of the FDP has four speakers from the different expertise across the country who have spoken and discuss the various concerns associated with Sustainable development goals and the usage and application of green technology. Total 518 people have registered for the event and 319 attended the event on the IV day.

Day 4: 04/06/2021 (Friday)

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
<th>Align with SDGs</th>
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<tbody>
<tr>
<td>12:00pm-12:40pm</td>
<td>Dr. A.K. Bhattacharya, IFS (Retired), Chairman, Skills Art &amp; Beyond Chairman, Integrated Development Organization MD &amp; CEO, Centre for Resources Development Studies, MD, Bamboo Entrepreneurship Development Foundation</td>
<td>“Green Technology &amp; Sustainable Development”</td>
<td>SDG 6</td>
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<td>12:40pm-12:50pm</td>
<td>Address to queries by Dr. A.K. Bhattacharya</td>
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<tr>
<td>12:55pm-01:45pm</td>
<td>Panel discussion on application green technology</td>
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<tr>
<td>01:50pm-02:30pm</td>
<td>Prof. Rajinder S. Chauhan, Dean &amp; Head, Biotechnology, Bennett University, Greater Noida</td>
<td>“Indian Himalayas as Repository for Green Products”</td>
<td>SDGs 8, 12 &amp; 15</td>
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<td>02:35pm-02:45pm</td>
<td>Address to queries by Prof. Rajinder S. Chauhan</td>
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<td>02:50pm-03:30pm</td>
<td>Dr. K Rathna, Chief Operating Officer, Centre for Indian Bamboo Resource &amp; Technology (CIBART)</td>
<td>“Economical potential of bamboo for Sustainable livelihood”</td>
<td>SDGs 1, 2 &amp;12</td>
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<td>03:30pm -03:40pm</td>
<td>Address to queries by Dr. Rathna</td>
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<td>03:45pm-04:25pm</td>
<td>Mr. Jaydeep Naha, General Manager (EPC), Siemens (Global) Energy</td>
<td>“Global trends for Sustainability in the Energy sector”</td>
<td>all SDGs</td>
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<td>04:25pm- 04:35pm</td>
<td>Address to queries by Mr. Jaydeep Naha</td>
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<td>05:05pm-05:15pm</td>
<td>Vote of thanks by Dr. Maya Kumari</td>
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<td>05:15pm- 05:50pm</td>
<td>Online Assessment for PLENARY SESSION – IV</td>
<td><a href="https://youtu.be/VgL6He3hR7Q">https://youtu.be/VgL6He3hR7Q</a></td>
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The fourth day of FDP was commenced by MC, Dr. Richa Dave Nagar, Assistant Professor, AIES. Dr. Renu Dhuper, Assistant Professor, AIES, welcome the speakers and briefed about the session of 4th day of FDP. The session was attended by four speakers and 319 participants.
Dr. A.K. Bhattacharya, IFS (Retired), Chairman, Skills Art & Beyond Chairman Integrated Development Organization MD & CEO, Centre for Resources Development Studies MD (Hon):

He gave a presentation on Green issues and Sustainable development. He started with the Green Pledge. He spoke about Sustainable development vs sustainability. Sustainability is the way of thinking. There are over 200 different definitions to answer what is sustainable development. However, the most common definition was defined by the Brundtland Commission in 1987, who documented the sustainable development definition as: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Green Economy is one that results in increased human wellbeing and social equity, while significantly reducing environmental risks and ecological scarcities.

The genesis of concern “The holocoenotic nature of environment” Change in one ecological or environmental factor can concurrently affect the dynamic state of an entire ecosystem.

He discussed about Climate change. Climate change is a long-term shift or alteration in the climate of a specific location, a region or the entire planet. Climate change is perhaps the most pressing and urgent environmental issues on the world agenda.

Global Warming a major threat. Every scientific institution and national government in the world now endorse the conclusions of the UN’s Intergovernmental Panel on Climate Change (IPCC) that global warming is a major threat to the planet’s future. A Process of Mass Destruction: Heating of the earth’s atmosphere due to increasing concentration of carbon dioxide and other greenhouse gases.
Global warming refers specifically to any change in the global average surface temperature of the earth. In other words, global warming is one type of planetary scale change. Warming Impacts: Disappearing glaciers, Migratory birds arrive earlier at summer breeding grounds, Increased survival of pest populations, Coral reef “bleaching” of reef building corals.

He discussed causes of Climate Change such as natural events and processes, Human influences in the form of Emission of greenhouse gases, local air pollution, alteration in land use, deforestation. He also spoke about Gandhi’s perception of Sustainable development, Community perception of Sustainable development, green economy, Circular economy, blue economy.

Prof. Rajinder S. Chauhan, Dean & Head, Biotechnology, Bennett University, Greater Noida

He talked about “Indian Himalayas as Repository for Green Products”. He gave tribute to Sh. Sunderlal Bahuguna by quoting “ecology is permanent economy”. He discussed about the Indian Himalayan region, threats to Himalayan Ecosystem, Nature’s repository, Threats to repository, green products vis-a-vis SDGs, S&T/Policy interventions, Challenges and opportunities. Endangered Himalayan species source of Anti-cancer drug.

Biological richness of Himalayan Region. Indian Himalayan region (IHR) support nearly 50% of the total flowering plants in India of which 30% Flora is endemic to the region. There are over 816 tree species, 675 edibles and nearly 1743 species of medicinal value found in the IHR. The region is known as a “water tower of the earth”.
Approximately 10 to 20% the area is covered by glaciers, while 30-40% remains under seasonal snow cover. The Himalaya with its vast green cover act as ‘sink’ for Carbon dioxide.

Threat to the Himalayan Ecosystem. Unsustainable exploitation and deforestation are forests for urbanization, Timber, medicinal plants, poaching etc. Unsustainable development through ill-planned hydroelectric projects, construction of roads, deforestation for industry purposes and increasing area of towns. Unsustainable tourism: pressure on ecosystem disrupting natural ability to renew. He talked about the deforestation in Himalaya: forest plants ecosystem: Grasses, herbs, shrubs trees.

Sustainable development vis-à-vis green economy. Sustainable development: development that meets the needs of the present without compromising the ability of future generations to meet their own needs. With its economic, social and environmental pillar, SD is arguably a wider concept than the green economy. UNEP defines green economy as “one that result in improved human well-being and social equality, while significantly reducing environmental risk and ecological scarcities. Green bio-based sustainable are products using natural ingredients produced from renewable raw materials contrary to petrochemical derived a nonrenewable and economically volatile resource.

Bio waste products can contribute to Green and sustainable bioeconomy. As perfume, flavours, fragrances, natural dyes and colour. Bioenergy and Biofuel. He emphasized that are we ready to manufacture and adopt bio-based products. What fossils-based products can be replaced with bio-based products in light of raw materials availability in India? Are production and processing of raw materials aligned to industry QC requirements? Can bio-based industries generate employment and economic growth? Will green bio-based product be affordable and cost effective?

He spoke about challenges in sustainable utilization of Medicinal herbs. Endangered status of high-value Himalayan medicinal Herbs. Lack of propagation Technologies for commercial cultivation. Lack of DNA diagnostic to detect specific strains for amounts of adulterants. No genetic improvement due to lack of genetic/molecular basis of biomass and contents of chemical constituents. Lack of proper storage transportation, postharvest processing and marketing.
He was with a view that sustainable use of nature’s Himalayan repository will bring some change to Himalayan region. Are Government policies on declaring these species as endangered prohibited there uprooting? Can we educate rural community to conserve, cultivate, process, and trade these medicinal plant species? At present local communities are exploiting Himalayan forests for food, feed, fodder, trading herbal materials trekking and tourism etc.

He said that Bio-based products can contribute to green and sustainable Bioeconomy, are we ready to manufacture and adopt bio-products, challenges in sustainable utilization of medicinal herbs.

Dr. K Rathna, Chief Operating Officer, Centre for Indian Bamboo Resource & Technology (CIBART)

Her topic of discussion was “Economical potential of bamboo for Sustainable livelihood”. She discussed about Bamboo for Sustainable Development. Bamboo has over 1500 documented uses. Occupies 12.8% of forest areas in India. Releases 35% more oxygen than an equivalent stand of trees. Absorbs four times as much carbon. Farming bamboo has big economic benefits. Bamboo is a perennial, versatile and income producing crop. It grows quickly with a maturity of three to five years. She focused why bamboo enterprises for Economic opportunities, because Bamboo is a renewable resource, available in large quantities. Bamboo offers tremendous employment opportunities - as raw material and as finished product. Household/community units as well as medium scale units can be set up. Commercial ventures that provide employment can be set up.

She also explained about reasons for India’s low bamboo product market share. She said that the reasons are large unemployed, unskilled rural population (especially youth) where the resource is plenty. Lack of access to training and technology, Skilled traditional artisans; still use primitive tools and have no technology, available technology in Institutions but NOT taken to the needy communities who live in mainly forest areas. Very little focus on quality products. Limited way of mass production of low value items.

She also discussed about the Centre for Indian Bamboo Resource and Technology (CIBART). CIBART’s thematic areas, three training components, Capacity building & training, Integrating technology, Pilot research of CIBART. She thoroughly explained about the uses of bamboo and bamboo products, you are nurturing a sustainable tomorrow.
Her topic of discussion was “Economical potential of bamboo for Sustainable livelihood”. She discussed about Bamboo for Sustainable Development, Farming bamboo has big economic benefits, Economic opportunities - Bamboo Enterprises, Current Usage of Bamboo, Bamboo Market, Reasons for India’s low bamboo product market share, Funding/Growth Opportunities and about CIBART. Her presentation was very elaborative and discuss the various avenues of the trade and occupation in the field of bamboo resource and technology.

Mr. Jaydeep Naha, General Manager (EPC), Siemens (Global) Energy

He discussed about “Global trends for Sustainability in the Energy sector”. The Objective of the today talk is about gain an understanding of how to implement the UN’s SDGs, Conceptualize the energy of the future. He said that focused and strategic societal engagement activities should support societies worldwide. Our activities should be linked to certain focused United Nations’ SDGs to ensure highest impact. Clear targets support the ambition of large corporates to become a sustainability leader in the industry. Climate change is more expensive for our society than climate change. Digitalization results in fast changing value chains with increasing complexity: new technology, business model.

He also gave some examples of sustainable business innovation. He shared the work his company is doing across the globe. The concept would focus on few topics and include monetary donations, in-kind donations and employee volunteering. Our activities should be directly linked with the SDG. In organization we should focus on the Clear targets support the ambition of large corporates to become a sustainability leader in the industry. Climate change is more expensive for our society than climate change.
We are already working out a solution in the Energy sector. Efficiency increase, Fuel shift/hybridization and deep decarbonization. Digitalization results in fast changing value chains with increasing complexity: new technology, business model. He discussed about “Global trends for Sustainability in the Energy sector”. The Objective of the today talk is about gain an understanding of how to implement the UN’s SDGs, Conceptualize the energy of the future, learn how you can work in ecosystem.

He also gave some examples of sustainable business innovation if we chose about the economic sector, we are having very interesting company ‘g’ in Europe which is private sharing optimizing utilization of private cars and in reselling business, ebay company online auctioneer but also resell-platform. He said that focused and strategic societal engagement activities should support societies worldwide. Our activities should be linked to certain focused United Nations’ SDGs to ensure highest impact.

To make the FDP more interactive and interesting a small activity was conducted by Dr. Maya Kumari, Assistant professor, ASNRSID. Few questions were asked on an online platform which was thoroughly enjoyed by the participants.
A documentary on ‘My Way or The Highway’ – A Documentary on Protection of Wildlife Corridor in Kaziranga” was showcased in the last. Dr. Maya kumari, Assistant professor ASNRS, the MC of the session had highlighted the importance of the documentary. The documentary has received lots of appreciation from the participants.

At the end of the session, the customary duty of presenting a vote of thanks was done by Ms. Richa Sharma, Assistant Professor, ASNRS.

The Online Assessment for Plenary Session –I was done at the end. The google form was pasted in the chat box and the participants were supposed to attempt all the questions. The aim of the assessment was to know that how actively and sincerely the participants have attended the FDP. Total 218 responses was received from the participants.
PLENARY SESSION – V- The third session of the FDP has four speakers from the different expertise across the country who have spoken and discuss the various concerns associated with Sustainable development goals and decent work, economy, and climate change. Total 530 people have registered for the event t and 321 attended the event on the V Day.

Day 5: 05/06/2021 (Saturday)
PLENARY SESSION – V
12:00pm-04:15pm

12:00pm-12:40pm
Dr. Chhama Awasthi, Scientist C, Department: KIRAN, Department of Science & Technology, Ministry of Science & technology
Topic: Government of India’s efforts on reducing the gender gap in science
Align with SDGs 4, 5 & 10

12:40pm-12:50pm
Address to queries Dr. Chhama Awasthi

12:55pm-01:35pm
Mr. Shailendra Singh, Founder and CEO, SustainMantra
Topic: The dark side of sustainability and Circular economy.
Align with all SDGs

01:35pm-01:45pm
Address to queries by Mr. Shailendra Singh

01:50pm-02:30pm
Dr. Chirashree Ghosh, Professor, University of Delhi
Topic: “Nature based solutions for achieving sustainable development”
Align with all SDGs

02:30pm-02:40pm
Address to queries by Dr. Chirashree Ghosh

02:45pm-03:25pm
Mr. Leonardo Piccinetti, EU Climate Pact Ambassador, Warrington, England, United Kingdom
Align with all SDGs

03:25-03:35pm
Address to queries by Leonardo Piccinetti

03:35pm-03:45pm
World Environment Day-Poster Presentations & winners

03:45pm-04:15pm
Online Assessment for PLENARY SESSION – V and Feedback of the FDP

LINK
https://youtube.com/playlist?

The fifth day of FDP was commenced by MC, Dr. Lolita Pradhan, Assistant Professor, ASNRSID. Dr. Renu Dhuper, Assistant Professor, AIES, welcome the speakers and briefed about the session of 5th day of FDP. The session was attended by four speakers and 321 participants.
Her talk was aligned with sustainable development goal number 5 and 10 which are gender equality and reduced inequalities. In her talk she highlighted how women account for a minority of world’s researchers. She also pointed out that diversity is not just a cosmetic addition to a workforce in fact increased diversity brings about potentially significant financial gains and improved business outcomes.

Later she talked about women in STEMM in India. She also presented figures on fellowship of Indian national Science Academy and recognitions to women scientists by INSA. She also discussed the need of immediate intervention for entry and retention of women in science and technology and initiatives taken by Government of India to reduce the gender gap for women to progress in their academic careers. She stressed on the fact that the progress of scientific development innovation and discovery can only benefit from diversity gender being one of the components also given the fact that women are 50% of humanity their intellectual potential is something that we cannot afford to ignore.

Later she discussed some of the government’s efforts to reduce gender gap like women scientist A, B, C scheme, Marie Curie, women Excellence Award fellowship to women candidates, Kiran scheme etc. Considering the need of gender advancement in STEMM area at institutional level, the GATI program is now launched by the Department of Science and Technology (DST).
The GATI was one of the three initiatives of DST announced on 28 February 2020, the National Science Day, by the Hon’ble President of India at a celebratory programme dedicated to Women in Science held at Vigyan Bhavan, New Delhi. DST is inviting Expression of Interest to participate in the pilot of GATI. Universities, and other S&T Institutions are invited to participate in pilot of Gender Advancement for Transforming Institutions (GATI) launched by Government of India. GATI is a novel pilot programme envisioned in mission mode to promote gender equity in Science, Technology, Engineering, Mathematics and Medicine (STEMM) domains.

She has talked about how the women in India face several challenges in moving up the academic and administrative ladder due to systemic barriers and structural factors. Gender equality in scientific laboratories and institutions of higher education is not only about numbers but also about various micro and macro level factors operating at institutional level. There exist various policies and enabling environment in different institutions in India but a common approach or guiding principles to bridge the gender gap is still lacking. In science and technology sector it is difficult to assess and evaluate the merit of existing process/procedures from gender lens. This clearly demonstrates a need for multi stakeholder interventions. While gender equality in science is an important consideration, it is also in the larger interest of scientific progress and society.
She has thoroughly discussed that woman are an important section of the workforce, more particularly in the science & technology (S&T) domain. However, a large number of well-qualified women get left out of the S&T activities due to various circumstances which are usually typical to the gender. The challenges faced by them are several but most often the "break in career" arises out of motherhood and family responsibilities. She talked about that how to address such issues, Department of Science and Technology (DST) launched "Women Scientists Scheme (WOS)" during 2002-03.

This initiative primarily aimed at providing opportunities to women scientists and technologists between the age group of 27-57 years who had a break in their career but desired to return to mainstream. She was very sure that through this endeavour of the Department, concerted efforts have been made to give women a strong foothold into the scientific profession, help them re-enter into the mainstream and provide a launch pad for further forays into the field of science and technology.
Mr Shailendra Singh, Founder and CEO SustainMantra

Mr Shailendra presented his talk on “The ‘dark side’ of sustainable development/ circular economy”. His presentation focused on the climate change imperative, biophysical boundaries, and social indicator factors, improving social indicators, comprehensive self-sustaining business models, informal sector integration add more. He discussed that the corporate perspective is all about building resilience, how to make business model resilient in the volatile environment.

He expressed his concerns on the fact that even though India is doing well in terms of biophysical boundaries, but the social boundaries are very poor. He also discussed that how government agencies and departments have collaborated with international agencies to build an SDG map for India and the initiatives undertaken to improve the livelihood of the poorest of poor, spanning across the field of education health sanitation justice and several other fronts.

He was with the view that the intensified rhythm of mass production “naturally” requires more natural resources than what the earth carrying capacity – the so-called “planetary boundaries” – can provide. Such unsustainable consumption will increase if we keep with our linear ‘take – make – dispose’ economic models. He also talked about overpopulation and growing demand for goods result in mind-boggling volumes of waste as well as air, soil and water pollution with high negative impacts on human and ecosystem health.
Although the detrimental effects of this linear consumption cycle are well-known, sustainable production, supply and efficient use of resources also represent global challenges to be tackled. He discussed thoroughly about India’s imperative and role in circular economy.

He also discussed in detail about the climate related disasters that hit India and other problems like plastic waste crisis. In continuation he described in detail about an effective plastic waste management system in India from collection, segregation, finance, infrastructure development, regulation to consumer awareness. Later we talked about circular economy business models with social impacts.

He also discussed about conceptual representation to make value added products from post-consumer footwear waste. He said that the circular economy generates value through the entire lifecycle by extending the lifetime of products, allowing them to cycle longer in the economy and recuperating their material basics. In our linear economy, value is created by producing and selling as many products as possible. Instead, for the circular economy concept, most of a good’s value lays in its functionality, which therefore is tried to be maintained even after the use-phase of its lifecycle.

The adoption of a circular approach therefore requires innovative business models which create, capture and deliver value based on resource efficiency and extending products’ useful life and closing materials flow cycles. These circular strategies require the consideration of circular principles from the very early stages of product design processes. Part of the literature identifies eco-design as an approach to improve the environmental performances of products and decrease resource depletion.
He gave the excellent idea or hypothesis in his words to how to make the maximum use of skill but unnoticed and unauthorized people to bring into the mainstream employment and have a sustainable economy in our country. His idea was much appreciated by the panelist and the other participants.

Mr. Shailendra has struck a chord of discussion on circular economy and it was a great discussion among the panelist and participants.
Prof. Chirashree Ghosh, Department of Environmental studies, University of Delhi

presented her talk on “nature-based solutions for achieving sustainable development”.

The talk was started at the wonderful note of a student teacher relationship, and she has talked about how a good teacher who is responsible and aware of his or her duties can inculcate good morals and insight into their student’s life. She has talked about how she loves being a teacher and how sales sincerely she is contributing to the research studies and carrying out the social duties related to the environmental problems and its solutions.

She explained that nature-based solution is an initiative by IUCN and defined as actions to protect, sustainably manage, and restore nature or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human wellbeing and biodiversity benefits.

She discussed how World Environment Day has developed a platform to raise awareness on the problems facing our environment such as air pollution, plastic pollution, illegal wildlife trade, sustainable consumption, sea level rise and food security, among other. Furthermore, World Environment Day helps drive change in consumption patterns and in national and international environmental policy.
Later she discussed about urbanization in India and highlighted that in India and most of the developing countries Urban Development is mostly uncontrolled and unplanned. She also expressed her concerns that in 2020 environmental performance index ranking of 180 countries on 24 performance indicators across 10 issues categories covering environmental health and ecosystem vitality India came at 168th rank.

She discussed about positive impacts on environment by the reduction of air pollution and greenhouse gas emission. She also shared that how the lockdown in India led to the reappearing of animals at the same time the most suffered ones were the workers especially daily wage earners, indigenous people, informal sector etc.

She also highlighted some points of difference between urban and rural health and key elements of health for urban poor like marriage & infertility, maternal health, child survival, family planning, environmental conditions, infectious diseases, and access to healthcare. Later she highlighted the fundamentals of smart city like smart environment, smart health, and smart governance.
She discussed the benefits of the lockdown and how the nature bounces back during lock down. She talked of several ecofriendly solution in her deliberations.

She has emphasized that how been close to nature has helped human beings to grow. She quoted several examples where the ideas and innovations are inspired by nature.

She mentioned about biomimicry and nature’s inspired discoveries and a good relationship we can share to have a sustainable world. She said the central idea is that nature has already fixed many problems society is facing. Animals, plants, and microorganisms are experienced engineers. They know what works, what is appropriate, and most importantly, what lasts on Earth.

She said that with more than 50% of the world’s population concentrating along coastlines, accelerated coastal development inflicting severe stress on natural ecosystems is inevitable, and said that it’s the right time to start working on it.

The lecture was followed by a thorough interaction among the panelists. Dr. Chirashree and Mr. Leonardo has shared lots of good ideas and sustainable research with the participants and the organizer.
He also talked in detail about best practices of your response to Covid19 in different European countries. He discussed on the realization of a circular economy initiated through a number of measures and corporations to transform the industrial sector and all value chains to be ready in 2050 and the resilience on low emission technologies and sustainable products and services.

He talked about the various impact of COVID 19 in details. He said that the impact of COVID 19 work on the PEST model that is political economic social and technology. He talked about the initiatives taken by the European Union for meeting the challenge of COVID-19. He talked about that how the European countries have adapted the challenges caused by the COVID-19 and the amendments made in the education and training systems, supporting continuity in education by listing a range of online platform and projects.
He has discussed about the health systems and was concerned about the insufficient health aids to fight with the pandemic. He also discussed about some other social problems like global unemployment, loss of jobs in industries including culture and tourism. He also talked about the distance education may negatively affect the growth learning and adaptation in the students.

Adding further he has explained about the consequences that are felt by various regions and population groups and the economic crisis faced by them during this pandemic he has also talked about that how the technology can help us to go with the pandemic and how much money and funds were invested in the study of R&D in vaccines, treatment, diagnostics for COVID-19. He discussed about the best practices of four European Union countries for a safe and secure environment.

At last, he suggested some recommendations like reshaping the corporation program, preparedness that must be considered in the event of economic crisis, science diplomacy, mechanism of smart specialization, research, and innovation policies etc. He has extensive experience in trans-national working and promoting good working relationships at all levels in the private and public sectors.
Leonardo writes proposals for EU competitive tenders. His team undertakes training and coaching in more than 100 organizations (Universities, Science Parks and Chamber of Commerce). Mr. Leonardo supports new policies and changes of regulation on the use of wastewater when institutional structures are changing (decentralization, changes of powers, etc.). He proposes policies to overcome barriers to the diffusion of innovative approaches to urban water management: enhance governance structures that can manage water at several scales, engage stakeholders and properly regulate wastewater services.

Mr. Leonardo is currently working on a circular economy approach in water regulation and discussed it future prospects in details. He discussed about his proposed legislation for reused water aiming at fostering the alignment of various regulatory domains involved by water conservation and reuse. He shared that he is working closely with the government as the member of the EIP Water Action Group City Blue Print and COWAMA. He is also a Steering Committee Member of NETWERC H2O (Network for Water in European Regions and Cities).

The lecture was followed up by the poster presentation and the announcement of the names of the winners of the poster competition. The poster competition was organised on the occasion of world environment a 2021, on the theme of ecosystem restoration. The poster competition was organised by the Natural resource and Environmental sciences domain and coordinated by Dr. Ambrina and Dr. Maya.
Around 40 entries were received for the competition under digital and non-digital posters. Since the purpose of the competition is to create awareness among the younger generation, the competition was opened to all age groups, schools, schools, colleges and universities etc.
A compilation of the posters were presented during the faculty development program and had received lots of appreciation and acknowledgement from the panelists and the participation participants.

The Online Assessment for Plenary Session –I was done at the end. The google form was pasted in the chat box and the participants were supposed to attempt all the questions. The aim of the assessment was to know that how actively and sincerely the participants have attended the FDP. Total 218 responses was received from the participants.
VALEDICTORY- The valedictory has three guests of honor from across the globe who were experts from different areas and spoke on the role of Sustainable development goals at workplace, ecosystem restoration and in higher education system. Total 530 people have registered for the event and 321 attended the event on the V Day.

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Details</th>
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<tbody>
<tr>
<td>04:25 pm</td>
<td>Welcome Address by Dr. Ambrina Sardar Khan, Assistant Professor-II, Amity Institute of Environmental Sciences, Amity University Uttar Pradesh, India</td>
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<tr>
<td>04:30 pm</td>
<td>Report Presentation by Dr. Renu Dhupper, Assistant Professor-III, Joint Coordinator, Amity Institute of Environmental Sciences, Amity University Uttar Pradesh, India</td>
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<tr>
<td>04:55 pm</td>
<td>Few thoughts by Prof. (Dr.) Balvinder Shukla, Vice Chancellor, Amity University Uttar Pradesh (AUUP)</td>
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<tr>
<td>05:10 pm</td>
<td>Address by Guest of Honor Ms. Pramila Thapa, Advisor to Yeti Health, Sciences Academy, Nepal, Former Registrar &amp; Member Secretary of Senate in Purbaanchal University, Bāgmati, Nepal Topic: Emotional Intelligence and Sustainable Development goals</td>
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<tr>
<td>05:35 pm</td>
<td>Address by Guest of Honor Dr. S. S Samant, Director, Himalayan Forest Research Institute, Conifer Campus, Shimla, Himachal Pradesh</td>
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<tr>
<td>05:55 pm</td>
<td>Address by Guest of Honor Dr. Wendy M. Purcell PhD FRSA, Professor Emerita &amp; Former President VC, Plymouth Univ. UK; Research Scholar, Harvard University Topic: 'Accelerating delivery of the SDGs: what teachers and HEIs can do'.</td>
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<tr>
<td>06:15 pm</td>
<td>Vote of Thanks by Dr. Manju Ranjan Rawat, Joint Coordinator, Associate Professor, Amity Institute of Environmental Sciences, Amity University Uttar Pradesh, India.</td>
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</table>

Valedictory session was started with the welcome address given by Dr. Ambrina Sardar Khan, Assistant Professor-II, Amity Institute of Environmental Sciences, Amity University with the blessings of Hon’ble Founder President Sir, Hon’ble Chancellor Sir, Hon’ble Vice Chancellor, and mentor AIES. The journey began five days ago with an aim and a hope that we will explore the niche where development and nature can co-exist, will harmonized, and can live together. With the cluster of eminent speakers sharing their research, experiences, ideas and hope to see a better and a sustainable world have paved a path for all of us to begin and to explore new avenues in the Field of Green Technology and UN Sustainable Development Goals “has setup the base to move forward for all of us.
The report Presentation was done by **Dr. Renu Dhupper**, Assistant Professor-III, Joint Coordinator, Amity Institute of Environmental Sciences, briefing the discussion and the deliberations made by various eminent speakers.

She has highlighted the key points of the FDP and explained the outcomes achieved in detail.

**Prof. S. P. Singh, Director ASNRS**

He appreciated and congratulated all the faculty members and team of FDP who were involved for doing excellent job, and he said we are looking forward to continuing to make the programs successful in future as well. He said that this has proved well, and this is one of the examples that if we work in coordination then we can do a very better so.

**Prof. D. K. Bandyopadhyay, Chief Advisor FPO / Chairman, Amity Law School, Mentor, Amity Institute of Environmental Sciences, Amity University Uttar Pradesh.**

He congratulated for the success of FDP. He said that we stared this program in terms of giving recent development in some upcoming field and the topic that we chose under this Guru Dakshta scheme, which is that environmental consciousness and sustainable development goals and this faculty development program and very
correctly it was mentioned with objective to build sensitivity and develop awareness of great technology and sustainable development goals among participants to foster skills in thinking reasoning inquiry and making decisions about the environment and world around them.

He described about the key message of this FDP given to all attendees:

1. Countries need to deliver on their existing commitments to save 1 billion hectares of degraded land and make similar commitments for marine and coastal areas.

2. The massive economic growth of recent decades has come at the cost of ecological health now how do you really take care of that.

3. Ecosystem management is needed on a large scale in order to achieve the sustainable development agenda that is most important thing.

4. How do you really develop that ecosystem management and that you know with careful planning restoring 50 percent of converted lands while stopping further conversion of natural ecosystem would avoid 60 percent of expected species extinctions that mean the biodiversity conservation is what we are talking about.

5. Achieving successful SDG at scale will require deep changes and that those deep changes which includes adaptive inclusive wealth as a more accurate measures of economic progress this will rest on the widespread introduction of natural capital accounting. The second important message that goes that when taking action at food waste making more efficient use of agricultural land and encouraging a ship to a more plant-based diet expanding awareness of the importance of healthy ecosystem throughout our educational systems.

6. Everyone has a role to play in this novel venture that's most important thing and how do you really involve everybody because decadent ecosystem restoration aims to catalyze global movement among local communities, activists, and women, youth engineers in indigenous groups, private companies, financial investor, research and government at all levels. The beauty of this is that it conveys a message of action and hope. It can happen at any scale whether a backyard plot, a city park, a river valley, a national forest or a globally threatened ecosystem this means that everyone can get involved that’s most important thing.

7. Achieving the aims of the U.N decade will require action by many and we won’t talking about it government to ensure that government recovery plans incorporate significant allocation of ecosystem restoration as a central component of to delivering a green sustainable and fair recovery currently only about 18 percent of the recovery stimulus plants can be characterized green.

Prof (Dr.) Balvinder Shukla, Vice Chancellor, Amity University Uttar Pradesh

Hon’ble Madam has congratulated whole team of domain of Natural Resources and Environment Studies under the leadership of Prof. D. K. Bandyopadhyay for organizing wonderful Faculty Development Programme Under GURU-DAKSHTA Faculty Induction Programme and congratulated for the World Environment Day.
This valedictory session becomes extremely important that we are concluding our Faculty Development Program and that to own the green technologies and which is in sync with what is the environment day. The theme that how we are realizing and how we are really working on it. Whether the environment day is the theme is the reimagine, recreate, and restore and this green technology and this UN Sustainable Development Goal hold the workshop which has been done. She gave assurance to all the participants from various universities and colleges who have attended that they are not only going to develop teaching pedagogies, but they are going to integrate these concepts into the curriculum for developing the future generation who are pro-environment for poor natural resources.

Therefore, this faculty Development Program becomes extremely important the vision of the Hon’ble Founder President that how do we as a higher education institution develop the youth which not only contributed to their own career, they make their career but also look at the world requirement, the national requirement, making this world a better place to live because the environment is very important. Environment directly helps the impacts the health environment, directly impacts the agriculture, environment directly impacts the forest natural resources, and what kind of the technology we should use, what kind of the strategies we should make so that we are able to meet all the UN sustainable development goals.

She also said that faculty development program is going to bring not only the improvement in the teaching learning, the curriculum but also the research projects which faculty will be taking, will always be focusing on the SDG, the meeting all the research projects such initiative which will be focused on the community requirement, which will be focused on the environment and so that we become the fully country as a rejuvenate. How the campus to the community, to the city, to the nation, we can take all kind of the initiatives which ultimately contributes to sustainable development goals.

She said on this World Environment Day we all commit that from this FDP which has focus on the green technologies we will move ahead designing and developing the curriculum and the pedagogy and the developing the youth and conducting the research, we will meet the sustainable development goals.
Prof. Tanu Jindal, Group Additional Pro- Vice Chancellor (R&D), Amity University Uttar Pradesh

She appreciated and congratulated all the FDP team and gave good wishes. She said what we have learnt through various speakers we are able to impart to our students and future generations so that they can implement the same in their leads, in their future career and other areas of their life. She also thanked all the eminent speakers which have been part of this five days FDP. She also said sustainability cannot be achieved without using green technologies and many green technologies have been discussed and would like to look forward as students and faculty discover innovate patent in a new technology for the future use so that carbon footprint can be reduced.

Ms. Pramila Thapa, Advisor to Yeti Health, Sciences Academy, Nepal, Former Registrar & Member Secretary of Senate in Purbaanchal University, Bāgmati, Nepal

She is Guest of Honor of the FDP. She expressed her gratitude to the Hon’ble Chancellor and Hon’ble Vice Chancellor for giving this opportunity and congratulated to all eminent speakers, panelists teachers and staff for their hard work and dedication.

She talked about linkage between Emotional Intelligence and Sustainable Development goals. She said that the second issue of the old economic forum: job report predicts the loss of 75 million job by 2025 but it is also predicting the creation of 133 million jobs.
She discussed about Emotional Intelligence Model, Self-Control, Self-Awareness, Self-Responsibility, Social Awareness, and Social Management. Emotional intelligence, the study reveals that higher emotional intelligence is associated with workplace flourishing. She emphasized how to balance the emotional and professional outlook. She discussed self-awareness, self-management, self-control, and social management in details.

She discussed ABCDE model of adoptability, behavior, change, direction, and empathy. She said how this model help us to achieve sustainable goal 3 & 8, good health and wellbeing. She also discussed 3 Ps namely people, peace, prosperity. She also discussed the various issues at the workplace such as nutrition health violence gossip toxic culture role conflict bullying etc. She has talked about the physical comfort and psychological comfort zone as the key to happiness for any workplace. She also spoken about that the mental health and happiness is responsible for a productive and efficient environment she discussed several studies that have revealed that higher emotional intelligence is associated with eco-friendly, environmentally sensitive, resource efficient and socially responsible environment.
Dr. S. S Samant, Director, Himalayan Forest, Research Institute, Conifer Campus, Shimla, Himachal Pradesh

He is the Guest of Honor. He thanked and expressed his gratitude to Hon’ble Vice Chancellor and team of FDP. He gave a brief introduction of the Indian Council of Forestry Research Education (ICFRE). It was established in way back in 1986 under Ministry of Environment and Forest then in 1991 it was established as an autonomous body apex body in the forestry sector and Ministry of Environment and Forest and now it is under Ministry of Environment Forest and Climate Change. The Council works through nine research institutes all across the country and with five advanced research centers out of these nine research institutes and Marine Forest Research Institute is one of them. The broad mandate of the council as well as the institute is the research that includes the managing forest and the forest products for livelihood support and the economic growth.

He also explained about the major threat areas, research division, Himalayan ecosystem, Indian Himalayan region, Ecosystem services. He also discussed that how we can afforest the area and by educating the local people we can achieve sustainability in the coming time. He shared lots of his research and experiments in the Himalayan area to ensure the population of threatened and rare species. He gave detailed facts of the biodiversity that are found in Himalayan region. He emphasized on engaging the communities and r-tribal people in Himalayas in the conservation strategies to ensure ecosystem restoration.
Dr. Wendy M. Purcell PhD FRSA, Professor Emerita & Former President VC, Plymouth Univ. UK; Research Scholar, Harvard University

She is the Guest of Honor. She spoke about 'Accelerating delivery of the SDGs: what Higher Education Institutes can do'. She said just too kind of understand how critical universities, colleges of higher education are to thinking about the world in terms of the future. So when we look and we'll look a little bit at the SDGs we're looking at a world where no one is left behind whether it is this wonderful balance between people, prosperity and planet. What we do here matters? Our responsibilities for future generations, our responsibilities for the knowledge economy, we must take up our responsibilities as universities to deliver against this agenda.

She talked about existential threats like climate change, VUCA world, SDG as a university mission, SDG Goggles, SDG connected Universities, research, innovation and scholarship, technological revolution that's going on as well as all the kind of geopolitical changes, the sense of inequities in society and talked about some really fundamental changes around trust, how trust in politicians, in organizations, in organized religion is being lost. Some huge opportunities to lean into sustainability as a global mega trend. Education has a huge role to play in lifting people out of poverty and lifting people into long-term happy.
Dr Wendy discussed in detail the various megatrends that is important tom address for having a sustainability in the higher education system. She elaborated on the technological change, climate change, political and individual change, uneven growth and inequality, global migration and globalization happening across the globe. She has talked about that how the population is changing? how the people are losing truth and transparency in their behaviours that are resulting into the distrust and environmental degradation?

She discussed about the inter and intra generational availability of resources and she emphasize that how by building trust among the communities we can bring a sustainable change to the world.

She discussed the methodology of 17 rooms to achieve 17 goals of sustainability. She emphasized on the role of education sector to bring the change and inculcate the sustainability in the youth of the country.

She believes the HE institutions plays a vital role in meeting sustainable goal and ots time to come up with strategic academic missions for the same.
At the end of session, the customary duty of presenting a vote of thanks was done by Dr. Manju Ranjan Rawat (Joint Coordinator, AIES). On behalf of everyone and the entire organizing team she thanked Honorable Founder President sir, Honorable Chancellor, Honorable Vice-chancellor, mentor, the Administration of Amity University, esteemed delegates, the scientific community, colleagues, participants and research scholars for their support and being an integral part of our journey and this event. She thanked the Admin, IT team, AUUP for their support throughout these five days FDP and helping since the beginning.

The opportunities that are generated from this FDP will be worked upon and materialise in the future. The following opportunities can be avail:

❖ MOUs with the institutions of the speakers.
❖ Students of B.Sc. & M.Sc. EVS can be send for Dissertation.
❖ Speakers can be utilized as PhD External Guides.
❖ Speakers can be utilized as Industry/ area experts in BOS & AAB.
❖ Generate the opportunity for the placement of our students.
❖ Collaborative R&D projects.
❖ Can be use as resources person for the future events & vice versa.
❖ Training programs and
❖ Consultancy

All the panellists and participants have expressed their thanks and congrats the team of Amity Institute of Environmental Sciences, Amity School of Natural Resources and Sustainable Development and Amity University Uttar Pradesh for organising such a wonderful and extremely beneficial Five Days On-Line Faculty Development Programme on “Advances in Teaching and Research in the Field of Green Technology and UN Sustainable Development Goals”, (Under GURU-DAKSHTA Faculty Induction Programme (Module 9: Environmental Consciousness and Sustainable Development Goals). All the eminent speakers and guest of honour have expressed their gratitude for giving them an opportunity and a platform to share their knowledge, experience and ideas to the academicians, people from corporate and research scholars. The response of the participants was overwhelming and encourages the organising team to come up with many more such type of events soon. With more than 500 people attending the faculty development program for five days itself speaks about the success of the faculty development program.