AMITY UNIVERSITY
RAJASTHAN

Amity University Rajasthan is having strong focus towards non-conventional energy resources to fulfill its ever-increasing energy needs. We have kept the same in the strategic plan and implemented in building construction and required repair of the existing facilities.

University is committed to adopt below initiative to strengthen its green mission.

- Establishment of Solar Park to reduce dependency on fossil fuel
- Acquiring of environment friendly equipment's in its laboratories and other places.
- Use of LED illumination
- Central Air Conditioning System
- Multiple use of recycled water
- Battery operated vehicles for campus use.

University initiatives are well recognized by LEED (Leadership in Energy & Environmental Design – USA) in form of GOLD rating.

University is closely monitoring these initiatives by organizing annual Green Audit and moving towards reducing carbon footprints.

AMITY UNIVERSITY
RAJASTHAN

Amity University Rajasthan has ensured that renovation of all buildings shall follow energy efficiency in the future and has already initiated the process of shifting and upgrading to higher energy efficiency.

Below table shows the current status of upgradation in terms of building energy efficiency. All the lights (Halogens and Tube lights) are replaced with LED lights phase wise as a first step towards energy efficient buildings.

Amity University Jaipur, Rajasthan													20.10.2021	
S. No.	Name of Light	Location	2019	2020	Oct'2021	Total Lights Replaced	LED Wattage	Old light wattage	Wattage Saved	Hr usage/day	Hr usage/ annual	KWh Saved Annual	Total Annual Saving in Rs.	Total Co2 emission Reduced in Kg
1	LED Flood Light	Block terrace/outdoor			66	66	200	400	13200	10	3650	48180	₹ 481,800	40953
2	LED Flood Light	Block terrace/outdoor			19	19	100	400	5700	10	3650	20805	₹ 208,050	17684
3	LED Street Light	Outdoor			20	20	60	150	1800	10	3650	6570	₹ 65,700	5585
4	LED 4 ft. Tube Light	Academic block Corridor/Office	123	320	580	1023	18	45	27621	12	3960	109379	₹ 1,093,792	92972
5	LED 4 ft. Tube Light	Hostel Corridor				150	18	45	4050	12	3600	14580	₹ 145,800	12393
6	LED bulb 9/13 watt	Lift shaft/misc.	22	80	20	122	12	60	5856	12	1800	10541	₹ 105,408	8960
7	LED roud light 4"	Lift Car			15	15	6	20	210	24	8760	1840	₹ 18,396	1564
8	LED roud light 7"	Academic blocks		50	100	150	15	45	4500	9	1800	8100	₹ 81,000	6885
9	LED PLL 4 pin	Academic blocks		75	100	175	18	54	6300	15	4500	28350	₹ 283,500	24098
											Total	**248345**	**₹ 2,483,446**	**211093**

Solar Power Station

Amity University Rajasthan has already adopted onsite solar power in association with Clean Max Solar. Amity University enjoys a strong tradition of excellence in innovation. The cumulative capacity of solar power plant is 1.8 MWp.

AMITY UNIVERSITY
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Kant Kalwar, NH-11-C,
Jaipur (Rajasthan) 303002
Tel: 01426 - 405678,
Fax: 01426 - 405679

No. : AUR/REG/December/2019/02

Date : 30/12/2019

Notice
(Banning of Polythene Bags and other plastic packings)

Environmental issues do need the attention and concern of all of us. Polythene bags and other plastic disposable plates/cups etc. are non-biodegradable and pose a serious threat to the environment. Advisories against use of such items in the AUR, Campus have earlier been issued and awareness programmes to make campus polythene/ plastic free were undertaken. However, it has been observed that of late few vendors have again started use of plastic cups/ plates/polythene bags.

In a bid to make AUR campus an environmental friendly campus, all Employees, Students and Vendors are hereby informed that use of plastic cups/ plates/polythene bags etc. within the university campus shall be banned from 01/01/2020 onwards. It is requested to make alternative arrangements and be involved in active awareness campaign.

All Deans/Directors/HoIs are requested to ensure wide publicity and motivate members of faculty/staff and students to make AUR a Polythene Free Campus.

HR

AMITY UNIVERSITY RAJASTHAN JAIPUR

Dr. Nitin Bhardwaj
Registrar

1. Director - Administration

   To instruct all vendors in the SRC and elsewhere on AUR Campus to comply with the decision and make arrangements.

2. Director – Hostels –

   To instruct all wardens to keep watch and accordingly counsel the students against the use of polythene bags.

3. Dy. Director – Security –

   It is requested to instruct the security guards at main gate to ensure that no material/goods are brought inside the campus in polythene bags.

4. Coordinator Amizone Cell –

   To publish the notice on Amizone Student's Notice Board

AMITY UNIVERSITY
RAJASTHAN

Amity University has joined a select league of colleges and educational institutions that have gone solar to meet energy demands and usher in a greener, cleaner tomorrow. Amity's solar PV projects have been installed in the Jaipur campus with a cumulative capacity of 1.8 MW. These projects have been developed by Clean Max Solar under OPEX model. The Amity University Jaipur campus meets almost 50 percent of its electricity requirement from solar. The solar projects are expected to generate over 2,762,388 kWh units per annum of electricity cumulatively, thereby abating 2,265 tons of carbon dioxide annually for the next 25 years.

Other Carbon emission reduction initiatives

1) Golf Carts – use of Golf Carts within the campus premises for the guests entering the campus.

2) Neem Forest

3) Battery Car for students movement

4) Waste Management –(Electronic Waste & Plastic Waste)

AMITY UNIVERSITY
R A J A S T H A N

Amity University Rajasthan complies with the state government and national policies on utilizing non-conventional energy resources and has invested in research and technology to reduce energy consumption across its campus. The vision of the green campus at Amity University Rajasthan comes to practical accomplishment with the following initiatives and investments

1. AUR has 24*7 electric supply through JVVNL and through its own captive power back up from DG sets.

2. With a view towards an energy conscious campus, AUR has installed solar panels on terraces of various buildings and has a ground tracker solar panel system.

3. The total sanctioned load for AUR from JVVNL is 3200 KW. AUR has taken approval presently to utilize 2490 KW out of sanctioned 3200 KW. AUR has twosubstations and has captive power generation capability to the tune of 4700 KVA through 9 DG sets installed near sub stations. The Solar Plant can generate a total of
0.99 MW or approx. 40% of AUR's total requirement.

4. Peak load, during summers, with all three chillers of air conditioning system running is in the region of 2400 KW. The minimum load is approx 700 KW (with no chillers/ less geysers operating). This is in the months of Nov and in Feb. The electricity bill varies between a maximum of Rs 58 lakhs and minimum Rs 25 lakhs.

5. The residents are provided subsidised electricity.. The vendors are charged at a rate calculated by giving due weightage to the units consumed on JVVNL and DG supply.

6. AUR has also got net metering connection with JVVNL, any excess generation of electricity through the solar panels is channeled to JVVNL grid, thus further saving on electrical cost.

7. Fitment of Solar panels has resulted in savings of Rs 6 lakhs (approx.) per month presently.

8. General Measures -The measures adopted to ensure optimal utilization ofelectricity are as follows

- Unserviceable Pumps motor winding is done only twice after which the pump is made redundant. This is because further rewinding will increase the load current of the pump.

- General Awareness is spread amongst all stakeholders to lower consumptionof electricity and take proper precautions. Proper consumption at residences/vendor outlets is monitored through fitment of electronic meters.

- Residents / Students are made aware of the need to s/w off electrical appliances like tubelight / fans before leaving their rooms. They are also advised to stop keeping appliances like TV, Air Conditioner etc in stand by mode.

- Wardens in Hostels ensure that geysers are switched off when not in use. Hostel staff ensures only optimum lighting is used in the common areas of halls, lounges and staircase.

- Attendants in various Academic Blocks ensure that lights/fans are switched off in lecture theatres and classrooms when classes are not being held. Duty attendants also ensure that only necessary lighting is switched on after 6 pm.

9. Chiller Plants

- Air Conditioning system is on AMC to ensure efficient operation and regular maintenance.To increase the efficiency of the chiller plants daily inspection and periodic maintenance as required is carried out.

- Preventive maintenance (descaling etc) is carried out during the lean period. This ensures that electricity consumption does not increase significantly with ageing of the chillers.

- Chiller plants are used only on as required basis. Timing of usage is between 9 am to 5 pm from 01 Apr to 31 Oct.

- Records of Chiller plant operation and Power consumption are maintained and monitored to ensure that load current does not increase.

10. DG Sets/Electrical Panels/Transformers/line losses/Power Factor

- A dedicated team of electrical engineer and DG operators ensure effective running of the DG sets. Planned Maintenance is carried out at regular intervals as defined for the DG sets.
- DG sets are being synchronized to ensure max load (80% of DG rated capacity) on a particular DG set is achieved before other DG set is brought in line. This ensures reduction in fuel consumption due avoidance of unnecessary

running of second DG set. Record of DG sets running and servicing is maintained.

- Timely servicing of electrical panels and transformers is carried out.

- Proper rating cables are used to ensure that no cable is overloaded. This isto ensure line losses are minimum.

- Maintaining a higher Power Factor ensures stable current and reduction in its consumption. AUR is presently achieving a power factor of 0.98. Rebate is given by JVVNL for achieving a higher PF and AUR has received a max of Rs 1.75 Lakhs in a month last year. The average rebate given by JVVNL last year was approx. Rs one lakh per month.

11. MIS Daily and monthly MIS reports are compiled in soft copies. The same arescrutinized and provide a check to improve the system efficiency.

The Way Ahead

1. As the university expands there will be an increase in the level of power consumption. The emphasis will thus be on optimum utilization of this resource and thusconcentration will be towards LED fitment and use of Solar Power. At the same time it has to be seen that existing fitments are utilized completely. Hence changeover to LED, which will be the first step, will be done in a phased manner over the next 5 years.

2. **Changeover to LED in Phases**

- AUR had approx 10,000 no. of 36 watt fluorescent tube lights fitted in Academic Blocks, Hostels and Residential Blocks. The 3100 tube lights fitted in Academic Blocks are proposed to be replaced by 18 watt LED tubes in the initial phase.

- The testing of LED tubes and their compatibility with the existing frames has been checked. **Similarly, there are 85 security lights of 400 watts each whichhas been replaced with 100/200 watts LED lamps in 2021.**

- The Tublights, chokes & starters removed from Academic Blocks will be utilizedin the hostel / residential blocks. Subsequently fluorescent tubelights of Residential Blocks will be replaced, with those in hostel being replaced in the lastphase.

- AUR has already replaced 1740 nos. of old fittings (inclusive of all types like security, panel and normal tube lights) with new LED in a period 18 months i.e. from Mar'2019 to Oct'2021 **saving approx. 680 units daily.**

Electricity Generation Through Solar Power

3. As AUR already has a sanction of 3200 KW from JVVNL and is generating 990 KW from solar, it is estimated that there will be no requirement of additional power to be sanctioned

from JVVNL for the next five years. There is also a thought to extend the ground tracking system to generate additional solar power.

LED Lights in all corridors of the University

AMITY UNIVERSITY
RAJASTHAN

TOWARDS AFFORDABLE & CLEAN ENERGY

Amity University Rajasthan has always been an environmentally conscious and socially responsible campus which makes it truly sustainable. Amity University Rajasthan is having strong focus towards non-conventional energy resources to fulfill its ever-increasing energy needs. In order to review the status of Energy Consumption and identify prospective areas of improvement, the management regularly conducts Green Audit . The Reviews are noted for further implementation. Some of the broad areas of Audit are as follows…..

1. Total Consumption
2. Sanction Load and Load used actually
3. Solar Plant contribution
4. Timely repair and maintenance of Electrical Equipment's
5. Monitoring of Chiller Plant
6. Synchronization of DG Sets
7. Changeover to LED in phases

AMITY UNIVERSITY
R A J A S T H A N

Divestment Policy **12.09.2019**

Amity University Rajasthan has prepared and successfully implementing its strategic plan to strengthen environmental consciousness and committed to reduce dependency on fossil fuels.

To achieve the same, we have focused on renewable and non-conventional energy resources and allotted dedicated land for solar park and established roof top solar panels on its academic and residential buildings and producing nearly 40% of the electricity need.

We are preparing and inducting below listed new initiatives to make university campus with Low carbon foot prints.

- Campus administration is ensuring smart use of electricity and water to avoid unnecessary use of power resulting in power back requirement through use of oil-based generators
- Battery Operated Vehicles for intra campus movements
- Use of recycled water for irrigation of its green belt
- Irrigation in night shift to reduce water loss
- Use of treated water as cooling agent in Central Air Conditioning System
- Encourage residents to reduce Fossil fuel base vehicles in campus
- University has adopted solid/liquid/E Waste/ Hazardous Waste management to minimize load on campus environment

University gives serious focus on reduction in the use of fossil fuel and investing on alternative resources to minimize the same.

AMITY UNIVERSITY
RAJASTHAN

REPORT of Green Technology and Sustainable Development (GTSD 2021)

At Amity Institute of Biotechnology, Amity University Rajasthan, Jaipur

14th to 18th June 2021

1. Name of the Institute:	Amity Institute of Biotechnology, AUR, Jaipur
2. Event Category: Workshop, Seminar, Guest Lecture, Cultural Event etc..	Faculty Development Program
3. Name of the Event:	Green Technology and Sustainable Development
4. Venue of the Event:	ONLINE
5. Attended by No. of Students/No. of Faculty/No. of Guests/Parents/ Students of other colleges	200 Participants including Academicians, Research Scholars from different Institutes, Universities of India.
6. Details of the Events:	It is 5 Days FDP which was sponsored by ATAL-AICTE. Different approaches related to green technology and sustainable technologies were discussed such as waste water treatment along with value added product recovery, 3D printing in Biotechnology, Mushroom cultivation for sustainable development, thin film solar cells, biodegradable composites, nanocomposites for sustaibale development, research opportunities in nuclear waste management. One session on stress management was also delivered.
7. Date & Time of start and end of the event :	14th June to 18th June 2021 (Every days 3 session were held and time was 10-11:30 am, 11:45-1:15 pm and 2:30-4:00 pm)
8. Name of the Chief Guest(s) with designation, if any.	None
9. Name of the Resource Person(s)/ Speaker(s)/ Guest(s)/ Celebrity(s)	1. Prof. B.N.Mishra 2. Dr.Lalit Singh 3. Dr.Pawan Kumar Rakesh 4. Dr.Surajit Das

	5. Dr.Sanjeev Kumar 6. Dr.R.K.Joshi 7. Prof. P.Rajaram 8. Prof. Vinay Sharma 9. Dr. Maneesh C Srivastava 10. Dr.Pooja Dubey Pandey 11. Prof. I.S.Thakur 12. Dr.Avdesh Kumar Sharma 13. Prof. Amit Jain 14. Prof. Balasubramanian Gopalswamy
10. Name of the Coordinator/ Facilitator of the Programme	Dr.Shweta Kulshreshtha, Amity Institue of Biotechnology, Amity University Rajasthan, Jaipur Dr.Nitesh Singh Rajput Amity School of Engineering and Technology, Amity University Rajasthan, Jaipur
11. Further Scope of the event (i.e. Collaboration etc.):	As 90% participants were from different institutes and there were eminent speaker from different institutes which will give us the opportunity to collaborate.
12. Image: Image must be of better quality. Images are mandatory with Caption. It is requested to follow the format of the event details & pixels of photographs (984px X 452px).	
13. It is also requested to identify at least two best Images with appropriate caption for Website Home Page required for approval by Hon'ble Chancellor Sir before uploading.	

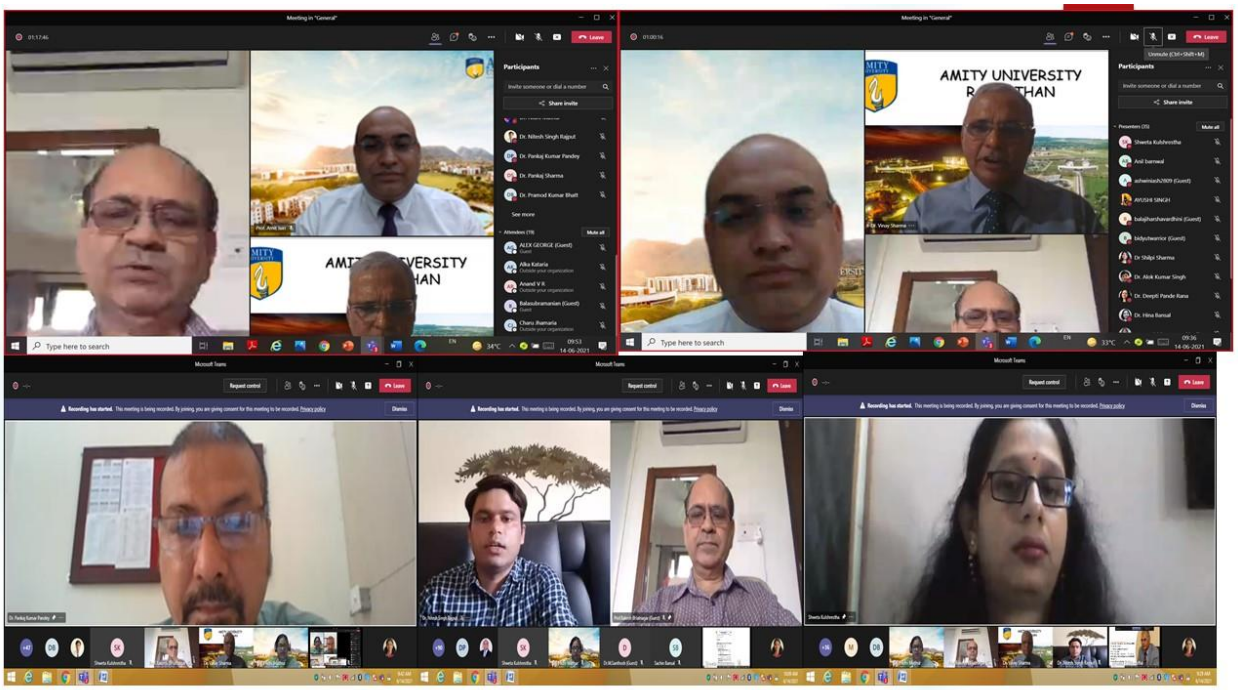

Photo 1: Glimpses of INAUGURATION

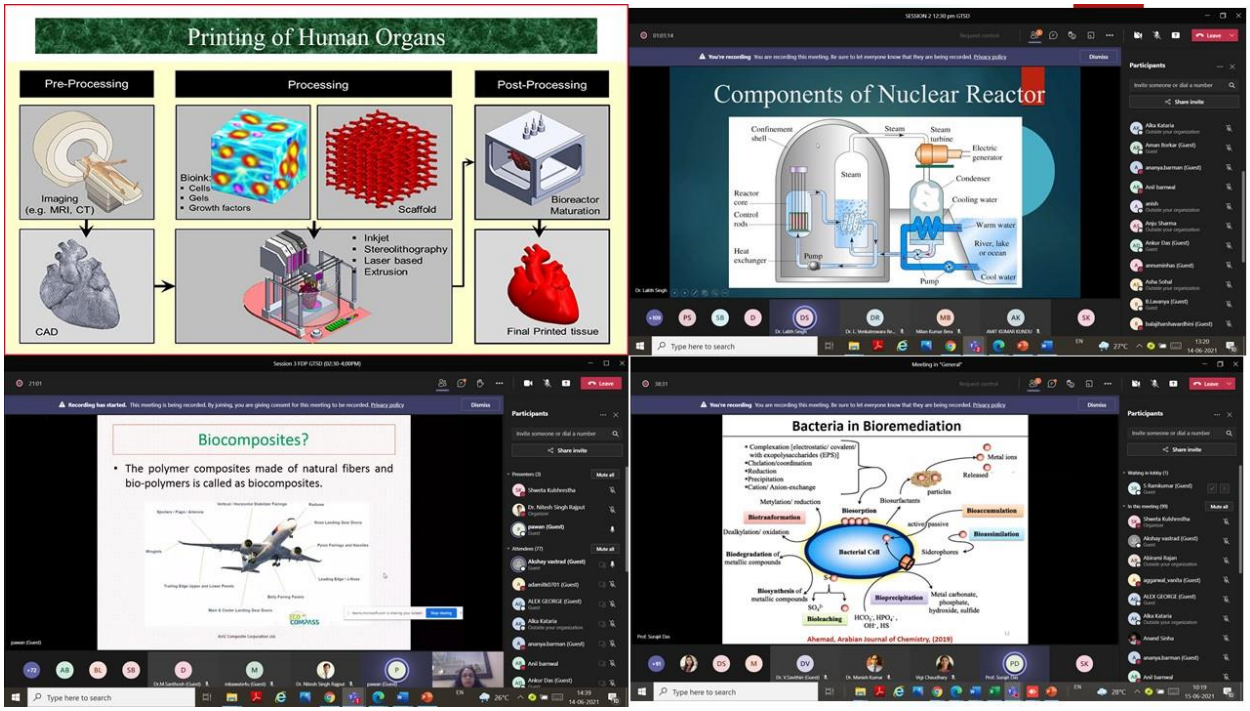

PHOTO 2: GLIMPSES OF SESSION 1-4

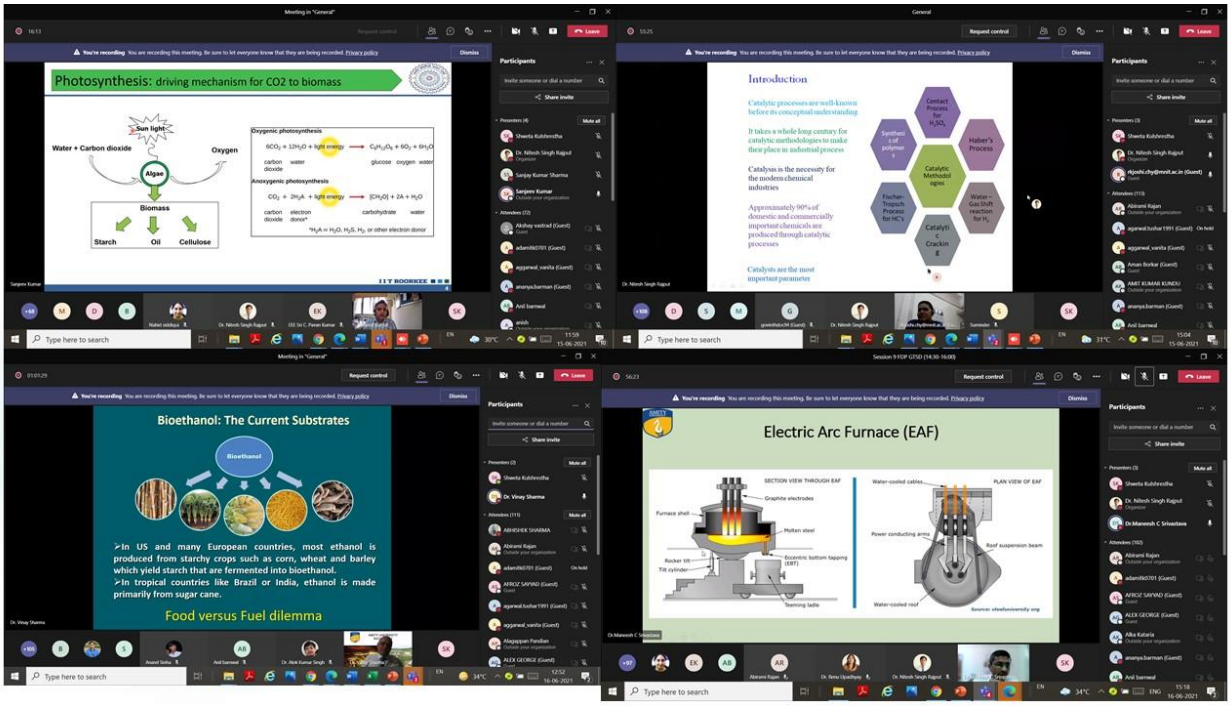

PHOTO 3: GLIMPSES OF SESSION 5-8

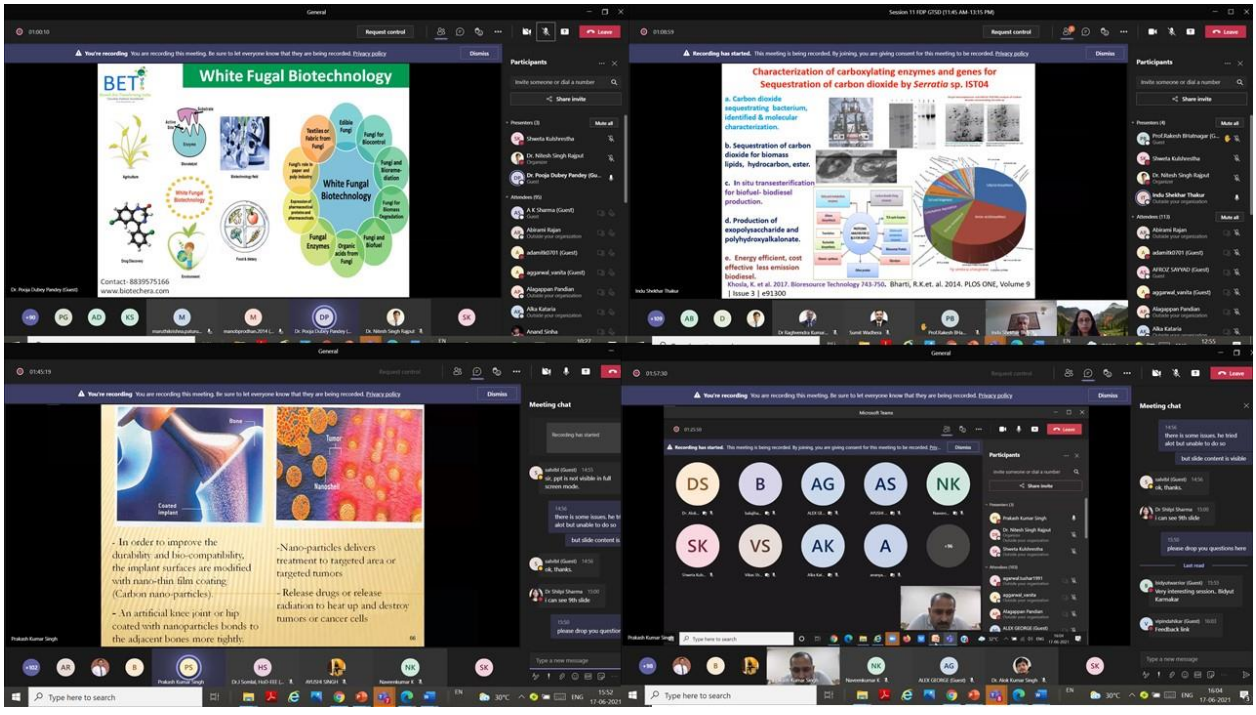

PHOTO 4: GLIMPSES OF SESSION 9-12

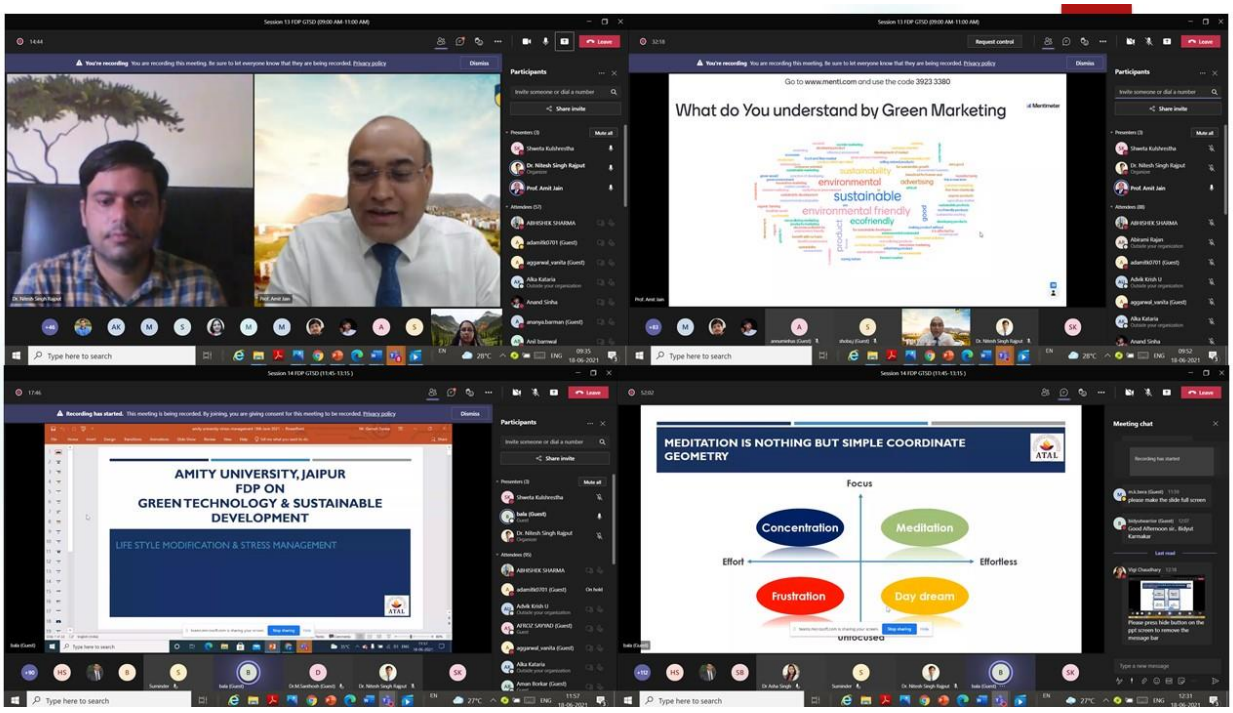

PHOTO 5: GLIMPSES OF SESSION 13-14

AMITY UNIVERSITY
RAJASTHAN

Kant Kalwar, NH-11-C,
Jaipur (Rajasthan) 303002
Tel: 01426 - 405678
Fax: 01426 - 405679

Complete this pledge and do your part to conserve natural resources and protect the natural areas that we are so lucky to have here in Amity University Jaipur, Rajasthan India.

Conservation Pledge

I Promise to do my Best -

Water Conservation

Turn off the water while brushing my teeth.

- Using a bucket to bath instead of a shower.
- Refer to the concern department if I see a leak.

Energy Conservation

- Turn off the lights when the room is not being used.
- Close the door when I go in and out of the house.
- Not stand and hold the refrigerator door open.
- Unplug phone and Computer when not in use.
- Replacing traditional light bulb with energy efficient bulb.

Waste Reduction

- RECYCLE! At home and on the go. Recycling helps to save energy and natural resources.
- Get reusable shopping bags and have the family use them while shopping.
- Pack my lunch in a reusable bag or container.

Air Quality

- Bike or walk instead of riding in the car.
- Ride the bus or carpool.
- Practice natural cleaning instead of using chemicals.
- Encourage friends and family to use public Transport.

Land/Natural Area Protection

- Practice "Leave No Trace" principles
- Not throw trash on the ground
- I will Plant More than one tree every year and I will also care for it.

Signature : NB

Name : DR. NITIN BHARDWAJ

Designation : REGISTRAR

Date : 02/01/2020

AMITY UNIVERSITY
RAJASTHAN

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Jaipur (Rajasthan) 303002
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Signature : _____

Name : RAHUL JAIN

Designation : Office Superintendent
Registrar office

Date : 2nd January 2020

AMITY UNIVERSITY
RAJASTHAN

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Jaipur (Rajasthan) 303002
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Signature : Shashank

Name : SHASHANK SHARMA

Designation : EXECUTIVE ASSISTANT

Date : 02 JAN. 2020

AMITY UNIVERSITY
RAJASTHAN

Kant Kalwar, NH-11-C,
Jaipur (Rajasthan) 303002
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Fax: 01426 - 405679

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Signature : Kan

Name : Kamlesh Kumar Sharma

Designation : Office · Asst.

Date : 02/1/2020