



IDP-NAHEP Pantnagar Updates

G. B. Pant University of Agriculture & Technology
Pantnagar 263145, Uttarakhand

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Message of IDP Leader, GBPUAT, Pantnagar Welcoming 2021 with Optimism and Enthusiasm

The last one year has been unprecedented, yet revolutionary in several aspects. The COVID-19 pandemic enforced a change in the academic arena, and I feel pride in the way the University fraternity worked in this peculiar situation. Looking back at the initial challenges posed due to lockdown and closure of academic institutes for an unknown time period, I would like to place on record the relentless leadership and support of IDP-NAHEP Pantnagar team in effective management of all academic and administrative activities of the University during this tough time. Their infrastructural and capacity building interventions indeed helped the University to take a giant leap in terms of essential digital advancements and at several other developmental fronts. Be it digital classroom development or establishment of e-content development studio or 3D and virtual reality classroom, strategic inputs and outcomes were visible which benefitted the University and its stakeholders and will continue to do so for a long time. Now at the onset of year 2021, I aspire that the system and structure of IDP-NAHEP will continue to work as a strong supporting pillar for the University will work more intensively to cater to the challenges of agricultural education development.

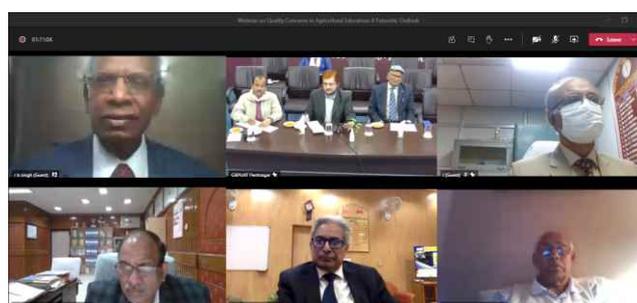


(Tej Partap)

National Webinar on Agricultural Education Day

Deliberations by Padma Bhushan Dr. R.B. Singh, DDG Education Dr. R.C. Agrawal,
and Former VC AAU Jorhat Dr. A.N. Mukhopadhyay

On the important occasion of National Agricultural Education Day (December 3, 2020), the Faculty Development Centre, Pantnagar organized a National Webinar on *Quality Concerns in Agricultural Education: A Futuristic Outlook*. It was a matter of honour and privilege for Pantnagar University, FDC, Pantnagar and IDP-NAHEP, Pantnagar to have stalwarts who have contributed their life and deeds for the cause of agriculture and agricultural education as speakers for the webinar. Dr. R.B. Singh, recipient of Padma Bhushan, Former Chancellor, Central Agricultural University, Imphal and Former President, National Academy of Agricultural Sciences; Dr. R.C. Agrawal, Deputy Director General (Education), Division of Agricultural Education, ICAR and National Director NAHEP; and Dr. A.N. Mukhopadhyay, Vice-Chancellor, Assam Agricultural University, Jorhat and Former President, Indian Phytopathological Society



and Former President, Agricultural Section, Indian Science Congress were the distinguished stalwarts who deliberated and intrigued the stakeholders of agricultural education to set on the path of contemporary revolution.

Initially, Dr. Mukhopadhyay stated that we need to know the real situation that we have in the country, in the terms of agricultural education and institutions. With changing times not only research and

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3-Days Online Training on Classroom Management Held under FDC, Pantnagar

Realizing the need of making the faculty members adapt to the new digital classroom a three day online training session on classroom management was held under Faculty Development Centre, Pantnagar from December 1-3, 2020. The three days training was led by Dr. Pratima Khandelwal, Founder and CEO, FlyHigh Educational Excellence Services, Bengaluru and Dr. Poorna Shankar, CEO, Poorna EduSolutions, Bengaluru. Dr. Pratima comprehensively discussed about the concept of classroom management and stated that adapting to the new normal and living in the era of Education 4.0 requires the development of empathy both on the part of teachers and the students. Giving instances of her personal experience of online teaching she stated that in online teaching we need to understand whether our learner is analytical, creative or thinker and accordingly we must plan our lessons to cater the needs of diverse type of learners. The second day of the training was led by Dr. Poorna Shankar. She said that in online teaching the episodes of personal interactions are very limited therefore as a teacher it is needed that we emphasize on enhancing the learning by doing aspects. She also demonstrated how using softwares, mind



Dr. Pratima Khandelwal
Founder
FlyHigh Educational Excellence Service
Bengaluru



Dr. Poorna Shankar
Founder and CEO
Poorna EduSolutions, Pune

maps, concepts maps, word cloud, flowcharts the learners' attention can be retained for a longer spell, that too with added interest. The third day of the training was led by Dr. Pratima and she focussed on acquainting the faculty members with the utilities of online assessments.

The training was coordinated by Dr. R.C. Srivastava, Professor, and Head, Physics, Dr. Sanjay K. Sharma, Professor, Livestock Production Management, Dr. Anupama Pandey, Assistant Professor, Home Science Extension, GBPUAT, Pantnagar. Dr. S.K. Guru, Coordinator, FDC said that more such trainings will be organized focusing on the changing needs of teaching environment to help faculty members get equipped with required skill sets.

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development needs strengthening but also focus must be given on developing and deploying good quality human resource in agricultural universities and at agricultural research centres. Adding to his viewpoint, Dr. Singh, reflected that we need the academic rigor for contextualization of the emerging challenges for all stakeholders of agriculture. Highlighting the need for reforms, he stated that the widening disconnect between education, research and extension, is resulting in knowledge deficit at different levels which is limiting the internalization of relevant international trends and developments and causing indifference of youth towards agriculture. He suggested that we need to develop a socio-economic component of complex agricultural economic system in a way that it can be delivered and understood by all and the existing enigma where abundance is coupled with deficiency can be cured. Dr. Agrawal further highlighted that ICAR is constantly working towards the development of a very vast platform of a resilient agricultural education system keeping into consideration the National

Education Policy document. He comprehensively elaborated on the developments and interventions made under the NAHEP, Student's READY and ARYA programmes for enhancing the teaching and learning ecosystem. He stated that not only the digital initiatives have been put into place by creating the management systems but also mechanism of assessing the impact of such efforts is going on, so that the outcomes can be improved accordingly.

Assimilating the novel thoughts and insights of all the stalwarts, Dr. S.K. Kashyap, Dean, College of Agriculture and PI, IDP-NAHEP, Pantnagar concluded that it is the high time to think upon the key concerns that were raised by the esteemed speakers and realize how we by keeping the sanctity of our roles can help towards development of agriculture and agricultural education. The webinar witnessed the presence of leading professionals and academicians of agriculture along with the students, faculty members, alumni, deans and directors of different agricultural universities of the country.

Rewire Your Brain - Personality Development Workshop Held Online

The best way to predict the future is to create it. Keeping in mind the importance of personality development, IDP-NAHEP, Pantnagar conducted a Brainstorming Personality Development workshop on *Rewire Your Brain to Design Your Pathway* on December 24, 2020. Dr. Ganesh Srinivasan, a renowned personality development trainer and mentor from Karnataka was the expert of the workshop. The interactive workshop started with the lessons of effective communication and its importance in life. Dr. Srinivasan stated that in student life it becomes important for us to believe and understand ourselves in order to set a realistic goal for oneself. In the present context, we are surrounded with enormous information and thus human brains have information highways where often collisions keep on occurring and thus we need to learn to walk carefully through these highways. Adding to this, the expert stated that it is

our perception that makes us believe into things and helps us achieve whatever we desire in life. Talking about being successful in career, the expert advised the participants to start working towards developing some very essential traits like perseverance, focus, observation, quest for knowledge and ability to do effective communication in them. The participants expressed that they felt extremely motivated and focused by the end of the session. A total of 67 participants got benefitted from the workshop. Dr. S.K. Guru, Nodal Officer (Academic), IDP-NAHEP added that such workshop serve to give orientation of life skills to the students for helping them gain more depth and understanding in life.

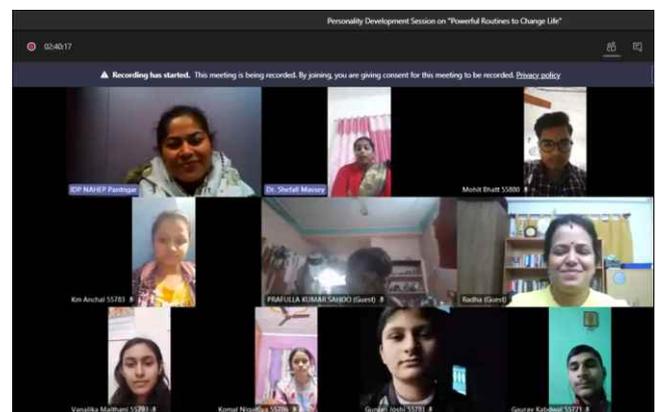


Dr. Ganesh Srinivasan
Personality Development Trainer

Students Guided on Powerful Routines of Being Successful

Certified Psychoanalyst and CEO, Smart Series Led the Session

Powerful routines are the basis of leading a healthy, happy and successful life. The online session with Ms. Radha Shankarnarayanan, CEO, Smart Series, Bengaluru held on December 8, 2020 under IDP-NAHEP was organized with the same intent of orienting the students of University with the philosophy of powerful routines. Dr. Amit Kesarwani, Project Scientist, IDP-NAHEP, Pantnagar stated that the need of routines in student life is very much needed and session by Radha Ma'am will help the students in a long run. Ms. Radha stated that as an individual we must plan and structure ourselves for goal setting. She added that student life is very crucial for building a strong foundation of powerful habits. She elicited that the three powerful habits are - getting up the moment one wakes up, avoiding using mobile phone within 30 minutes you wake up and making it a habit of stop using mobile phone one hour before going to sleep each night. Ms. Radha, being a certified psychoanalyst stated that in order to make routines of good habits one must follow some basic thumb rules. Adding to this, Ms. Radha elucidated that we being grown-ups must be able to prioritize things as per our priorities, surround ourselves with people who can support our

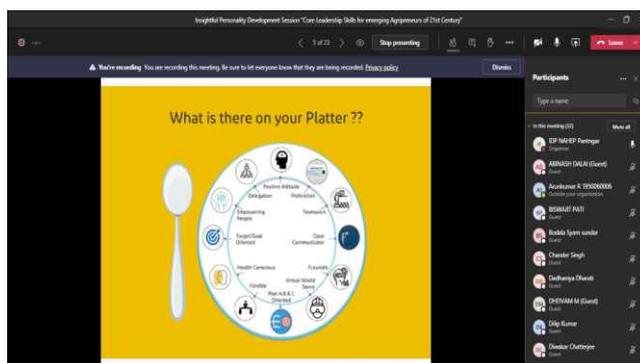


learning and growth and live in the real world to become more sensitive and conscious towards our surrounding. Concluding her deliberation, Ms. Radha stated that she can help each and every participant to come up with time schedule of good habits for themselves, with a condition that commitment is needed on the part of individual to stick to those habits whole heartedly. Dr. Shefali Massey, Project Scientist, IDP-NAHEP delivered her thankful words to the expert for guiding the University students on such a relevant and apt issue of being organized and ensuring success in life. A total of 94 participants attended the session and gave encouraging feedback about the session.



Young Minds Nurtured on Developing Leadership Skills of 21st Century

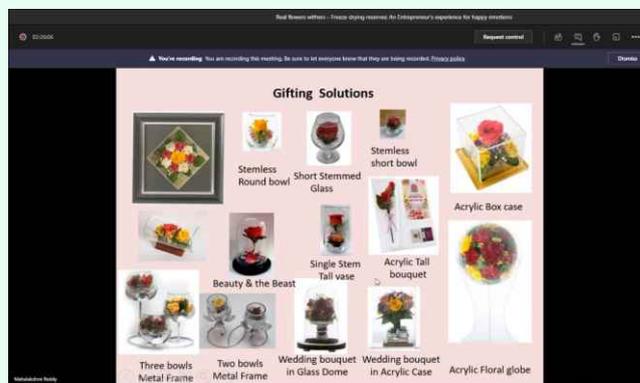
Leadership is an art which evolves and emerges by a mix of various traits. In order to give insights to the young graduates on the essential traits required by the emerging leaders of the 21st century a session was held with Mr. Vijay Upppal, CEO and Director, Upfront Advertising Pvt. Ltd., New Delhi on December 4, 2020. Dr. S.K. Guru, Nodal Officer (Academic), IDP-NAHEP stated that leadership skills are essential for helping individuals emerge as aspiring leaders of tomorrow and therefore IDP takes it as its top priority to organize lecture sessions on such topics on regular basis. Keeping the session extremely interactive and interesting, the expert focussed on giving essential tips to the participants on ways to develop 12 most essential leadership skills. Relating each of the 12 core skills i.e., Positive Attitude, Motivation, Team Work, Clear Communicator, Futuristic, Virtual World Savvy, Plan A, B and C-oriented, Flexible, Health Conscious, Target/ Goal-Oriented, Empowering People, and Delegation, with a related cuisine (food recipe), he



tried to make the UG students of the University understand what each of the skills call for. He added that the leadership platter calls the individual to master all the 12 skills after developing an in-depth understanding of each of the skills. The participants were enthusiastic about the methods used by Mr. Vijay, and the way he tried to explain the spirit behind each of the essential leadership skills. After the session, the participants had put forth their queries which were taken up by the expert.

Guest Lecture Organized on Freeze Drying Technology

The Innovation and Incubation Centre of IDP-NAHEP, Pantnagar organised an online guest lecture on *Real flowers Withers - Freeze drying reserves: An Entrepreneur's Experience for Happy Emotions*. The guest lecture was organized on December 11, 2020 and was delivered by Dr. Mahalakshmi V. Reddy. She retired as a Professor and Associate Dean in 2016 from Professor Jayashankar Telangana State Agriculture University after serving 36 years as an academician, administrator and scientist. Presently she is a successful entrepreneur and founder of Lyo Florals. The lecture initiated with a brief introduction of different methods and technology of drying flowers. Later she described about freeze drying technology, and mentioned that natural flowers are preserved with advanced preservation technology to retain its inherent qualities. These natural looking lyophilized flowers are designed to serve as gifts for all personal occasions and social and corporate events. She highlighted that specific flowers associated with the sentiments of special events like engagement, wedding, anniversary, etc. are made into customized design for eternal memories. She even demonstrated different dried flower products developed by her organization for different occasions. Connecting with



her experience, she elaborated the process of entrepreneurship development, marketing of the products, advertising and GST etc. Overall, the session was insightful and thought provoking and provided a direction to the participants for utilizing their creative skills and technical knowledge simultaneously. A total 72 participant and various eminent scientists of different universities were present in the session. Dr. S.K. Kashyap, Dean, College of Agriculture and PI, IDP-NAHEP and Dr. A. K. Upadhyay, Professor and Head, Veterinary Public Health and Epidemiology, Coordinator, Innovation and Incubation Centre, IDP-NAHEP applauded the expert for her insights and inspiration to the students.

Combating Climate Change through Agroforestry: An Interactive Session

An online interactive session on the topic *Agroforestry: A Resilient and Sustainable Strategy to Combat Changing Climate* was organised by IDP- NAHEP, Pantnagar on December 29, 2020. The expert for this session was Dr. Rajesh Kaushal (Principal Scientist, ICAR - Indian Institute of Soil and Water Conservation, Dehradun). The session started with the introduction of the topic wherein Dr. Kaushal explained the concept of agroforestry and its types. He explained in details the adaptation, advantage and importance of Poplar based agroforestry, Eucalyptus based agroforestry and Subabul based agroforestry in different states of India. He also threw light on the growing importance of bamboo farming in the hilly regions of the country particularly in Uttarakhand. He further elaborated on aspects of climate change and how agroforestry can be an effective solution in addressing it. Dr. Kaushal explained to the participants that the diverse climate patterns in India majorly rain

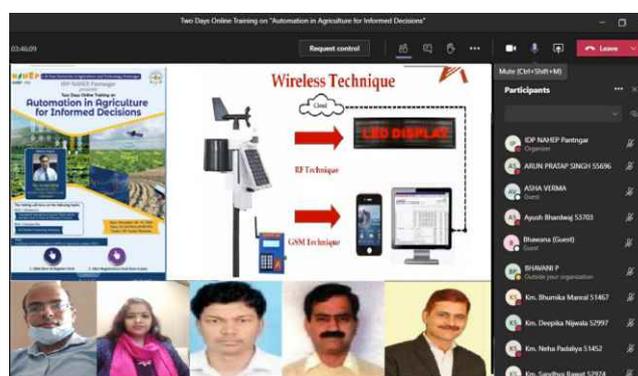
dependent agriculture, makes India as a country more vulnerable to climate change. He highlighted how UNFCCC and Kyoto Protocol has made carbon a tradable commodity as well as India's intended nationally determined targets to address climate change. Some of the popular policies in India combating climate issues such as National Afforestation Programme, National Mission for Green India, National Green Highway Mission were discussed by him. As a concluding note, he mentioned that climate change is a reality and large scale adaptation of agroforestry on arable and degraded land has potential to mitigate it. The overall training session provided new insights into the topic and was an enriching experience for all the participants.



Dr. Rajesh Kaushal
Principal Scientist
ICAR - Indian Institute of
Soil and Water Conservation
Dehradun

2 Days Training on Automated Agriculture System for Better Informed Decision

The Agri-Informatics component of IDP-NAHEP, Pantnagar conducted a two days training programme on *Automation in Agriculture for Informed Decisions*. The training was organized online on December 18-19, 2021 and was held on the Microsoft Teams platform. Mr. Arvind Dixit was the expert of the training. He is Chief Executive Officer and Director of Advance Technology, Pvt. Ltd., Chandigarh. He initiated with an elaborate description of intelligent agriculture and weather information system and its applications. Thereafter he focused towards IoT (Internet of Things) smart farming solutions. It is a system that is built for monitoring the crop field with the help of sensors (light, humidity, temperature, soil moisture, crop health, etc.) and automating the irrigation system. The farmers can monitor the field conditions from anywhere. Further, the training intended to given an exposure to students regarding decision making processes using digital technology. Especially in context of agriculture, different stakeholders experience different situations and have to engage in various levels and various kinds of decisions. Thus, the training emphasized on decision support system for management, operations,



planning, and optimal solutions for the agricultural sector.

Dr. S.K. Kashyap, Dean, College of Agriculture and PI, IDP-NAHEP presented the overview of entire IDP-NAHEP programme and encouraged all participants to understand and develop technology based prototype solutions. Dr. A.S. Nain, Director Research of Pantnagar University and Coordinator of Agri-Informatics component further emphasized upon the importance of automation technology and its extensive usage in times to come. Dr. Rajeev Ranjan, Assistant Professor, Department of Agrometeorology was the coordinator of the training. A total of 130 students participated in the training programme.



International Lecture Series Organized by IDP-NAHEP

Experts from 10 International Academic Institutes Addressed University Students

The IDP-NAHEP, Pantnagar in its efforts to strengthen international collaboration aligned with academic experts of leading institutes from around the world. In the month of December 2020, an international lecture series was held on varied, contemporary issues pertaining to agriculture and allied sciences. This lecture series had experts from 10 universities from around the world. Corroborating

with the project mandate, IDP-NAHEP, Pantnagar nurtures students to emerge as global professionals for which one requires to possess certain skill sets and knowledge that provides them strong technical and soft skills. Thus, the lecture series focused on both the aspects to provide a wholesome learning experience to the University students. A brief description of the expert and lecture topic are as follows:



Dr. Rameshwar Kanwar
Professor, Agriculture and Biosystems Engineering, Iowa State University, USA

Lecture Topic: Skills and Knowledge Required by B.Sc. Agriculture Graduates to Become Globally Competitive Professionals



Dr. Pawan Kumar Singh
Senior Scientist and Head, Wheat Paology, Global Wheat Program, CIMMYT, Mexico

Lecture Topic: Global Status of Wheat Blast



Dr. Digvir S. Jayas
Professor, University of Manitoba, Canada

Lecture Topic: Understanding Global Perspective and Prospects of Food Quality Monitoring



Dr. Shiv Kumar Agarwal
Scientist, ICARDA, Morocco

Lecture Topic: Accelerating Genetic Gains in Legumes



Dr. Nanthi Bolan
Professor, Environmental Chemistry, Global Centre for Environmental Remediation, University of Newcastle, Australia

Lecture Topic: Closing the Nutrient Loop: Phosphorus Management in Protein Farming



Dr. Binoy Sarkar
Lecturer, Lancaster Environment Centre, Lancaster University, United Kingdom

Lecture Topic: Enhanced Mineral Wearing for Climate Change Mitigation and Food Security



Dr. Prashant Srivastava
Senior Research Fellow, CSIRO, University of Adelaide, Australia

Lecture Topic: Challenges of Contaminated Land



Dr. Jata Shankar Nanda
Former Emeritus Scientist, IRRI, Manila, Philippines

Lecture Topic: Rice Breeding: Past, Present and Future Outlook



Dr. Shyam Narayan Labh
Professor, Tribhuvan University, Amrit Campus, Kathmandu, Nepal

Lecture Topic 1: Rainbow Trout Culture in Himalayan Kingdom

Lecture Topic 2: Nutrition and Feed Formulation for Rainbow Trout



Dr. Krishna R. Salin
Associate Professor and Programe Chair, Aquaculture and Aquatic Resource Management, Asian Institute of Technology, Thailand

Lecture Topic 1: Biofloc Technology for Aquaculture: Benefits and Opportunities

Lecture Topic 2: Smart Aquaculture for Enhanced Productivity and Sustainability

Expanding Horizons, Understanding Culture: 3 Days French Fest Organized

The Language Lab Component of IDP-NAHEP, Pantnagar organized a French Fest which included webinars and competitions. The three day fest aimed towards enhancing the insight of the French culture and traditions and was focused towards the thematic understanding of Christmas. *The overall theme of the fest was Christmas in France: Culture and Tradition* and was held from December 22-24, 2020. The entire fest was led by Ms. Annéa Saily, a native of France and professor by profession. On the first day, a webinar was held wherein Ms. Saily explained the students how Christmas is celebrated in her country starting from December 1 every year. She further added that Christmas is an occasion where the family gets together, shares food around a table and

exchanges gifts. She also mentioned the cultural aspect that shows the birth of Lord Jesus. The participants learnt about Saint Nicholas (which is not known to many people) in reference to Santa Claus and also why Santa Claus wears red dress. Different aspects of Christmas such as Christmas Advent Calendar, Christmas Eve, Crèche, Holy Church Mass, Traditional Christmas food and Christmas celebration were the points highlighted by the expert. A Christmas Quiz and a Calligram Making Contest were held on December 23 and December 24, 2020 respectively. Since the Language Lab component has been organizing the French language classes, this fest was an opportunity for all language class learners to connect with the true spirit of French culture and French language.

The Main Events of January 2021

S. No.	Event	Proposed Date	Venue	Nodal Unit	Convener
1.	Two days training on Role of Sensors in Smart Farming	08-01-2021 to 09-01-2021	Online	Agri-Informatics	Dr. A.S. Nain, College of Agriculture
2.	Guest lecture on Breeding for Resistance to Biotic and Abiotic Stresses and Development of Bt-cowpea	15-01-2021	Online	Academic	Dr. S.K. Guru, College of Basic Sciences and Humanities
3.	Two days training on Advances in Remote Sensing and Machine Learning Techniques for Agriculture Applications	18-01-2021 to 19-01-2021	Online	Agri-Informatics	Dr. A.S. Nain, College of Agriculture
4.	Guest Lecture on Sustained Food Security in India: Need for Multi-Institutional Collaboration	22-01-2021	Online	Academic Team	Dr. S.K. Guru, College of Basic Sciences and Humanities
5.	Two days training on Quantitative Analysis of Farming System	25-01-2021 to 26-01-2021	Online	Agri-Informatics	Dr. A.S. Nain, College of Agriculture
6.	A webinar on Startup Ecosystem and its Stakeholders	27-01-2021	Online	Innovation and Incubation Centre	Dr. A.K. Upadhyay, College of Veterinary and Animal Sciences
7.	Online Guest Lecture Series on Prospective Role of Agricultural Engineering in World Market	27-01-2021 to 30-01-2021	Online	Academic	Dr. S.K. Guru, College of Basic Sciences and Humanities



Creating Alignment, Enhancing Opportunities

Dr. S.K. Kashyap

Dean, College of Agriculture/PI, IDP-NAHEP, Pantnagar

The IDP-NAHEP project has provided an avenue to initiate and strengthen networking with academia and industry alike. The project mandates to engage in meaningful collaborations through short term foreign exchange programmes, lectures of foreign experts, industry internships, exposure visits and series of other programmes. The IDP Pantnagar team has made tremendous efforts to continue with these awareness and networking initiatives despite restrictions posed by the pandemic situation. In the past one month alone, experts from foreign universities from USA, UK, Canada, Australia, Thailand, Philippines, Nepal were aligned by faculty members of different departments of the University. An online lecture series is ongoing with these international experts for the University students on a regular basis. Also, alignments with corporate organizations and agri-entrepreneurs are being made to provide online industry internship experience to the students. Altogether, we aim to enhance opportunities for the University students through these academic and industry networks which will ultimately improve the learning outcomes. Moreover, in long run we plan to create a multi-institutional and multi-industry network which will not only support in teaching activities and student exposure but will also reinforce research and extension activities through commercialization and market related support. Overall, these alignments and initiatives will make a marked difference in the performance of the University.

