



IDP-NAHEP Pantnagar Updates

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

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Message of IDP Leader, GBPUAT, Pantnagar Making Pantnagar a Hub of Academic Innovations

An ecosystem of innovation helps an institute to flourish, retain its relevance, and provides an enthusiasm towards life. The IDP-NAHEP project - its dynamic vision and relentless efforts of its team has resulted in the emergence of an innovation-based ecosystem in the University. The students, the faculty members, and the entire Pantnagar fraternity looks towards the initiatives and activities of IDP-NAHEP with immense hope and excitement. Everyone in the University campus appreciates their outlook and the approach with which they have worked till date in improving the academic landscape as well as the infrastructural facilities in the campus. Several of the academic innovations by IDP Pantnagar are showing drastic improvement in the skills and capabilities of the students and the faculty members. For instance, the establishment of the first ever 3D and virtual reality lab has been inspiring for all, and its utility will definitely add to the learning experiences. Similarly, many such IDP initiatives have been encouraging the University fraternity to experiment and engage in different activities for improved teaching-learning outcomes. I hope that IDP Pantnagar team will continue with their efforts and innovative spirit.



(Tej Partap)

National Director NAHEP Dr. R.C. Agrawal and Hon'ble Vice-Chancellor Dr. Tej Partap Inaugurate the State-of-the-Art Virtual and Language Lab

National Coordinator IDP Dr. P. Ramasundaram was also present

The University Centre - NAHEP Building is the nodal point for coordination and execution of all IDP-NAHEP, Pantnagar activities and the two units of this mammoth building, viz. Virtual Lab and Language Lab were recently inaugurated. The National Director NAHEP, Dr. R.C. Agrawal who is also DDG Education, ICAR and Hon'ble Vice-Chancellor, GBPUAT, Pantnagar inaugurated the two labs on February 13, 2021 in the presence of National Coordinator IDP Dr. P. Ramasundaram, PI, IDP-NAHEP, Pantnagar Dr. S.K. Kashyap and Coordinator, Language Lab Dr. Alka Goel. In six decades of the journey of the first agricultural university of the country, it is for the first time that Pantnagar University is entering into such an era of transformation in the teaching-learning system. The Virtual Lab has been created to suffice the university



towards actualization of learning. It will help the students to explore, to discover and get into immersive content with deeper understanding. While,

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Padma Shree Awardee Dr. Anil Gupta Interacted with Young Minds of Pantnagar University

An interactive session was held at NAHEP building with Padma Shree Dr. Anil Gupta on March 15, 2021. Talking on the occasion, Dr. Tej Partap, Vice Chancellor, GBPUAT, Pantnagar stated that listening to the words of stalwarts like Dr. Gupta who have dedicated their life for promotion and application of scientific knowledge is bliss in itself, and being students of agriculture and allied sciences, we can generate very useful insights from such interactions for our future course of action. Dr. S.K. Kashyap, PI, IDP-NAHEP, Pantnagar welcomed the guest and briefed him about the IDP-NAHEP project and how it is working in the University for providing a platform to nurture students, incubate their ideas and help them sharpen their entrepreneurial acumen. Dr. Gupta, who has served as an eminent academican at IIM Ahmedabad, has worked extensively for promotion of grassroot innovations. Addressing the students, Dr. Gupta said that we need to broaden our outlook while we are focusing on finding the solutions of the problems existing in the society, as practical solutions to many of the problems are already existing. He added that research innovation and problem oriented innovations and inventions must be at the prime focus of young minds. Dr. Gupta emphasized that being into agriculture, we need to introspect on how can we solve



the problems of the farming community by application of scientific knowledge and skill sets. He explained that we need to enlist the problems which are emanating from change in lifestyle as well as living pattern and accordingly work upon the solutions using our traditional knowledge system. He advised the students to be inquisitive in learning science rather than technology. By the end of his deliberation, Dr. Gupta also answered the queries of the students, which were related to agricultural technologies. Dr. K.P. Raverkar, Dean, Post-Graduate Studies, Dr. Omvati Verma, Senior Research Officer, Agronomy, and Dr. Manisha Rani, Assistant Professor, Soil Science, were also present in the session.

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the Language Lab will help the students to hone their language skills including foreign languages such as English, French and German in an effective way. It will provide language practice in an entertaining and interactive way to acquire competency in listening, speaking, reading, and writing.

On this occasion, Hon'ble Vice Chancellor stated that these facilities will help in making agriculture education smart and thus the students will get an opportunity to explore different dimensions of agriculture. Dr. Agrawal also praised the efforts of the University in continuously working towards the improvement and innovativeness in agriculture education. He also said that such initiatives will promote other agricultural universities to inculcate innovative aspects in their academic framework. Even Dr. Ramasundaram appreciated the efforts of IDP Pantnagar team in diligently engaging in bringing new



ideas in education setup of Pantnagar. Further, Dr. Kashyap added that these labs, dedicated to enhancing the learning experiences and competencies of students, will increase the speed of learning and will inspire youth towards looking at agriculture in a different way.

30 Days Online Remedial Crash Course Initiated for Agriculture Graduates

In order to aid the undergraduate students of the University for a good performance in ICAR-JRF, SRF and other entrance as well as competitive examinations the IDP-NAHEP project initiated a quick online revision capsule by the name of 30-Days Remedial Crash Course of Agriculture. Under the crash course a total of six modules viz., Genetics and Plant Breeding, Plant Pathology, Entomology, Horticulture and Vegetable Science, Agronomy and Soil Science, and Extension, Economics and Statistics will be running simultaneously for a total of 30 days via online mode. A total of 13 mentors will take different modules of the crash course with targeted focus on giving competitive edge to the students. The mentors are both faculty members as well as Ph.D. Scholars from renowned agricultural universities of the country including BCKV, Kalyani, RPCAU, Bihar, ICAR-IARI and PAU, Ludhiana. This unique initiative of IDP-NAHEP, Pantnagar has been heartily appreciated by University



students and University alumni alike. The University alumni who are undertaking these remedial classes for the current students reflected that this structured proposition and different approach towards remedial classes not only provided them an opportunity to connect with their Alma mater but also gave them an insight on how academic innovations can become a part of regular curriculum.

Spoken English Remedial Classes Begin at Pantnagar

Under the Language Lab Component of IDP-NAHEP, Pantnagar, offline English Remedial Class started from February 20, 2021. The class specifically targets towards students who need to practice English communication skills. The course also focuses on helping the students in accelerating their knowledge and understanding of English. Activities like role play, one to one conversation, group discussion etc. are practiced by the students to enhance their language skills. The classes run on alternative days in the evening after the regular academic classes. Senior University scholars and alumni are facilitating these remedial classes and guiding the class of fifty registered undergraduate students. Mr. Prajwal Singh, M.Tech. Manufacturing Engineering and Management, GBPUAT, Pantnagar; Ms. Divya Goswami, M.Sc. Mathematics, Kumaon University; Ms. Shefali Srivastava, Ph.D. Agricultural Economics, GBPUAT, Pantnagar; and Ms. Sheeba Belwal, Ph.D. Horticulture, GBPUAT, Pantnagar are the facilitators. The Language Lab component of IDP-NAHEP has been one of the most lively and admired component with regular language classes and events for University students. Till date more than 600 undergraduate students have been the beneficiaries of foreign language classes.





FDC Pantnagar Organized a Three Days Online Training Programme

The Faculty Development Centre, Pantnagar organized a three-days online training from February 25-27, 2021 on the topic Mastering the Techniques of Effective Online Teaching. Dr. Sanjay Kumar Sharma, Professor, Livestock Production Management, College of Veterinary and Animal Sciences, Pantnagar and Coordinator of the training stated that the training has been scheduled after understanding the importance of teaching learning effectiveness in the present time. The training programme was handled by Dr. Naresh Rakha, Senior Scientific Officer, IIT-Ropar, Dr. Kalaiselvi, J., Assistant Professor, Department of Electrical Engineering, IIT-Ropar and Dr. Khushboo Rakha, Assistant Professor, Department of Metallurgical and Materials Engineering, IIT-Ropar. On day one, Dr. Rakha oriented the faculty members about the role of teacher as a guide. He stated that the concept of empathy and its application in teaching is very essential to be understood by teachers to establish himself/herself as a life changing guide and mentor. Dr. Kalaiselvi, J. also deliberated on the first day of training. During the session, she talked especially about teaching and learning process in the online mode. She stated that in order to facilitate one-to-one interaction in online system, a teacher must be acquainted with the components of teaching-learning, factors influencing the online teaching-learning systems, challenges and



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opportunities being offered by online teaching means and methods. On the second day of the training, Dr. Khushboo Rakha led the session centered on methods of evaluation in online teaching. She stated that the pandemic have offered us wide opportunities to experiment and innovate on the evaluation and assessment methods. She demonstrated the use of Google Forms and Kahoot Application for conducting evaluation in the online teaching. Dr. Khushboo also deliberated upon the techniques of conducting evaluation in online mode by ensuring transparency and curtailing unfair as well as unhealthy practices on the part of the students. On the third day of training, Dr. Naresh Rakha gave his presentation on the aspects of non-verbal communication in online teaching. He briefed the participants on components, importance, use and applications of non-verbal communication for creating effective teaching learning ecosystem for the online learners. The three days training programme was an extremely insightful experience for all the participating faculty members.

Two New 3 Months Online Certificate Courses Launched

The novel initiative of IDP-NAHEP, Pantnagar of starting the first ever online certificate courses of Pantnagar University went ahead in its journey with the launch of two new courses. The newly launched courses are Interior Design and Decoration by Department of Family Resource Management, College of Home Science, and Livelihood Security through Integrated Farming Systems by Department of Agronomy, College of Agriculture. The launch programme was held on February 25, 2021 in the presence of Dr. S.K. Kashyap, PI, IDP-NAHEP, Dr. Alka Goel, Dean, College of Home Science, the faculty members incharge of the certificate courses, the registered students and the IDP Pantnagar team. It is encouraging to see people from different walks of life join these online certificate courses, said Dr. Kashyap during the launch programme. He further added that

Pantnagar University is home to learned scientists and scholars and these certificate programmes are an avenue to share the intellectual wealth of Pantnagar with the entire world. Dr. Goel also remarked that these certificate courses are providing not only a learning opportunity to all interested learners from different domains without any boundaries of formal eligibility criteria but are also an opportunity for the faculty members to connect and fulfill the learning demands of many people. She even appreciated the hard work of all the faculty members who are taking extra pain to design and deliver these certificate courses. These newly launched certificate courses will involve weekly lecture content along with live webinars, expert sessions for the registered participants and weekly evaluations along with interesting and informative reading material.

Two Days Training Held on Crop Health Monitoring

The Agri-Informatics component of IDP-NAHEP organized a two days online training on February 1-2, 2021. In the series of events organized to generate awareness and skill the students of Pantnagar on emerging aspects of artificial intelligence and related technologies, this training was another important one. The two days training on the topic *Crop Health Monitoring using Geospatial Technology* was held under the guidance of Dr. Anoop Kumar Shukla, a young scientist who earned his doctorate from the prestigious Indian Institute of Technology Roorkee and is currently serving as an assistant professor at Manipal School of Architecture and Planning, Manipal.

The training began with an introduction to basics of remote sensing and thereby explained the need of remote sensing and geographic information system. Dr. Shukla also described the importance of crop health monitoring and how geospatial technologies can support in providing high end data related to crop health. He then discussed about the latest technologies, data requirements, role of satellites and remote sensing indices for crop health monitoring. The second day of the training was a complete hands on experience for the participants. Dr. Shukla did a practice session using the QGIS software application which is a free and open-source cross-



platform desktop geographic information system application that supports viewing, editing, and analysis of geospatial data. He took some sample crop data and made the participants analyze that data using QGIS and determine the crop health parameters.

The two days training programme received an enthusiastic response from all the participants. As closing remarks, Dr. A.S. Nain, Coordinator Agri-Informatics component said that utilization and necessity of geospatial technology is gradually enhancing and such technologies are essential to provide timely, cost effective and precise information about the crop and thus helpful in increasing crop production. He applauded the expert for providing such an engrossing learning experience to the students.

Hello Entrepreneurs, No Idea! Get an Idea: Webinar Organized on Startup Idea Validation

The Innovation and Incubation Centre of IDP-NAHEP, Pantnagar organized a webinar on *Startup Idea Validation* in association with Headstart Network Foundation on February 20, 2021. Dr. A. K. Upadhyay, Coordinator of Innovation and Incubation Centre addressed the attendees and showered his blessings. He told innovation is important for the advancement of society and participants should learn about how to implement innovation tips and tricks into their projects. The webinar was led by Mr. Ujjwal Trivedi, Assistant Director, MoveInSync, Bangalore. The guest spoke about the thought process required to hunt an entrepreneurial idea. He talked about how any idea should revolve around the needs of the end consumer and how it's utility should solve the immediate or prospective problems of the consumer. Mr. Trivedi further elaborated on the aspect of idea validation, techniques of idea validation including



Fake Door Testing, Storyboard Testing and Concierge Most Valuable Player, and steps to build on the idea post validation. The webinar concluded with an intensive question answer round where the curious students put forth their queries pertaining to startup challenges, startup ecosystem, and startup prospects. Dr. Amit Kesarwani, Assistant Professor, Agronomy and Faculty Member, IDP-NAHEP, Pantnagar gave the closing remarks and said that an innovative idea often solves an existing problem in a cheaper or in efficient way and as stakeholders of an agricultural institute we must make efforts to provide efficient solutions for agricultural problems. The webinar received an extremely enthusiastic response and a total of 80 participants were part of the event. It was an erudite session for the budding entrepreneurs of the University and students were intrigued by the discussion.



IDP Pantnagar Continues with International Lecture Series

7 Experts from 3 Countries Nurture Pantnagar Students



Dr. Krishna Vadrevu

Remote Sensing Scientist, NASA Marshall Space Flight Center, Huntsville, Alabama and Adjunct Associate Professor at the University of Maryland College Park, USA

Lecture Topic: Emerging Multi satellite Dataset Techniques in Farming World

Prof. Ing. Josef Soukup

Professor and Head, Department of Agroecology and Crop Production, Faculty of Agrobiological Sciences, University of South Bohemia, Czech University of Life Sciences, Prague

Lecture Topic: Herbicide-resistant weeds and their management



Dr. Digvir S. Jayas

Vice-President (Research & International), Distinguished Professor, University of Manitoba, Canada

Lecture Topic: Bio-imaging for agri-food industry

Dr. Vijay Singh

Distinguished Professor, Agricultural & Biosystems Engineering, University of Illinois, Urbana Champaign, USA

Lecture Topic: Role of Food & Bioprocessing Engineering to Meet Demands for Food, Fuel and Industrial Products in 21st Century



Dr. Rakesh Singh

Professor, Food Science & Technology, University of Georgia, USA

Lecture Topic: Aseptic Processing and Packaging

Dr. Suat Irmak

Distinguished Professor, Department of Biological Systems Engineering, University of Nebraska Lincoln, USA

Lecture Topic: Agricultural Engineering Profession and Applications in Practice



Dr. Neelendra Joshi

Professor, Entomology, University of Arkansas, USA

Lecture Topic: International Opportunities for Professional Development in Entomology and Precision Integrated Pest Management



The Main Events of March 2021

| S. No. | Event | Proposed Date | Venue | Nodal Unit | Convener |
|--------|--|--------------------------|------------------------------------|---------------------------------|---|
| 1. | 5 Days Online Training on Enhancing Teaching and Student Engagement Through Effective Personal Development and Use of OER, AI and ML | 02-03-2021 to 06-03-2021 | Online | Faculty Development Centre Team | Dr. S.K. Guru, College of Basic Sciences and Humanities |
| 2. | 30 Days Online Coaching and Training for Python Programming Language | 06-03-2021 Onwards | Online | Academic Team | Dr. S.K. Guru, College of Basic Sciences and Humanities |
| 3. | Interactive Session on Effective NCP for Better Patient Compliance in Hospital Setup | 06-03-2021 | Online | Academic Team | Dr. S.K. Guru, College of Basic Sciences and Humanities |
| 4. | International Summit on Agri Innovations in 21st Century and the Ways Ahead | 09-03-2021 to 10-03-2021 | Online | Project Team | Dr. S.K. Kashyap, College of Agriculture |
| 5. | 30 Hour Online Remedial Crash Course of Fisheries for Aspirants of JRF and Other Competitions | 15-03-2021 Onwards | Online | Academic Team | Dr. S.K. Guru, College of Basic Sciences and Humanities |
| 6. | 30 Hour Online Remedial Crash Course of Veterinary and Animal Sciences for Aspirants of JRF and Other Competitions | 15-03-2021 Onwards | Online | Academic Team | Dr. S.K. Guru, College of Basic Sciences and Humanities |
| 7. | 7 Days Workshop on Gaining Impetus with Grooming Inherent Talent | 18-03-2021 | University Centre - NAHEP Building | Academic Team | Dr. S.K. Guru, College of Basic Sciences and Humanities |
| 8. | Wall Painting Competition on Moods and Cultures of India | 21-03-2021 | University Centre - NAHEP Building | Academic Team | Dr. S.K. Guru, College of Basic Sciences and Humanities |
| 9. | Online Training on Journey to a Healthier You: Enrich Yourself | 23-03-2021 to 27-03-2021 | Online | Academic Team | Dr. S.K. Guru, College of Basic Sciences and Humanities |
| 10. | Webinar on Digital Transformation of Indian Agriculture System | 24-03-2021 | Online | Agri-Informatics Team | Dr. A.S. Nain, College of Agriculture |



Making a Move Towards Blended Learning

Dr. S.K. Kashyap

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

The University is gradually making a move towards blended mode of learning. The students are getting back to campus and academic activities are resuming in offline mode, alongside the digital pedagogical interventions by the faculty members. The IDP-NAHEP student activities have also begun in this dual mode. This new blended mode is generating a new, refreshing aura of teaching and learning in the University. The IDP Pantnagar team is considering this new dual mode as an opportunity to organize varied kinds of events, which will enhance the learning options as well as the growth opportunities for the students. The language classes, the skill development workshops, the industry visits, the entrepreneurship sessions, the innovation and creativity contests, and many such events have already started unfolding in the University campus. While foreign expert trainings, interactive sessions with industry experts, and trainings and workshops of few other components are continuing online. The return of the students has indeed brought back life to the campus and IDP Pantnagar intends to utilize this comeback in the best possible way. In coming times, the blended mode of learning will help Pantnagar strengthen its collaborations with the industry and foreign academic institutes, thus providing students a wholesome experience and exposure.

