



IDP-NAHEP Pantnagar Updates

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

No. 24
September 2021

Message of IDP Leader, GBPUAT, Pantnagar

It is Time to Make Agricultural Education Sustainable

The concept of sustainability is gradually emerging across economies, across sectors, and across cultures. Taking this concept ahead into the domain of education, especially agricultural education, it is high time that not only our agricultural practices become sustainable but also agricultural education becomes sustainable. Of different offshoots of sustainability, financial sustainability is one of the most critical factors. The NAHEP project has proved itself to be an instrumental intervention in this context. It has provided an opportunity to agricultural universities of India to generate infrastructure and generate skilled human resources to ultimately carve out the path towards financial sustainability and independence. The IDP-NAHEP, Pantnagar is also seriously working in this direction and few initiatives have already become operational which will undoubtedly lead the University towards financial strength and sustainability. I hope such initiatives and actions are taken throughout all agricultural universities of the country so that agricultural education overall emerges as financially sustained.




(Tej Partap)

Five Days Online Training Conducted on Applications of Computer Aided Design in Agriculture

The Agri-Informatics Component of IDP-NAHEP, Pantnagar, organized a five days online training programme on *Applications of Computer Aided Design (CAD) in Automation of Agriculture* from August 27-31, 2021. The expert of the training was Mr. Dayanand Sharma, Senior Technical Designer, Club First Robotics Pvt. Ltd., Jaipur, Rajasthan. Mr. Sharma has an expertise into creating agri-applications related to different farm operations as well as other activities of agriculture value chain. The training was specifically meant for undergraduate students and faculty members of Pantnagar University. The training programme had the presence of Dr. S.K. Kashyap, PI, IDP-NAHEP, Pantnagar. He encouraged all the participants to develop an interest as to how automation can help enhance agricultural productivity and other outcomes. Dr. A.S. Nain, Coordinator, Agri-Informatics Component, IDP-NAHEP, Pantnagar was also present in the inaugural session of the training programme.



Mr. Sharma interacted with the participants and elaborated how CAD programmes allow the designer to draw the objects on a computer screen, instead of using pencil and paper. It uses the computer systems to assist in the creation, modification, analysis and optimization of a design. The expert also dealt with AutoCAD software in the sessions in which he described different aspects of AutoCAD. AutoCAD is the Computer Aided Designing and Drafting software, which is used to create the 2D and 3D design and layout

(continued on page 2)



Students Explored the Possibilities of Big Data and Agriculture: 2 Days Online Training Held

A two-days online training programme was held from August 9-10, 2021 on *Big Data and the Future of Agriculture*. The Agri-Informatics Component of IDP-NAHEP, Pantnagar, took the lead in organizing the training programme. The training intended to aware and give insights to students that how big data can help in making decision making smart. The expert of the training was Dr. M. Balakrishnan, Principal Scientist, ICAR-NAARM, Hyderabad. Dr. S.K. Kashyap, PI, IDP-NAHEP Pantnagar addressed the participants and shared overview of NAHEP activities and its impact on participants, especially those who are regularly attending the events. Dr. A.S. Nain, Coordinator, Agri-Informatics Component, IDP-NAHEP, Pantnagar said that being an agriculturist, it is important to know the new technologies and trends that are emerging into the field to improve predicament situations associated with farming community.



The expert, Dr. Balakrishnan taught about principles of artificial intelligence and its impact on farming community. He explained how AI provides more efficient ways to produce, harvest and sell essential crops. Implementation of artificial intelligence techniques help in checking defective crops and improving the potential for healthy crop production. AI is being used in applications such as automated machine adjustments for weather forecasting and disease identification. He also added that AI solutions have the potential to solve the challenges faced by farmers such as climate variation, infestation of pests and weeds that reduce yields, etc. He further told that Big Data generates value from the storage and processing of very large quantities of digital information.



Dr. M. Balakrishnan
Principal Scientist
(Computer Applications in Agriculture)
ICAR-NAARM, Hyderabad

Dr. Balakrishnan also explained that the use of big data is helpful in revolutionizing agricultural practices and helps in providing new opportunities to help farmers in battling food crisis. The practical applications of big data in agriculture are meeting the food demand; pesticides use optimization, farm equipment management, supply chain management, yield prediction and food safety. Dr. Rajeev Ranjan, Project Scientist, Agri-Informatics Component coordinated the training programme.

(continued from page 1)

of the specific objects with the correct dimensions. Agricultural machinery such as tractors, combines and forage harvesters are designed to work with a range of granular materials such as crops, seeds and soils. Agricultural engineers create mechanical designs and equipment specifically for the agricultural, farming and food industries. AutoCAD allows drawing and editing of digital 2D and 3D designs more quickly. This software is beneficial for agriculturist to draw and design farm machinery equipments by taking actual measurements. He also added that a practical use of AutoCAD adds new dimension in designing field of irrigation system equipments. The five days training

programme emerged with a new learning about designing software and participants got an insight on how this void of farming alternatives has inspired many to initiate agri-ventures. A total of 60 participants were there in the training programme. Dr. R.S. Rajput and Dr. Rajeev Ranjan, Project Scientists of Agri-Informatics Component coordinated the training programme.



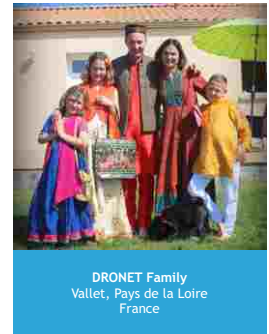
Mr. Dayanand Sharma
Senior Technical Designer
Club First Robotics Pvt. Ltd.
Jaipur, Rajasthan



Interactive Webinar Organized with a French Family Under Language Lab Component

The Language Lab Component of IDP-NAHEP, Pantnagar organized an online interactive session on the topic entitled *France through the eyes of a French Family* on August 4, 2021. The expert of the webinar was DRONET family who resides in Vallet, north-west city of France. The family members who interacted with University students who are enrolled in French Language Classes included Mrs. DRONET, 38, along with her two daughters Carla, 14 and Fanny, 12 years old respectively. The session began with the French family introducing themselves in French language followed by University students doing the same. Then, the family asked the students some basic questions according to the different level i.e. A1 (Beginners), A2 (Elementary) and B1 (Pre-Intermediate). For A1 level students, it was a challenging task as it has been only 10 days that they have started learning French but they managed very well in answering the questions. As for A2 level students, who have already completed A1 level, it was not that difficult but it was not that easy either as the questions were in the native accent. For B1 level students, who have been studying French since last six

months, it was a pleasure to listen to the native accent, as they understood almost all the words said by the family. The interaction continued with several questions on topics such as language, culture, society and civilization. The DRONET family was pleased to see the students learning French language with such great enthusiasm and motivation. It was a pleasure for them as it was for the first time that the family interacted with any Indian student group. In the past, the family had interacted only with a German student who spoke little French. Thus, interacting with thirty Indian students in their native language was a wonderful moment for them. At the end, they wished the students all the best for their future career and felicitated them for their efforts in learning French language. The family does not speak much English and the students' French language knowledge made the session very smooth and interactive with lots of learning.



DRONET Family
Vallet, Pays de la Loire
France

Zooming through Creative Writing: Writing Skills Workshop organised for UG Students

The IDP-NAHEP, Pantnagar is continuously making efforts for enhancing the writing skills of UG students by organising the IDP-NAHEP Writing Studio which started from the month of April, 2021. Continuing the trail, the fifth workshop of the Writing Studio was held in online mode from August 25-29, 2021 and was entitled as *Creative Writing Skills*. The expert of the five-day workshop was Dr. Shweta Gupta, alumnus of Pantnagar University, Fellow, IIM Indore, and Director, Arohana Management Solutions, Dehradun. Dr. S.K. Kashyap, Dean, College of Agriculture and PI, IDP-NAHEP, Pantnagar initiated by saying that the academic mission of the workshop in creative writing is to develop writing skills in a variety of modes among students, also developing their abilities in critical thinking and creative problem solving. He also stated that the workshop will help students in developing creative thoughts, using imaginations, suggest alternatives, broaden thought process and problem-solving abilities. During the five

days workshop, the expert explained that the concept of creative writing, focused on the creative writing process, the basic techniques and terminology of poetry writing, story writing, aesthetic writing, creative non-fiction writing, critical reading skills for critiquing fiction, essays, and poetry. Dr. Shweta also stated many benefits of creative writing like it helps in developing imagination and creativity, self-expression, self-confidence, communication, and persuasion skills. Creative writing also helps in improving intellectual skills. Daily assignments to the participants were given and were critically evaluated with focus on areas of improvement. The participants gave very positive feedback of their learning from the workshop. A total of 62 participants actively participated in the workshop. In the valedictory session of the workshop, Dr. S.K. Guru, Nodal Officer, (Academic), IDP-NAHEP, Pantnagar said that the writing skills can be used as a way of demonstrating the creative side of an individual in his/her career.



Workshop Held on User Centric Design Process in Entrepreneurship

A one day workshop on *User Centric Design Process* was conducted on August 25, 2021 by the Innovation and Incubation Centre of IDP-NAHEP, Pantnagar. Mr. Vasishta Chary, Founder and Consultant of ThyBook Box and Ascian Solutions Startups was the expert of the session. Dr. Aman Kamboj, Session Coordinator, Innovation and Incubation Centre welcomed the participants and introduced the expert of the session. He explained the vision of IDP-NAHEP, Pantnagar behind organizing such online workshops and also brought the work done by the speaker of the event into limelight. Mr. Vasishta Chary started the session by disclosing his inclination towards designing techniques. He divided the workshop into two parts for better understanding i.e. concept defining and description of basic terms and the process explanation through a case study. In the first part he started with the definition of User Centric Design as the “amalgamation of people, business and technology” and mentioned it as an iterative process. He also tried to simplify the process by taking aid of different examples of which participants were aware of. He elaborated five basic processes of Design Thinking viz., Empathize, Define, Ideate, Prototype and Test. The expert also entertained the doubts of participants very

enthusiastically in between the workshop. He marked a clear-cut difference between business problem and human problem and guided the students that an important step to prioritize problems is to formulate the importance and time combination for given



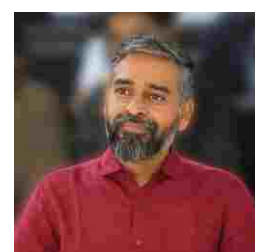
Mr. Vasishta Chary
Founder & Consultant
Thybookbox & Ascian
Solution Startups

problems. After the explanation of entire process, students were able to understand the cycle of discovery, concepting, prototyping and user testing. The case study that he explained in the next part was about Postpartum Depression indicating the status, symptoms and treatment component keeping in reference of the user centric designing for given problem. He also tried to cover the aspects of empathy mapping, preparation of ideal consumer profile, and logo designing process. Towards the end sometime was given to participants for clearing their doubts and it turned out to be very interactive and informative session for them. The workshop ended with a vote of thanks for the speaker as well as to the participants for completing the one-day online workshop successfully.

Learning by Seeing: Virtual Tour of Green and Grain Agri-Startup Held

A virtual tour entitled *Challenges and their Innovative Solutions in Farm to Fork Operations* was organized on August 31, 2021. Mr. Prateek Sharma, Director, Green and Grain Startup was the expert of the session. The one-day virtual tour started with an introductory note from Dr. A.K. Upadhyay, Coordinator, Innovation and Incubation Centre of IDP-NAHEP, Pantnagar. He narrated the journey and passion of expert, Mr. Prateek Sharma and appreciated the gusto of participants who showed their interests and joined the session. Mr. Prateek Sharma took the session ahead by sharing his journey of being a farmer's son to banker then to an entrepreneur and farmer again. He shared that how he overcame the state of mid-life crisis and aligned himself in direction of entrepreneurship. In order to devise the core sector in which he could work upon, he thought of the formula - “Bigger the Problem, Bigger the Opportunity” and the major problem he thought of was to find some

solutions to the plight of farmers. The core problems that he initially came up with were, high production cost, chemical residues in crops, and actual price realization. The answer to first two problems was to grow products organically which cuts down the cost by using local inputs



Mr. Prateek Sharma
Director
Green and Grain Startup

while keeping the produce free from chemicals. The answer to third problem was in “Farm to Fork” from which he could provide better price realization at customers end. He started a venture where he could be able to meet solutions to all three problems with a group of 12 farmers which got incubated by INVENT social incubation programme of IIM Calcutta Innovation Park (IIMCIP). He put a torch on the main

(continued on page 5)

Unveiling Technologies: Webinar Organised for Understanding Newer Technologies for Better Career Growth

Technology is one of the key elements for mankind's survival in a fast-paced world. Technology brings skills, knowledge, process, techniques, and tools together for solving problems of human beings, making their life secure and easier. The positive impact of technology on society has brought a wonderful change and helped human beings to reach new heights that have never been conceived of. Realising the need of getting aware about the emerging innovative technologies, a two-hour webinar on *Understanding Newer Technologies for Better Career Growth* was held on August 19, 2021. The expert of the session was Mr. Bohitesh Misra, Co-Founder, Decision Tree Endeavour and Data Analytics enthusiast. Initiating the webinar, Dr. S.K. Guru, Nodal Officer (Academic), IDP-NAHEP, Pantnagar formally welcomed the expert of the session and briefed the participants about the multiple events organised by



IDP-NAHEP for undergraduate students' skill and knowledge development. Stating the importance of technology in everyday life, he opined that it is an essential tool that cannot be avoided, it plays an important role in the lives of humans. During the session the expert made participants aware about some of the disruptive technologies significantly influencing the future like artificial intelligence, virtual augmented reality, internet of things, block chain technology, and e-commerce. He discussed about concept and types of disruptive technologies, smart workspaces, smart homes, 3D-4D printing, machine learning concepts and fugitive innovations. Mr. Misra stated that the innovative technologies have the potential to truly reshape the world in which we live and work. The relentless parade of new technologies is unfolding on many fronts. These technologies could drive truly massive economic transformations and disruptions in the coming years. It is therefore critical that we understand which technologies will matter and prepare accordingly. A question-answer session was held towards the end of the webinar post which the webinar concluded successfully.



Mr. Bohitesh Misra
Co-Founder & Data Analytics enthusiast
at Decisiontree Endeavour

(continued from page 4)

constraints related with organic production viz., lack of availability of working POPs and SOPs for organic farming and inconsistent supply of products, i.e., demands and supply sites are not working in tandem. He then acquainted the participants with three key words for solution, i.e. manage quantity, manage variety and continuity and suggested a five-step cycle for ensuring these aspects. Those steps are, production planning, standardizing production, leading hands to farmers, market support and better farm price. He also added that it's only win (farmers)-win (aggregator)-win(consumer) model that can help attaining sustainability in market as against loose-win-loose approach adopted by most of the aggregators.

Mr. Sharma added that entire organizational model which they adopt to provide Farm to Kitchen service and information related to store on wheel and local kiosk helps in getting the attention of local consumers. Summing up the session he talked about the impact which his company has created to the society in past few years and encouraged participants to grow up their ideas which can give relief to large section of society. He was very delighted to interact with young minds. Feedback of students were very satisfactory and they were looking for more such virtual tours. The session culminated with vote of thanks by Dr. A.K. Upadhyay to the expert and all those participants who were actively involved in the entire session.



IDP-NAHEP Continues to Inspire and Nurture Young Minds: Webinar Organised on Honing Competencies for Success in Life

The dramatic changes in this competitive world compel students to stay updated and upgrade their skills as per the need of hour and it creates an immense pressure on them. In order to sensitize students about the imperative competencies and strategies to hone them, a two-hour webinar on *Honing Competencies for Success in Life* was organised by IDP-NAHEP, Pantnagar on August 3, 2021. The expert of the session was Dr. R.L. Raina, Vice-Chancellor, JK Lakshmi Pat University, Jaipur, and Former Dean, IIM Lucknow. Dr. S.K. Guru, Nodal Officer (Academic), IDP-NAHEP, Pantnagar stated the importance of the webinar and pointed out that students will have many new responsibilities over the course of their lives, with connected pressures and the need for adaptability. Therefore, such type of sensitizing events become utmost important for them. Dr. Raina stated that to cope with the increasing speed and change of modern

life, students need new skills such as problem-solving skills, communication skills, organisational skills, confidence, planning, out of box thinking etc. These skills will help them not only in college but also in creating a lucrative professional career. The participants were sensitised about the essential competencies for being successful and how can they build them. Participants were also engaged in process of critical thinking through exercises and activities. The expert also pointed out that the present generation students are exposed to huge information that mostly comes from the online sources and is very evident that there is an immense need to learn the evaluation of the content they study and hear around them and identify false information beyond superficial data provided. A total of 67 participants were present in the webinar and got benefitted from it with positive feedback for the webinar.

Online Workshop Held on Developing Success Habits

Harnessing the power of habits is a great way to pursue success. Committing to habits allows freeing up the brain capacity to make better decisions and keep us on track even when things are difficult. The IDP-NAHEP, Pantnagar thus invited an eminent trainer, Mr. Vikramaditya Duggal, Chief Energising Officer, Abhivyakti - The Expression, Lingampally, Hyderabad for illuminating the undergraduate students of the University about the importance of cultivating good quality habits. He conducted an online workshop for two-hours on the topic *Developing Success Habits* on August 12, 2021. The workshop was in participative mode. Participants were also engaged in process of critical thinking through exercises and activities. Dr. Aman Kamboj, Project Scientist (Academic), IDP-NAHEP, Pantnagar initiated the programme by formally welcoming the expert. He also said that “The change isn’t easy, but it’s worth it. Any new habit takes time, commitment, and hard work to develop. However, once something is done consistently, it becomes easier to integrate it into the daily life.” In the workshop, the expert comprehensively deliberated upon the important habits of being successful and how to develop the habit of consistently inculcating them into the daily regime.



He suggested various habits like setting clear and specific goals, ensuring discipline, creating pattern of consistency, tracking own progress, developing new skills to support your goals, changing one habit at a time to ensure consistency, organization, relaxing, taking action, positive attitude, networking with good people and taking care of own health. He pointed out that success is not served in plate it must be grabbed through hard work and smart work. During the workshop Dr. S.K. Guru, Nodal Officer (Academic), IDP-NAHEP, Pantnagar stated that habit is something we do regularly without consciously thinking much about it. Therefore, it becomes imperative especially for students to develop good habits which will lead to success in both personal and professional life.



Digital Postcard Writing in Foreign Languages: Learning Networking and Enhancing Collaboration

Nowadays postcard writing is not that common with the introduction of social networking platforms such as Messenger, WhatsApp, Gmail etc. where people can send and receive real time messages in one click. Even though postcard writing is outdated in 21st century, sending postcards to friends, family, or loved ones during travel is still very common among French people to show their love and affection. July and August are summer vacation period in France and people rush towards beaches and summer resorts to enjoy sun. On August 13, 2021, B1 level students who

are learning French language under the Language Lab Component of IDP-NAHEP wrote digital postcards to some French families in French language. Postcard writing activity wasn't possible in paperback due to the COVID-19 across the globe. However, French families were pleased to receive the postcards from G.B. Pant University of Agriculture and Technology, Pantnagar students. They too replied back to the students through digital mode and promised them to send a real postcard as soon as the COVID-19 situation gets over. It was a culturally rejuvenating event.

The Main Events of September 2021

S. No.	Event	Proposed Date	Venue	Nodal Unit	Convener
1.	Online 5-Days Crash Course on Community Sciences for Aspirants of JRF	01-09-2021 to 05-09-2021	Online	Academic Team	Dr. S.K. Guru, College of Basic Sciences and Humanities
2.	Online Webinar on Fascinating World of Biological Nano machines: Understanding Fundamentals of Life through Macromolecular Structures	02-09-2021	Online	Academic Team	Dr. S.K. Guru, College of Basic Sciences and Humanities
3.	Online German Language Course (A1 Level)	06-09-2021 Onwards	Online	Language Lab Team	Dr. Alka Goel, College of Home Science
4.	Online German Language Course (A2 Level)	06-09-2021 Onwards	Online	Language Lab Team	Dr. Alka Goel, College of Home Science
5.	5 Days Online Training on Applications of 3D Modelling in Automation of Agriculture	08-09-2021 to 14-09-2021	Online	Agri-Informatics Team	Dr. A.S. Nain, College of Agriculture
6.	2 Days International Webinar on Role of Digital Soil Management Practices in Smart Farming	20-09-2021 to 21-09-2021	Online	Agri-Informatics Team	Dr. A.S. Nain, College of Agriculture



Encouraging Need Based Skill Development

Dr. S.K. Kashyap

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

The IDP-NAHEP project at Pantnagar helped the University to generate much required, need-based systems and structures. The vision, commitment and efficiency of IDP-NAHEP, Pantnagar team further led to the utilization of these need-based systems and structures for aggressive skill development of students and faculty members of the University. For instance, the 54 digital classrooms across into the University campus have revolutionised the teaching-learning ecosystem of the University alongwith skilling the faculty members and students in context of need-based move towards digital education. Similarly, the hi-tech, precision-based hydroponic and aeroponic business units established by IDP-NAHEP, is providing year long skilling training to students, thus making them ready for initiating their ventures in need-based areas of precision farming. Likewise, all activities and initiatives of IDP-NAHEP, Pantnagar have tried to address the challenges of the University and have provided need-based solutions for the same, and will continue to do so in much more vigorous way.

