

# UIT NEWSLETTER



## **A Quarterly Publication By**

University Institute of Technology

H. P. University Shimla-171005

A NAAC Accredited "A" Grade University

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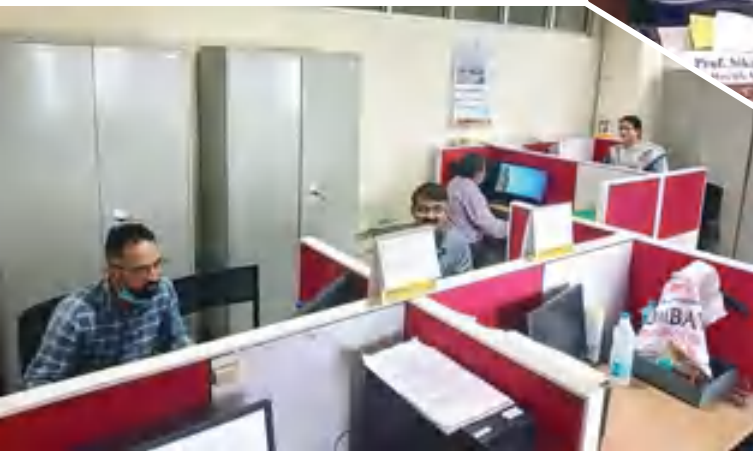
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# U I T C A M P U S

## “EYES OF KNOWLEDGE SEETH”

University Institute of Technology (UIT) is located on the campus of Himachal Pradesh University at Summer Hill, Shimla. This institute started functioning on 11th September, 2000 through the orders of the Executive Council of Himachal Pradesh University after approval from All India Council for Technical Education (AICTE). Initially, it was started with a batch of 60 students for B. Tech. (Information Technology) whereas B. Tech. (Computer Science Engineering) had also been introduced in 2013 with an intake of 60 seats. With the keen efforts of Hon'ble Vice Chancellor Prof. Sikander Kumar, UIT has added three new B. Tech. course branches from the academic session 2019-2020 namely- Electronics and Communication Engineering (ECE), Civil Engineering (CE) and Electrical Engineering (EE), with an intake of 60 each. Now UIT is a well-known Institute throughout not only in India but abroad also, for its quality product. UIT is a leading self-financed government institute of North India. It offers an excellent

learning environment amid the towering deodar trees with a unique blend of distinguished faculty, brilliant students and strong IT industry collaborations. Its new building, “SILVER WOODS ESTATE”, situated amid rich flora and fauna has been aesthetically planned and designed with excellent infrastructural facilities to offer a congenial environment for the students. The students here pursue their studies in a perfect serene and tranquil environment with beautiful and exquisite surroundings. It is the place where the students lay a strong foundation of their careers.

In view of three new Engineering courses added to the already existing two well established courses, UIT is one the largest Department of H. P. University. Thus, the expansion of campus of UIT is in the priority list of University authority. Hon'ble Vice Chancellor is pressing hard to get new academic blocks and residential buildings constructed in near future and process for this is underway. Very soon we would be able to see new additional infrastructure constructed for UIT.

# AICTE SPONSORED FIVE-DAYS FACULTY DEVELOPMENT PROGRAMME ON “DISASTER RESILIENT INFRASTRUCTURE”



Five days long online Faculty Development Programme (FDP) titled ‘Disaster Resilient Infrastructure’ sponsored by All India Council for Technical Education (AICTE) was successfully conducted through virtual mode w.e.f. **9.08.2021 to 13.08.2021** in the UIT, Himachal Pradesh University Shimla. The FDP was organised by Head of the Department of Civil Engineering, Dr. Mahesh Sharma. The resource persons were from the renowned Universities/

Institutes all over the globe. There were around 180 participant faculty members and research scholars from various Institutes/Universities across the globe who attended this FDP. The inaugural function of this online programme was presided over by Sh. Vivek Chandel, Director Technical Education H.P., who was also the Chief Guest of the occasion. There were 14 sessions in this FDP. Three lectures on the various issues, pertaining to the different types of disasters and their respective mitigation



strategies, were delivered each day by the worthy resource persons. The major emphasis was laid on the hazards associated with earthquakes and landslides predominantly occurring in the Himalayan region.

On the first day, the first lecture was delivered by Dr. Shantanu Sarkar, Chief Scientist & Head, CSIR – Central Building Research Institute, Roorkee. He delivered an exhaustive lecture on “Landslide Hazard Assessments and Mitigation Strategies in the Himalayas”. Subsequently, Dr. Mariagiovanna Moscariello, Senior Researcher, Dept. of Civil Engineering, University of Salerno, Italy presented a novel study on “Multiscale Laboratory Testing and Constitutive Modelling of Unsaturated Pyroclastic Soils”, in which she talked about the landslides triggered due to volcanic eruptions. The last lecture of the day was presented by Prof. Priyanka Ghosh from Department of Civil Engineering, IIT Kanpur.

Prof. Ghosh talked about Employing Active Vibration Screening in Soil Using Geofam and Bamboos.

On the second day, world renowned Prof. Deepankar Choudhury, Chair Prof. & Head, Dept. of Civil Engineering, IIT Bombay and Dr. Ashutosh Kumar, Asst. Prof., Dept. of Civil Engineering, IIT Mandi delivered a joint lecture on Earthquake Resilient Foundation System. They emphasised that foundation systems act as bridge between the building and the soil media. Dr. K. V. Uday, Asstt. Prof., Dept. of Civil Engineering, IIT Mandi spoke on “Landslide Disaster Risk Reduction: Approaches, Options and Opportunities”. He talked about landslide risk mitigation schemes both for structural and non-structural solutions. He also talked about the early warning system developed by IIT Mandi. Dr. Anindya Pain, Senior Scientist, CSIR – CBRI, Roorkee delivered an extensive

lecture on “Slope Stabilization using Different Reinforcement Techniques Focussing on the Himalayan Region.”

Third day included three classical lectures on liquefaction and landslide disaster mitigation by eminent faculties of Centrally Funded Technical Institutes like NIT Jalandhar (Prof. Arvind K Agnihotri), NITTTR Chandigarh (Dr. Hemant Kumar Vinayak), and NIT Hamirpur (Dr. R.S. Banshtu). The lectures focused on “Theoretical Aspects of Stable Construction Practices and their Implementation in Field for a Disaster Resilient Design.” Common engineering problems such as liquefaction were discussed in detail to provide a detailed knowledge of the problem.

The fourth day started with a spiritual session of Sh. Ramnik Bansal, a renowned spiritual teacher. The session was purposely included in the schedule to rejuvenate the minds of the participants and the organisers, so that they could concentrate duly on the upcoming lectures and inculcate the practice of meditation for a path breaking research. The spiritual session was followed by a lecture by Dr. Ashutosh Kumar, IIT Mandi. He shared his knowledge on “Seismic Performance of Heritage Structures.” The soil structure interaction is a realistic problem and must be addressed while designing a disaster resilient structure. Dr. Thejesh Kumar Garala, Post-Doctoral Researcher at the renowned University of Nottingham, UK, laid emphasis on the same and extended his talk to layered soils.

The fifth and the final day marked the conclusion of the informative FDP with two lectures by international experts. Dr. Alejandro Martinez, Asst. Prof. at Dept. of Civil and Environmental Engineering, UC Davis, United States, delivered his talk on “Bioinspiration for Load Transfer and Soil Penetration Processes.” He also shared his knowledge about the Geotechnical Centrifuge modelling with the participants. The last lecture was delivered by Dr. Partha Mishra, Adjunct Lecturer, School of Civil Engineering, University of Queensland, Australia. He discussed some classic and noteworthy “Consequential Impacts of Evaporation on some of the Engineering Properties of Soils.”

The Valedictory function marked the cessation of the FDP. Dr. R. K. Soni, Director, e-Governance Cell, AICTE was the Chief guest and Guest of honour. Prof. P.L. Sharma, Director UIT, HPU Shimla, thanked all the Chief Guests, resource persons, and all the participants. He further expressed his satisfaction and appreciated the efforts of Dr. Mahesh and his team for working day and night in organizing the programme. He further stressed that it is essential for teaching fraternity to enhance their existing skills, develop new skills, and learn nuances of science of teaching. Finally, Dr. Mahesh extended a vote of thanks to the Chief Guests, resource persons, and the organising team of UIT, for making the workshop a huge success.



# ONE DAY WORKSHOP ON "INDUSTRIAL ARTIFICIAL INTELLIGENCE: THE HIDDEN SUPERHERO"

**O**ne day workshop was organized on 24<sup>th</sup> August 2021 at UIT of Himachal Pradesh University. The theme of the workshop was "Industrial Artificial Intelligence: The Hidden Superhero". The Chief Guest in the inaugural session of this workshop was Dr. Arvind Keprate, Associate Professor in Mechanical Engineering at Oslo Metropolitan University, Norway and he has also been a visiting researcher at Prognostics Center of Excellence at NASA Ames Research Center, California, USA. There were total 100 participants including faculty members and students of Himachal Pradesh University.

Chief Guest Dr. Keprate motivated students to pursue research as a career option and said that Norway is one of the best places with better opportunities and facilities for pursuing PhD or other research projects. In this workshop, the participants were given information about the emerging research areas such as MACHINE LEARNING, DEEP LEARNING and ARTIFICIAL INTELLIGENCE. Concluding the programme, Prof. P. L. Sharma, Director UIT, congratulated Coordinator of the workshop, Er. Shweta Rajput, Programmer UIT & all the students. He motivated everyone to work towards and learn the real life applications based on these emerging technologies.

## THE ADMISSIONS: PRAVESH UIT-2021

**T**he UIT released an e-prospectus "PRAVESH UIT 2021" for undergraduate B. Tech. programme for the academic session 2021-22 on June 2021. The portal to fill the admission form was opened on 15.06.2021 for the applicants seeking admission in first year and second year (lateral entry). The entrance test for the admission to B. Tech. first year was conducted on 18.08.2021 at four centres within the territory of Himachal Pradesh. The result was declared on 26.06.2021. Subsequently the merit list and counseling schedule were released on 31.08.2021.

On the basis of the marks scored, seats were allotted to the candidates by conducting 10 rounds of counseling, starting from 03.09.2021, most of which were carried out in University Auditorium under the able guidance and supervision of Prof. P. L. Sharma, Director UIT and with the planning of Admission Coordinator Dr. Shyam Chand. As usual, UIT received overwhelming response for the admissions. Due to which about 332 new students were admitted in B. Tech. (IT/CSE/ECE/CE/EE) first year and lateral entry second year.



# FOUNDATION DAY







University Institute of Technology (UIT) was established on 11.09.2000. So, the 21<sup>st</sup> Foundation Day of UIT was celebrated on **September 11, 2021**. Hon'ble Vice Chancellor Himachal Pradesh University, Prof. Sikander Kumar was the Chief Guest of this proud moment. The programme started with the lighting of the lamp in front of Maa Saraswati, the Goddess of Knowledge and Wisdom. On this occasion, three new Laboratories of new departments (Electrical Engineering, Civil Engineering and Electronics & Communication Engineering) were inaugurated. Prof. Arvind Kalia, Dean of Studies, Prof. Nagesh Thakur, Dean of Faculty of Engineering and Technology, Prof. Arvind Bhatt, Dean Planning and Teacher Matters, Prof. Chandra Mohan, Director IQAC, HPU and Prof. Jawahar Thakur, Coordinator UIT were also present as special guests in the function. Prof. P. L. Sharma, Director of UIT welcomed the chief guest & all the distinguished guests and congratulated



to all the teaching & non-teaching staff and students of UIT on the occasion. In his speech, Prof. Sharma mentioned about the major works done in his tenure such as construction of roads leads to UIT main entrance, AICTE approval, opening of three new B. Tech branches, recruitment of faculties and so on. He also said that soon we will have digital library, N.C.C. and TEQIP cell in the institute. He requested Vice-Chancellor, HPU for setting up of independent examination cell as well as for construction of new building of UIT. Dr. Shyam Chand, Head of the Department of Applied Sciences and Humanities, UIT; presented a brief report of the major achievements done by UIT during the last three years. Institute's newsletter named 'Bit-Wits' (Volumes 3 and issue 3 & 4), three year progress report and Vision document 2025 were also released in this programme. All the heads of departments of various B. Tech branches gave presentations on the development and future plans of their respective departments. On this occasion, respected Vice-Chancellor awarded scholarships to toppers named Kumar Paras, Tripti, Pavshi, Saurav Sharma and Arpit Kaushal, of various department of UIT. Apart from this, under "Shri Badrika Ashram Emerging Youth Scholarship Scheme" 10 meritorious students coming from economically weaker sections named Himanshu Chaudhary, Shalini Bhatt, Jatin Kashyap, Deeptansh, Parul Sharma, Saurav Kumar, Gaurav Singh, Ayush Thakur, Isha Kohli

and Harsh Sharma were given a scholarship amount of Rs. 90,000/- each.

Following this, all the guests gave their speeches and congratulated UIT for its 21st foundation day. They appreciated the efforts of Directors, teachers and students for taking UIT to such a high stature. The Hon'ble Vice Chancellor Prof. Sikandar Kumar appreciated the efforts of Prof. Sharma and promised that, UIT will have a Mini Auditorium by the end of year 2022 and NCC wing and also SDO & JE will be appointed in the UIT independently so that the construction works can be accelerated. He said that UIT has made progress in various dimensions. It has gained a lot of fame all over the country and has earned a brand name. He motivated all the faculty members of UIT to work in the field of Research, MoU, and Innovation & Incubation at national & international level and assured all possible assistance for this. Concluding the programme, the Vice Chancellor congratulated and encouraged all the members of UIT to work in the direction of taking institute to greater heights. He assured to provide all possible support and assistance for the development and grown of UIT in future. Finally, the programme came to an end with singing of National Anthem. All the dignitaries, faculty members, non-teaching and technical staff and students enjoyed the special lunch hosted by UIT on the occasion of its grand foundation day celebration-2021.

# HINDI DIWAS CELEBRATION



UIT celebrated Hindi Diwas on **14 September 2021** in the campus. On this occasion Prof. P. L. Sharma, Director of UIT said that Hindi is the identity of India's culture and identity. He called upon everyone to give importance to Hindi and said that a person who respects his mother tongue is the best. Professor Sharma in his address also made everyone aware that Hindi is the most spoken and understood language in the world. Focusing on the importance of Hindi, he said that we

need to promote and spread Hindi by using Hindi language in government as well as non-government works. He said that Hindi should get equal place in English schools also. Dr. Sanjay Sharma, Assistant Professor, Electrical Engineering and Dr. Shalu, Assistant Engineer, Electronics & Communication Engineering, UIT talked about History and the importance of Hindi Diwas. The Programme was coordinated by Dr. Nikita Gupta, Assistant Professor, Electrical Engineering.





# ENGINEER'S DAY CELEBRATION

University Institute of Technology (UIT) organized Engineer's Day on 15th September 2021.

The chief guest of the event was Er. Ram Kumar Sridhar, Superintending Engineer (P&D), Himachal Pradesh Road and Infrastructure Development Corporation Limited. Er. J. K. Gupta, Executive Engineer, PWD Construction Department, H.P. University, was the Guest of Honour and Shri Rajesh Thakur, Shri Kamlesh, Shri Prem Chauhan, Shri Mahendra Pal, Shri Sanjay Bharadwaj and Shri Jagdish Thakur, Engineers of the H.P. University, were also the part of this function. To make this occasion memorable, tree plantation was also done in the UIT campus by the Chief Guest, Guest of Honour and Director of UIT, Professor P. L. Sharma. The Director welcomed all the guests and congratulated all the teaching staff and students of UIT on this occasion. Speaking on this special day, Prof. Sharma highlighted the contribution of engineers in the society and discussed the role of engineers in the structural development of the whole world and said that we all should take inspiration from the life of great civil engineer M. Visvesvaraya who always gave importance to time and discipline. Prof. Sharma said that Bharat Ratan M. Visvesvaraya is considered as one





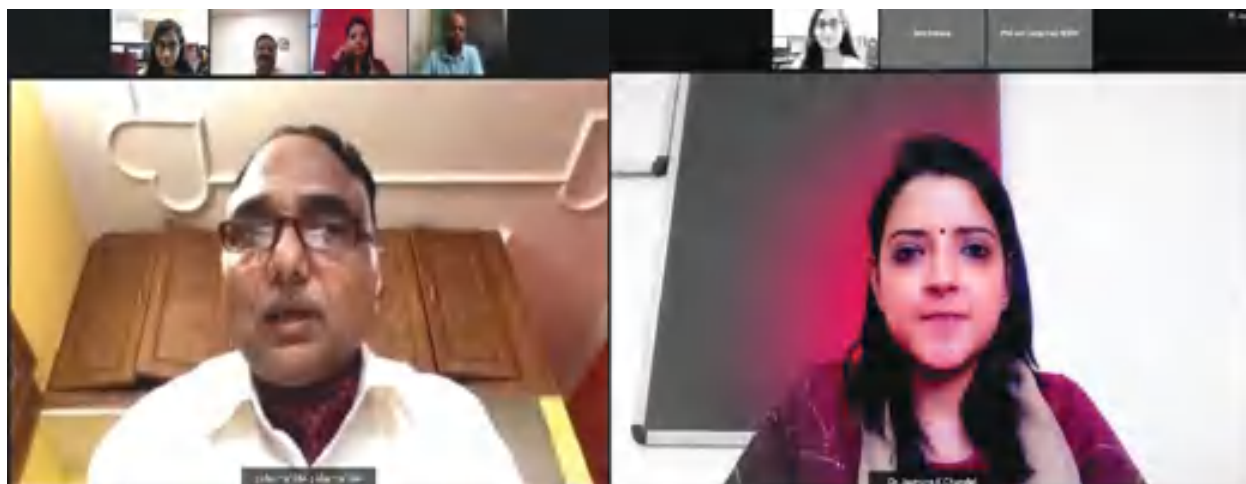
of the foremost nation-builders, who performed such miracles on which modern India was built and in his remembrance, this day is celebrated every year on 15 September since 1968 to commemorate his great works. On this occasion, the Chief Guest Er. Sridhar discussed about the latest technologies being used within and outside the country and said that the country is also working in the development

of Hybrid Power Plants. He also added that apart from India, this day is also celebrated in Sri Lanka and Tanzania on 15th September. Dr. Neeru Sharma, Associate Professor and Dr. Mahesh Sharma, Dr. Anjali Sharma, Er. Harish Chand, Assistant Professor, UIT also gave their presentations in this programme. The programme was coordinated by Dr. Jasmine Kaur, Assistant Professor UIT.

## ONLINE WEBINAR ON “RESILIENCE WITH GREEN GROWTH: THE FUEL OF THE FUTURE”

University Institute of Technology (UIT) of Himachal Pradesh University organized an online webinar on “**Resilience with Green Growth: The Fuel of the Future**” in collaboration with National Institute of Disaster Management (NIDM), Ministry of Home Affairs Government of India on 27<sup>th</sup> September 2021. The event was inaugurated by Maj. Gen. M. K. Bindal Executive Director, NIDM, MHA, GoI. The welcome address was

presented by Prof. P. L. Sharma, Director UIT, HPU Shimla and Prof. Anil Kumar Gupta, Head ECDRM division, NIDM, MHA. In his talk, Prof. Sharma highlighted the need for the Resilience with Green Growth and said there is a need for solution oriented approach towards this issue. There were two sessions in this online webinar where around 50 participants from all over the country took part. The resource person for the first session was Dr. Som Mandal,



Assistant Professor, Department of Energy & Environment, TERI and in the second session, the resource person was Dr. Jasmine K. Chandel, Assistant Professor, Electrical Engineering Department UIT, HPU. The programme was

sponsored by NIDM, GoI, New Delhi. At the end of the programme, Dr. Kopal Verma, Junior Consultant, NIDM extended a vote of thanks to the Patrons, resource persons, and the organizing team for making the webinar a huge success.

## ONLINE TRAINING PROGRAMME ON GEOHAZARDS AND DISASTER RESILIENT INFRASTRUCTURE

A three days online training programme started at UIT, Himachal Pradesh University, Shimla on 28<sup>th</sup> September, 2021 through virtual mode on the topic “**Geohazards and Disaster Resilient Infrastructure in the Himalayan region**”. This Programme was organised in collaboration with National Institute of Disaster Management (NIDM), Ministry of Home Affairs, Government of India. The event was inaugurated by Chief Guest Prof. Sikander Kumar, Vice Chancellor of H.P. University. In his speech, he highlighted the importance of such training/awareness programmes aimed at disaster management and assured that more such collaboration are welcomed with H.P. University which would benefit the society at large. The welcome address was presented by Prof. P. L. Sharma, Director UIT, H. P. University, Shimla. Prof. Sharma added that more of such programmes should be organised to promote awareness for disaster resilient infrastructure specifically for Himalayan region. The event was coordinated by Dr. Jasmine K. Chandel, Dr. Mahesh Sharma and Er. Rahul Prashar, Assistant Professor UIT, H. P. University Shimla.

# FIVE-DAYS FACULTY DEVELOPMENT PROGRAMME ON "PHOTONICS TECHNOLOGY"



**F**ive days long online Faculty Development Programme (FDP) on the 'PHOTONICS TECHNOLOGY' duly approved by All India Council for Technical Education (AICTE) has successfully been conducted through virtual mode w.e.f. 04.10.2021 to 08.10.2021 in the University Institute of Technology (UIT), H.P. University Shimla. This FDP programme was organised by the Department of Electronics & Communication Engineering, UIT and Coordinated by Dr. Tarun Sharma, Assistant Professor, UIT. The Resource Persons were from renowned Universities/Institutes from all over the country as well as from abroad, who shared their research work in area of Photonics. There were 14 sessions in this FDP and during this programme, three lectures were delivered by the speakers every day on the technological advances and development in the area of photonics. The major focus of all these sessions were on the paradigm shift to silicon photonics from electronics circuit and role of photonics in 5G communication and Internet of Things.

The inaugural session was conducted on 4<sup>th</sup> October 2021 at 10:00 am in the presence and supervision of Prof. P. L. Sharma, Director UIT, H. P. University Shimla. The Chief Guest for the inaugural session was Prof. Arvind Kalia, Dean of Studies,

H.P. University Shimla. The Guest of Honour Prof. Arvind Kumar Bhatt, Dean Planning & Teachers' Matter, H. P. University Shimla, and Er. Ankush Sharma, Senior Application Expert, CADFEM India Pvt. LTD. were also present in the inaugural ceremony. Welcoming the dignitaries and faculty members to the programme, Prof. P. L. Sharma congratulated the faculty members for their sincere efforts and rapid adaptation to the new virtual mode of teaching-learning. He also added that about 100 faculty members from all over the country are participating in this FDP. The Guest of Honour Prof. Arvind Kumar Bhatt talked about electronic devices and assured that such events would be welcomed by the University as these are beneficial for the development of the students and faculty members. In his speech, the Chief Guest Prof. Arvind Kalia, Dean of Studies, H. P. University Shimla, highlighted the importance of photonics and its applications in various fields such as life sciences, health care, security and safety.

The valedictory session was held on 8<sup>th</sup> October 2021 at 03:00 pm. Prof. Nagesh Thakur, Dean Faculty of Engineering & Technology, H.P. University Shimla, was the Special Guest in the valedictory ceremony. Prof. Thakur congratulated the organizing team of UIT and said that such programmes are important



for the awareness and self-growth of faculty members. Prof. Sharma, Director UIT, thanked all the Chief Guests, resource persons and all the participants. He appreciated the efforts made by the faculty members of Electronics and Communication Engineering Department for working day and night in organizing the programme. He further stressed that it is essential for teaching fraternity to enhance the existing skills, develop new skills, and learn

nuances of science of teaching. Finally, Dr. Tarun Sharma extended a vote of thanks to the Chief Guests, Resource persons and the organising team of UIT, for making the workshop a huge success. Dr. Shalu, Assistant professor UIT hosted the programme and Dr. Richa Chandel, Dr. Neeru Sharma, Dr. Kapil Bhatt and Er. Rajeev Kumar, were actively involved in the organisation of the programme.

## APPOINTMENT OF COORDINATORS



**Dr. Ramesh Thakur**



**Dr. Sumesh Sood**

### Coordinators UIT

For a smooth functioning of academic and administrative processes of UIT, a Coordinator is deputed by the Hon'ble Vice Chancellor. Normally UIT used to have one Coordinator. As UIT has grown rapidly during the past three years in terms of programmes being offered and hence the student strength; therefore, the Hon'ble Vice Chancellor had been kind enough to appoint two Coordinators for

UIT. On 18.10.2021, Dr. Ramesh Thakur, Associate Professor from Department of Chemistry, H. P. University Shimla and Dr. Sumesh Sood, Associate Professor from ICDEOL, H. P. University Shimla; were appointed as Coordinators UIT. This move from the Hon'ble Vice Chancellor will definitely strengthen UIT and UIT looks forward for their contribution towards the growth of UIT.

# TWO-DAYS "INDUCTION PROGRAMME" FOR FRESHERS



University Institute of Technology (UIT), Himachal Pradesh University, Shimla successfully organized a two-day "**Induction Programme**" for freshman B. Tech. students from **18-19 October 2021** held at university auditorium. The function started with Saraswati Vandana by lighting the lamp on 18 October 2021 at 11:00 am. All the first year as well as lateral entry students along with their parents were present in the Programme. In the morning session, Prof. Sikandar Kumar, the Hon'ble Vice Chancellor, H. P. University

Shimla, graced the occasion as the Chief Guest, while Prof. Arvind Kumar Bhatt, Dean Planning and Teachers Matter, were the Special Guests for the occasion.

Prof. P. L. Sharma, Director UIT, welcomed all the dignitaries and addressed the students. He said, "Now that your parents have sent you here, now you are the responsibility of UIT and with your cooperation, the University will surely make your dreams come true". Professor Sharma made students aware about various activities and facilities available in UIT



like high-tech laboratories, smart classrooms, scholarship opportunities, various clubs, social activities etc. that will help in the overall development of the students. On this occasion Prof. Bhatt also addressed the students and parents and congratulated them for choosing UIT. He appreciated the efforts of the Director and Faculty Members for making UIT an excellent place for pursuing technical education. Prof. Bhatt wished the newly admitted students for their bright future.

Prof. Sikander Kumar, the Hon'ble Vice Chancellor H. P University Shimla and the Chief Guest of the occasion said that the alumni of HPU have achieved great positions at National and International level and he is

confident that in the coming years UIT will be amongst the top reputed Institutes of India. He assured that infrastructure, placement cell and other requirements of the students would be met soon. He urged the students to work hard, work together, respect parents and teachers. He added that a balanced life is more important than money and success.

The evening session of the first day started at 2:30 pm. The Chief Guest of this session was Shri. N. L. Sharma, Chairman and Managing Director of SJVNL and Prof. D. D. Sharma, Director UGC-HRDC H. P. University Shimla, was the Guest of Honour for the session. In this session, Dr. Shyam Chand, Head of the Department of Applied Sciences and



Humanities, UIT presented a talk on curricular aspect of B. Tech./B. Tech. (Honours) at UIT, whereas Dr. Mahesh Sharma Assistant Professor UIT, highlighted the placement journey of UIT and shared motivational messages from the various alumni working in reputed national and international companies. Chief Guest of the evening session, Shri N. L. Sharma in his address appreciated various activities and events planned for freshers during the induction Programme and congratulated all the students for starting their journey in University Institute of Technology, Himachal Pradesh University Shimla. In his address, he mentioned that admission in UIT is the gateway of success and their bright future. He shared his experience about target based planning and UIT also must adopt the same philosophy in order to achieve the desired goals. He also extended his commitment for the financial support to the students and faculty of University Institute of Technology for internships and research projects. He emphasized on the fact that hard work is the only way to success and there is no shortcut for achieving desired goal. He also urged students to keep their spirit and goals high in their lives. In his address, he told that engineer's community have great potential in every walk of life and are the important pillars and stakeholders of the Nation.

The valedictory ceremony was held on 19<sup>th</sup> October 2021, 10:30 am with Saraswati Vandana by lighting the lamp followed by the University Kulgeet. Programme started with the welcome note by Prof. P. L. Sharma, Director UIT. The Chief Guest of the morning session was Prof. Lalit Kumar Awasthi, Director NIT Hamirpur and Guest of Honour was Shri Sudesh Kumar Mokhta (IAS), Director Environment, Member Secretary HIMCOSTE, Special Secretary Disaster Management and Revenue Government of Himachal Pradesh. In the welcome note, Prof. Sharma thanked all the dignitaries for sparing their valuable time and said that students were very fortunate to have the chance to interact with such famous personalities who are excelling in their fields. Further, by citing the example of Dr. Abdul Kalam he said that it would be no exaggeration to say that Dr. Kalam emerged as a great nation-builder and defined new nationalism for an emerging India in similar way student must have the sense of nationalism in them for the development of the Nation. Guest of Honour, Shri Mokhta shared his experiences about his stay in the University during his PG degree and added that University is full of opportunities, creative environment and is a talent hub. He appreciated the administration and the Vice chancellor of HPU for the tremendous growth made during the



last few years. He also shared his struggles and motivated students to set desired goal and work hard for it with positivity and enthusiasm. Chief Guest of the morning session, Prof. Awasthi, virtually addressed students and asked them to be focused on what is good for them, utilize all the possible resources and grab every leaning opportunity. He invited students to visit NIT Hamirpur for participating in technical events such as Hackathon, as latter will help them in growing up in talent and said that the students need to look into how they can apply theoretical knowledge in real life. He urged students to be sincere, acquire requisite skills, explore all the possibilities of acquiring knowledge from outside and explore certain activities related to problem solving. He also guided students to choose friends very wisely and told them to be in a situation where they can grow and be in an encouraging environment so that they can explore their potential and deliver their best.

The evening session started at 2:30 pm. The Chief Guest of this session was Er. Pawan Kumar Sharma, Chief Engineer and Project Director, HPRIDCL Shimla and the Guest

of Honour was Er. Ram Kumar Sridhar, Superintending Engineer, HPRIDCL Shimla. Sharing his vast experience, Chief Guest Er. Pawan Kumar Sharma addressed the students with a motivational speech and advised the students to be dedicated and committed. Also he appreciated the efforts and spirit of UIT for conducting such an informative and effective programme for new entrants. Sharing his views on the occasion, Er. Ram Kumar Sridhar said that to become a good engineer, students need to develop various qualities like discipline, innovative thinking, and creativity.

On this occasion all the HoDs of UIT gave information about their respective departments, made students aware of the career opportunities in the respective fields and also presented their future plans. The final year students of UIT presented various mesmerizing performances in the welcome of new entrants. All the faculty members and student volunteers of UIT were actively involved in organizing this event. The programme ended with a vote of thanks by Dr. Anjali, who has also hosted the entire event.



# QUALITY COUNCIL OF INDIA (QCI) CONDUCTED VIRTUAL MEETING WITH UNIVERSITY INSTITUTE OF TECHNOLOGY, HPU SHIMLA

Quality Council of India (QCI) conducted virtual meeting with University Institute of Technology (UIT), Shimla for the **TEQIP Phase IV on 21<sup>st</sup> October 2021 at 11:00 am**. The meeting was coordinated by Dr. Kapil Bhatt, Assistant Professor (ECE) UIT, who is also the Coordinator of TEQIP in UIT. All the HODs and Faculty members have attended this virtual meeting. This meeting was conducted for detailed virtual assessment of UIT. During the interaction, the issues regarding the research activities,

Lab facilities, projects in pipeline, funding, existing and future collaboration were discussed. The team members were apprised about all the achievements and present status of UIT with regard to funding etc. Dr. Neeru Sharma, Associate Professor UIT headed this meeting and said that TEQIP funding is important for UIT for strengthening the quality of technical education and it will help our faculties to expand their research areas by collaborating with top institutes and research organizations.



# AN EXPERT TALK ON “COMPETITIVE POWER SECTOR WITH GREEN ENERGY SOURCES”

UIT, Himachal Pradesh University, Shimla organised an expert talk on “**Competitive Power Sector with Green Energy Sources**” on 17.11.2021. An initiative of Electrical Engineering department of UIT, this talk was planned with motive to provide industry and technical exposure to the graduate students. The speaker of this programme was Dr. Naveen Kumar Sharma, Assistant Professor and Head, Electrical Engineering Department, I. K. G. UNIVERSITY, PTU Jalandhar. The talk was delivered via virtual mode and around 60 students of B. Tech. Electrical Engineering attended this programme.



In his speech, Dr. Sharma talked about current power scenario in India and said that renewables hold the future of power sector in India. The talk was interactive and informative to the students. Lastly, the event ended with a vote of thanks by Dr. Jasmine Kaur, Assistant Professor, Electrical Engineering Department, UIT, HPU Shimla.



# INDUSTRIAL VISIT TO GIS SUBSTATION, SUMMERHILL

The Electrical Engineering Department of University Institute of Technology (UIT), H. P. University Shimla, organized an **Industrial Visit** for the third year Electrical Engineering (EE) students to H. P. State Electricity Transmission Company 33/11kV, 2x6.3 MVA GIS Substation Summerhill, on **25.11.2021**. There were a total 73 students along with the two faculty members Dr. Nikita Gupta and Dr. Disha Thakur, Assistant Professors, UIT. The purpose for this visit was to make students familiar with industrial environment and to get practical knowledge of electrical power transmission and distribution system. Shri Kishore Kumar, AE Substation Summerhill, received students with a warm welcome and shared

requisite instructions and precautions for the visit. The Engineers at the station exposed students to the various units of substation, methods of monitoring through control room and the battery room. Students interacted with the authorized persons at substation and had a great technical discussion regarding components such as the transformer, circuit breakers, protective relays, lightning arresters, earthing system, current and voltage transformers etc. Prof. P. L Sharma thanked all the officials of Substation and appreciated the efforts of Dr. Nikita Gupta in organizing this visits. He added that such industrial visits, which help students to enlarge practical knowledge, will be conducted in future also.



# AN EXPERT LECTURE BY FOREIGN EXPERT ON "MICROGRIDS"

University Institute of Technology (UIT), Himachal Pradesh University Shimla organized an expert lecture on "Microgrids" on 27.11.2021. Prof. P.L Sharma, Director UIT, appreciated the efforts of Electrical Engineering Department in organizing this talk and said that industry-academia collaborations are important for self-growth and career advancement of faculty members as well as for the students and such collaborations will always be welcomed by the University. The event was coordinated by a Dr. Jasmine Kaur, Assistant Professor (EE) & Faculty Mentor (B. Tech. Third Year). The talk was planned with the motive to

provide research and technical exposure to the graduate students. The talk was delivered by foreign expert, Prof. Vijay Sood, Chairperson of the Department of Electrical, Computer and Software Engineering, Ontario Tech University, Oshawa, Canada. Around 50 students of B. Tech. Electrical Engineering attended this

programme. In his speech, Dr. Sood presented a case study of modeling and installation of microgrids in the University campuses. He talked about current power scenario in India and said that renewables hold the future of power sector



in India. The talk was extremely interactive and invoked the research acumen in many students. The event ended with a question-answer session between the foreign expert and students. Lastly, a vote of thanks was presented by Dr. Jasmine Kaur, Assistant Professor, Electrical Engineering Department, UIT, HPU Shimla.

# AN EXPERT TALK ON "BJT AMPLIFIERS AND SMALL SIGNAL MODELING"

**U**IT, Himachal Pradesh University, Shimla organised an expert talk on "**BJT AMPLIFIERS AND SMALL SIGNAL MODELING**" on **30.11.2021**. Prof. P. L Sharma, Director UIT, appreciated the efforts of Electronics & Communication Engineering (ECE) Department in organizing this talk and said that such events provide an important educational experience and enable students to interact with professionals in formal and informal settings. The event was coordinated by a Dr. Neeru Sharma, Associate Professor (ECE). The talk was delivered by Dr. Rohit Dhiman, Assistant Professor NIT Hamirpur (HP). Around 50 students of B. Tech. ECE attended this programme. The event ended with a question-answer session between the expert and students.

## COLLABORATIONS/MoUs

S. No.	Name of the Institution/ Organization with whom MoU was signed	Dated
1.	University Institute of Engineering and Technology Kurukshetra University, Kurukshetra, Haryana	02.07.2021
2.	Sri Badrika Ashram Cum Charitable & Social Welfare Society	03.08.2021
3.	SJVN Ltd., Shimla, HP	23.09.2021
4.	HP State Disaster Management Authority(SDMA), HP	07.10.2021
5.	National Institute of Technology, Hamirpur, HP	18.11.2021



# DIRECTOR'S ACHIEVEMENTS

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## **Prof. P. L. Sharma, Director UIT.**

1. Acted as a subject expert in selection committee (via offline mode) in Faculty interview of Mathematics Department NITH from 10AM – 1PM on 20.8.21. Other members of the panel: Director Awasthi, Prof. S. K. Pandey, Prof. Parthi and Dr. P. K. On the same day, during 2-5PM, acted as a subject expert in the selection committee of Lecturer interview in the St. Bedes College.
2. Acted as an Observer in the SLIET-SET(2021) which was conducted in Snowhill, Shoghi On 24.8.21,.
3. Inspection of (i) Govt. College Ghumarwin (ii) Govt. College Jhanduta, was done as an Expert for Mathematics and in the capacity of Hon'ble Vice Chancellor's Nominee.
4. On 2.9.21, Ph.D. Viva voce of Mr. Sanjay Kumar, working under the guidance of prof. A. Gupta, was conducted.
5. Headed UIT Counselling of B. Tech. 1<sup>st</sup> year held during 03.09.21-07-09-21.
6. On 6.9.21 and 7.9.21, International conference on Recent Trends in mathematics was conducted which was organized by HIMMS. Prof. Sharma was the convener.
7. On 12.9.21. Prof. P. L. Sharma acted as an observer in the NEET exam at center GSSS Lalpani.
8. On 14.9.21, Hindi diwas was celebrated in UIT at 3.30PM. Prof. P. L. Sharma was the Chief Guest.
9. Prof. Sharma was the part of Ph.D. Mathematics Standing Committees, held on 22.9.21.
10. Acted as an NTA Observer –Delhi Entrance Exam at Shimla (Online Exam Solutions 28.9.21-1.10.21)
11. Acted as a Centre Superintendent at GC Bajinath Duty (Panchayat Secretary Screening test 22.10.21.
12. Acted as External for Ph.D. Progress Presentations NIT Hamirpur JRF-SRF (25.10.21)
13. Attended a BOS meeting at Deptt. of Mathematics, Bahra University on 28.10.21
14. i) EVC-Charmi ii) Member of Interview board at Bio-Tech. Deptt. Chakmoh College.
15. Research paper published during aug-Nov 2021
  - (i) Sharma P. L., Ashima and Sharma Arun Kumar, Recursive Construction of Normal Polynomial over Finite Fields, Journal of Discrete Mathematical Sciences and Cryptography, Published Online, <https://doi.org/10.1080/09720529.2021.1897215>
  - (ii) Sharma P. L. and Ashima, Construction of Irreducible Polynomials over Finite Fields, Asian-European Journal of Mathematics (Accepted for Publication)
  - (iii) Sharma P. L. and Gupta Shalini, Maximum Distance Separable Rhotrices From Sylvester Rhotrices Over Finite Fields, Himachal Pradesh University Journal (HPUJ) (Accepted for Publication)
  - (iv) Sharma P. L., Ashima and Kritika Gupta, Time Efficient Authenticated Encryption Scheme using Elliptic Curve Cryptography, Himachal Pradesh University Journal (HPUJ) (Accepted for Publication)

# FACULTY

## ACHIEVEMENTS

### **Dr. Neeru Sharma, HoD, Department of Electronics and Communication**

1. Was member of Admission & Counseling Committee for B. Tech. Admissions-2021.
2. Acted as a Deputy Superintendent for the Panchayat Secretary Screening Test-2021 held on October 22, 2021 at UIT, HPU.
3. Organized an FDP on “Recent Trends and Advances in Photonic Integrated Circuits and its Applications” from October 4- 8, 2021.
4. Delivered a lecture on “Introduction to ECE Department” on Student Induction programme 2021.
5. Organizing committee member for celebration of Foundation Day 2021.
6. Got the Electronics & Communication Lab inaugurated from the Hon’ble Vice Chancellor, HPU under the able guidance of Director UIT.
7. Appointed a member of “UIT Purchase Committee”.
8. Joined as Warden of “Vipasha Girls Hostel” on November 2021.
9. Was a member of project “OWL” organized by HPSDMA Department.
10. Published a paper titled “Proactive Connection Recovery Strategy with Recovery Time Constraint for Survivable Elastic Optical Networks” in China Communications in September 2021.

### **Dr. Balvir Singh Thakur, Assistant Professor, Dept. CSE**

1. Attended one week AICTE Training And Learning (ATAL) Academy Online FDP on "Machine Learning and Optimization Techniques: Applications to Financial Markets" organized by School of Basic Science, IIT Mandi (HP), 12-07-2021 to 16-07-2021.
2. Attended 7 days International Workshop on Artificial Intelligence, St. Claret College Bangalore, 15-11-2021 to 21-11-2021

### **Dr. Shalu, Assistant Professor, Dept. ECE**

1. Published one SCIE journal in Silicon, Springer- “Impact of Gaussian Doping on SRAM Cell Stability in 14nm Junctionless FinFET Technology”, October 2021.
2. Successfully completed Innovation Ambassador training (Foundation Level, Total 16 Sessions of 30 contact hours) conducted by MoE’s Innovation Cell & AICTE during the period from 5th August-31st August 2021 in online mode.
3. Successfully completed One-Day Online Workshop on "How to Conduct the Student Induction (SIP) Programme?" on 20<sup>th</sup> September, 2021 organized by All India Council for Technical Education (AICTE).
4. Organizing member of ATAL sponsored FDP on “Recent Trends And Advances In Photonic Integrated Circuits And Its Applications” held during 4<sup>th</sup>-8<sup>th</sup> October 2021.

### **Dr. Richa Chandel, Assistant Professor, Dept. ECE**

1. Published one SCI journal in IETE Journal of research- “CSRR loaded compact quadcore MIMO diversity antenna for UWB applications”, November 2021.
2. Successfully completed Innovation Ambassador training (Foundation Level, Total 16 Sessions of 30 contact hours) conducted by MoE’s Innovation Cell & AICTE during the period from 5th August-31st August 2021 in online mode.
3. Successfully completed ATAL sponsored FDP on “RF energy harvesting antenna design for wireless body area network: Design, Development & Challenges” held during 23<sup>rd</sup> to 27<sup>th</sup> August 2021.
4. Successfully completed One-Day Online Workshop on "How to Conduct the Student Induction (SIP) Programme" on 20<sup>th</sup> September, 2021 organized by All India Council for Technical Education(AICTE).
5. Attended ATAL sponsored FDP on “Recent Trends And Advances In Photonic Integrated Circuits And Its Applications” held during 4<sup>th</sup>-8<sup>th</sup> October 2021.

### **Dr. Nikita Gupta, Assistant Professor, Dept. EE**

#### **SEMINARS AND WORKSHOPS ATTENDED**

1. Webinar on ‘How to publish scholarly books in Science and technology’ organized by Taylor and Francis Group on September 22, 2021.
2. One-Day Online Workshop on & quot; How to Conduct the Student Induction (SIP) on 20<sup>th</sup> September, 2021 organized by All India Council for Technical Education (AICTE).



3. Innovation Ambassador training (Foundation Level, Total 16 Sessions of 30 contact hours) conducted by MoE Innovation Cell; AICTE during the period from 5th August-31st August 2021 in online mode.
4. One month online Faculty Induction Programme (Guru-Dakshata) organized by UGC-Human Resource Development Centre, Himachal Pradesh University, Shimla-171005 held from 12 th July 2021 to 10th August 2021.

#### **EVENTS ORGANIZED**

1. 'Industrial Visit' to HP state Electricity Transmission Company 33/11 KV 2\*6.3 MVA GIS Substation at Summerhill for 73 third year students of Electrical Engineering Department on 25th Nov 2021.
2. 'Hindi Diwas Celebration' in room number 5 of University institute of technology on 14 th September 2021 at 3.30 pm.

### **Dr. Jasmine Kaur, Assistant Professor (Electrical Engineering)**

1. Awarded and Completed the Project On "Design of An Intelligent and Efficient Light Control System" Under Project Monitoring Unit of RUSA "Equity Initiatives"
2. Organized 03 days online training workshop on "Geohazards and Disaster Resilient Infrastructure in Himalayan Region" sponsored by NIDM, Ministry of Home Affairs, New Delhi.
3. Delivered an expert talk on "Resilience with Green Growth" organized by NIDM, Ministry of Home Affairs, New Delhi.
4. Attended one month Faculty Induction Program by UGC-HRDC, University of Hyderabad, Telangana.
5. Organized a foreign expert talk on "Microgrids" for B. Tech Students of Electrical Engineering.
6. Organized an expert talk on "Renewable energy sources" for the B. Tech students of Electrical Engineering.
7. Serving As Coordinator for Village Adoption Program, Adopted Village Ghanahatti, under Totu Block, Shimla, H.P.
8. Published two research papers in International conferences.

# MEDIA COVERAGE

## यू.आई.टी. में शुरू होगा एम.टैक. व पीएच.डी., एन.सी.सी. यूनिट भी होगा स्थापित

यू.आई.टी. के नए विद्यार्थियों को प्रेरित करने के लिए, यू.आई.टी. में एम.टैक. व पीएच.डी. यूनिट भी स्थापित किए जा रहे हैं।



यू.आई.टी. में एम.टैक. व पीएच.डी. यूनिट भी स्थापित किए जा रहे हैं।

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## एचपीयू के यूआईटी में फोटोनिकस टेक्नोलॉजी पर कार्यशाला, विशेषज्ञों ने की कई विषयों पर चर्चा

विश्वविद्यालय



यूआईटी में फोटोनिकस टेक्नोलॉजी पर कार्यशाला का आयोजन किया गया।

एचपीयू के यूआईटी में फोटोनिकस टेक्नोलॉजी पर कार्यशाला का आयोजन किया गया।

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### FACULTY PROGRAMME INAUGURATED AT UIT

Director, Technical and Vocational Education, Vivek Chandra said disaster management was an important field for the entire country, particularly the hilly states. He said this while inaugurating a five-day Faculty Development Programme (FDP) on "Disaster resilient infrastructure" at the UIT, Himachal Pradesh University, through virtual mode. Scientists and researchers have been working continuously on the disaster management solutions since an earthquake shook Himachal in 1935, he added. Director, UIT, Pral P. Sharma said about 150 faculty members of the Civil Engineering Department from all over the country were participating in the programme.

### FACULTY PROGRAMME ON PHOTONICS

The University Institute of Technology (UIT), Himachal Pradesh University, Shimla, is virtually conducting a five-day faculty development programme on "Recent trends and advances in photonics integrated devices and its applications." The programme is sponsored by All India Technical Education (AICTE) and is being organized by Dr. Tarun Sharma, assistant professor of Electronics and Communication Department, UIT, PNH, Shimla. Director of UIT, said about 100 faculty members from all over the country were participating in the programme. There would be 18 sessions and the waste capacity was shared from various prestigious institutions of the country as well as abroad, he added.

### एचपीयू के यूआईटी ने गौर लिया एम्पाट्रिटी गांव

यूआईटी में एम्पाट्रिटी गांव का गौर किया गया।

## यूआईआईटी के नए छात्रों का हुआ परिचय सत्र

यूआईआईटी के नए छात्रों का हुआ परिचय सत्र।

## प्राकृतिक आपदाओं को कम करने पर विवि में होगा रिसर्च

प्राकृतिक आपदाओं को कम करने पर विवि में होगा रिसर्च।



यू.आई.टी. व राजस्व विभाग आपदा प्रबंधन के बीच एम.ओ.यू. साइन

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यू.आई.टी. व राजस्व विभाग आपदा प्रबंधन के बीच एम.ओ.यू. साइन।

Comming Up...

**Annual Techno-Cultural Fest**  
**UTKARSH-2021**

