

**DIRECTOR'S MESSAGE** 

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AWADH — TECHNOLOGY INNOVATION HUB

**RAJBHASHA GATIVIDHIAN** 

**NEW JOININGS** 



Ranking





# **Director Message**



Dear Members of the IIT Ropar Community,

As we reflect upon the past guarter, it is with immense pride and gratitude that I acknowledge the remarkable accomplishments and activities that have taken place within our vibrant institution. As we continue our journey of academic excellence and innovation, allow me to share with you some of the

significant events that have enriched our campus and strengthened our commitment to progress.. Our alma mater rejoiced as we hosted our very first Alumni Meet, reconnecting with the individuals who contribute to our legacy, embodying our motto of 'Karmasu Kaushalam'. The campus came alive with the vibrant student symposium "CESAFIESTA 1.0," where creativity, talent, and innovation took the centre stage. Marking our commitment to global concerns, occasions like the World Intellectual Property Day and World Environment Day were observed, reinforcing our responsibility towards sustainable development and intellectual advancements. We hosted enlightening sessions, including a talk on the awe-inspiring cycling expedition in the Himalayas, promoting adventure, fitness, and determination. International Day of Yoga and National Technology Day were celebrated with great fervor, reflecting our dedication to the holistic well-being and technological advancements. In the realm of industry collaboration, we proudly announced our partnership with Samsung Electronics, R&D, Noida, reinforcing our commitment to innovation and industry-driven research. In addition to the above there are many more achievements in research and innovation, along with the awards and recognitions to our esteemed faculties. These events and achievements stand as a testament to the dynamic and holistic environment that defines IIT Ropar. The quarter was ended with a remarkable achievement, as IIT Ropar soared higher in rankings in research category and overall category while maintaining the ranking in Engineering category, a testament to the collective dedication of our faculty, staff, and students towards excellence in education and research. I extend my heartfelt appreciation to our exceptional faculty, enthusiastic students, and dedicated staff, as well as our collaborators and well-wishers, for their unwavering support.

Together, we continue to shape the future with excellence.

Jai Hind!



from April 01 to 02, 2023. The event's theme was to share/discuss career opportunities for UG/PG/Ph.D. students. The critical event in the workshop was Expert talks and Open Sessions for better interaction with all participants. Experts in Industries, Academia, and influential personalities from the Army and Government fields were invited.

News, Events & Activities

IIT Ropar was ranked amongst the top 25 in NIRF rankings

2023. IIT Ropar has been placed 22nd in the Engineering

Category, 46th in Research, and 33rd in the Overall

Category. In research ranking we have entered the top 50

with the 46th rank, the first time in the Institute's history.

NIRF RANKINGS 2023

INDIAN INSTITUTE OF TECHNOLOGY ROPAR

Ranked 22nd in Engineering Category Ranked 33rd in Overall Category &

Ranked 46th in Research Index

MetSoc Society of

Metallurgical and

Materials Engineering

Department, IIT

Ropar, in collaboration

with INYAS, organized a

career workshop- ED-

VANTAGE at IIT Ropar

#### Research Scholars Day

The Department of Computer Science and Engineering and the Department of Electrical Engineering, IIT Ropar celebrated Research Scholars Day on April 8, 2023. The event included



interesting talks by Dr. N Kannan, Cadence; Mr. Rahul Prasad, Bobble AI; Mr. Tarun Yadav, DRDO; Mr. Pravesh Jain, CureFit; followed by poster presentations and demonstrations by research scholars, Circuit-design and Tech-crunch competitions and a panel discussion on the impact of Generative AI on Research.





#### • First Alumni Meet

To take a walk down the corridors of nostalgia, an Alumni Meet was organized by IIT Ropar on April 7, 2023. The occasion was graced by



more than 50 Alumni from the 2012 and the 2013 batches. There were many fun activities organized for all the Alumni. There was a visit to the transit campus which was the most enjoyable hour for the visitors. Additionally, there was an interactive session with faculty and Alumni where they recollected past memories at IIT Ropar. While addressing the gathering, the Director underlined and praised the achievements of Alumni of the Institute in all spheres of life. He felt that it was a matter of great pride for the Institute that its Alumni are holding positions of responsibility in various Government organizations, PSUs, Private sector, Academic Institutions. He expressed his delight that many of them are successful entrepreneurs creating jobs for others. The Meet ended with a cultural extravaganza and with a promise to meet again while everyone bid an emotional farewell to each other and the Institute.

#### IIT Ropar Organized a Student Symposium "CESAFIESTA 1.0"

The Department of Civil Engineering at IIT R op a r h a s organized the CESAFIESTA 1.0, a s t u d e n t symposium, on April 7–8, 2023. M r. Kulwant Kumar Sarangal,



ADGP Maharashtra joined was present for the inauguration ceremony and graced the audience with word of wisdom and motivation words.

The symposium witnessed expert talks, model building, poster and oral presentations along with a technical quiz. The director congratulated all the winners of the Quiz and Model Building competition and acknowledged the efforts of scholars for their Oral/Poster presentations. The event was sponsored by AIMIL, HEICO, ALLTERRA & Bawarchi restaurant for the smooth conduct of the event.

#### World Intellectual Property Day, 2023

IIT Ropar celebrated World IP Day, 2023 with the theme "Women and IP: Accelerating innovation and creativity" by giving certificate of appreciation to women scientists for



promoting innovation and creativity for a better and more sustainable future.

Prof. Rajeev Ahuja, Hon'ble Director, IIT Ropar applauded the efforts of women scientists at IIT Ropar for filing the IPRs and technology transfer transactions, leading to start-up formation and creation of jobs and revenues.

#### World Environment Day 2023

IIT Ropar, in association with Punjab Energy Development Agency, celebrated World Environment Day 2023 with the theme of "Beat Plastic Pollution" to create a sustainable future for our planet. The students from



Schools and Colleges participated in the tree plantation drive and also in events like poster making and quiz competition. The tree plantation was done in front of Super Academic Block of IIT Ropar.

# Interaction with Union Minister Shri Gajendra Singh Shekhawat on Jal Jeevan Mission

Union Minister of Jal Shakti, Shri. Gajendra Singh Shekhawat visited IIT Ropar on June 2, 2023 and interacted with the faculty and students on Jal Jeevan Mission with the SDG Goal 6.1 that aims to achieve safe and affordable drinking



water in the rural household by 2024.





"We are undergoing an era of transformation", he declared. While interacting with faculty and students, he added, "IITs should take the lead role in providing technological support to all the sectors in the region, particularly on climate change, water security etc." He sought the support and cooperation of IITs to make "Atmanirbhar Bharat" and to focus on quality & and excellence, strengthening the research ecosystem and to take responsibility and opportunity to reverse the water scenario in the country.

# A Talk on Cycling Expedition in the Himalayas

IIT Ropar organised a talk to create awareness about climate change and its impact on the Himalayan Glaciers by Prof. Raaj Ramasakaran from IIT Bombay and Prof. Farooq Azam from IIT Indore.



The Himalayan region harbors some of the most vulnerable glaciers worldwide, serving as crucial freshwater sources for millions downstream. However, these glaciers are swiftly receding due to escalating global temperatures, resulting in the depletion of vital water supplies and an increased susceptibility to natural disasters like flash floods and landslides.

# International Day of Yoga

International Day of Yoga was celebrated at IIT Ropar on June 21, 2023. IIT Faculty members, Staff and students participated and embraced the practice of yoga as a powerful tool for holistic



well-being. The theme for International Yoga Day was "Yoga for Vasudhaiva Kutumbakam" which reflects the Hon'ble Prime Minister Shri Narendra Modi Ji's vision for wellness of the people across the world as one family.

# National Technology Day

IIT Ropar celebrated National Technology Day on June 11, 2023 by organizing an "International Conference on Agriculture-Centric Computation" on May 11-13, 2023. The theme for the day was "Integrated Approach in Science and Technology for a Sustainable Future".



The event highlighted the achievements of Tech Giants, Researchers, and Engineers in technology in our country. The former Prime Minister of India, Shri Atal Bihari Vajpayee Ji established National Technology Day in 1999 to commemorate the Pokhran Nuclear Test.

# In the second second

IIT Ropar participated in the 3rd Health Working Group Meeting's exposition on Research and Development of Therapeutics, Vaccines and Diagnostics. The event



took place from June 4 to 6 at the Hyderabad International Convention Centre.

The event was graced by the Hon'ble Shri. G. Kishan Reddy Ji (Minister of Tourism, Culture and Development of the North Eastern Region), the Hon'ble Shri. S. P. Singh Baghel Ji (Union Minister of State) Ministry of Health and Family Welfare, Government of India, and the Hon'ble Shri. Bhagawanth Khuba Ji (Union Minister of State) Ministry of Chemicals & Fertilizers.

# • Green Urja Conclave 2023

IIT Ropar's collaborative effort with Atulya Ganga team on Water Quality Mapping of Rivers Ganga and Yamuna has been acknowledged in the Green Urja Conclave 2023. The team involved was felicitated by the Hon'ble Minister of Road Transport and Highways of India Shri. Nitin Gadkari on June 5, 2023 held at IIT Delhi.







# Sixth International Conference of The Robotics Society

IIT Ropar Organized the Sixth International Conference of The Robotics Society -'Advances in Robotics 2023' For this event, IIT Ropar welcomed a large gathering of national and international



delegates, including speakers from the University of Maryland, Columbia University, University of Calabria, NUS Singapore, University of Wollongong Australia, various IITs and NITs, DRDO, CSIR labs from July 5 to 8, 2023. 'Advances in Robotics 2023' (AIR) is the prestigious flagship conference of The Robotics Society (TRS) that witnessed a key milestone this year for completing ten years since its genesis at DRDO Pune in 2013. Prof Rajeev Ahuja, Director, IIT Ropar welcomed the guests and delegates and discussed the aspirations of IIT Ropar as a young IIT to play a vital role in the advancements of Robotics and AI in the country. Prof. Santanu Chaudhury, TRS President and Director IIT Jodhpur highlighted the vision of TRS as an international platform for promoting Robotics research by bringing together the academia and the industry.

# Commonwealth Professional Fellows Reunion Day

Nalanda Library, IIT Ropar in association with Commonwealth Professional Fellows Alumni (UEL Group) o r g a n i z e d C o m m o n w e a l t h Professional Fellows Reunion Day on July



14, 2023 as well as and a Workshop on Preparing Library Leaders of Tomorrow: developing Competencies and Skills on July 15, 2023. The Library and IT professionals from Chandigarh, Punjab, Haryana and Himachal Pradesh actively participated in the workshop.

The workshop was mainly focused on the theme of Library Leadership aimed to address the plethora of challenges faced by academic libraries and leadership development of young aspiring librarians who can become catalysts of change in their respective institutions and in the wider LIS sector.

# SAMRIDHI Startup Conclave

A dynamic collaboration with the Department of Science & Technology (DST), Government of India, culminated in the triumphant hosting of the



"Strategic Acceleration for Market, Research, Innovation & Development: a Holistic Initiative for ICPS Startups," more commonly known as the SAMRIDHI Conclave. This event, which unfolded on July 12, 2023, stands as a testament to the Institute's resolute commitment and a pioneering milestone in advancing revolutionary strides in Agriculture and Water Technology Development. The conclave's trajectory harmoniously aligns with the overarching National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS).

Prof. Rajeev Ahuja, Director of IIT Ropar, expressed profound gratitude for the confluence of endeavours uniting academia, industry, and startups, underscoring their pivotal role in shaping consequential outcomes. Dr. Pushpendra P. Singh, Project Director AWaDH, TIH, IIT Ropar, garnered well-deserved accolades for his unswerving commitment to advancing AWaDH's mission.

# One Day Workshop on Thermal Spray Awareness

DST sponsored A d v a n c e d Manufacturing Technologies (AMT), Centre of Excellence, IIT R o p a r , Degradation Resistant Thermal Spray Coatings Engineered for



Indigenous Industrial Applications organised one day Thermal Spray Awareness workshop on July 21, 2023 in the Mechanical Engineering Department.

The aim of the workshop was to provide high-level insights into the promising world of thermal spray and exploring its numerous applications in various industries and Research and Development. Prof Rajeev Ahuja, Director IIT Ropar inaugurated the workshop and shared his insights on thermal spray. Dr Satish Tailor, from MECPL Jodhpur (CoE Industry Partner) delivered the inaugural talk.





#### Meeting with ARTRAC HQ, Shimla

IIT Ropar and ARTRAC HQ, Shimla, represented by the Director, Prof. Rajeev Ahuja and GOC-in-C Lt. G e n . S . S . M a h a l, respectively, have agreed to cooperate in various training and R&D



programs through the Center of Excellence for Studies and Applied Research in Defence and Security at IIT Ropar.

Key areas of cooperation identified were Artificial Intelligence, fusion of emerging technologies in military systems, Cognitive Enhancement Psychological tools for new recruits and various healthcare techs. In the context of broad technological domains that can serve pan-Army needs, tech development in specialty textiles, additive manufacturing and drone training/warfare was comprehensively discussed.

#### A Talk on National Research Foundation

Dr. Akhilesh Gupta, Secretary, SERB - DST, Senior Adviser - DST, and overall in charge of the N a t i o n a l M i s s i o n o n Interdisciplinary Cyber-Physical Systems (NM-ICPS) visited IIT Ropar on August 11, 2023 to deliver a talk and Dr. Gupta interacted with the faculty



members and Ph.D. students on the topic "National Research Foundation – a Way Forward to Achieving India's Global R&D Leadership

#### Science & Technology (S&T) Cluster

The President of India through the O/o PSA, Government of India, has sanctioned the Northern Region Science & Technology (S&T) Cluster. This is going to be the first regional S&T Cluster in the country. The other S&T clusters are mainly city based. The Cluster will be situated in Chandigarh and will be jointly led by IIT Ropar and Punjab University, Chandigarh



The O/o PSA will be providing Rs. 10.35 cr as ignition grant which will be used to setup the cluster and to undertake the R&D projects. Five thematic areas (Agriculture and food processing, Pharma/medical devices/health-care, Indigenous technology development and optimization, Waste management and wealth from waste, Sustainable mobility and green energy) have been identified for this venture. The cluster will focus on Haryana, Punjab, Himanchal Pradesh, and J&K through collaboration and cluster - spoke model.

#### One Day Research Symposium "CheERS"

Department of C h e m i c a l Engineering, IIT Ropar organized a one-day research symposium called CheERS (Chemical Engineering



Research Symposium), August 19, 2023. This symposium seeks to create an engaging platform for students within the Department to share and present their research endeavors effectively. Various activities, including technical presentations and poster sessions, will facilitate knowledge exchange and contribute to a collaborative atmosphere within the Department. The symposium aims to enhance collaborations between the industry and academia, fostering networking opportunities for participants. Complementing these efforts, the KISEM (Kotak-IIT Madras Save Energy Mission) workshop on energy conservation will bring together experts from both academia and industry. Distinguished academic and industry speakers delivered plenary lectures and conducted skill development workshops during the symposium

#### Health talk by Parmar Hospital Ropar

IIT Ropar organized a health talk by Parmar Hospital Ropar to promote the importance of learning Cardiopulmonary Resuscitation (CPR) among students, staff, and fraternity members.



It's an excellent opportunity to gain valuable knowledge and maximize the benefits.





#### Partition Horror Remembrance Day

IIT Ropar observed Partition Horror Remembrance Day on August 14, 2023 in the memory of the struggles and sacrifices of countless people. An exhibition of the pictures of the turbulent period of the



partition has been set up at the Radhakrishnan Block. The exhibition showcases the largest displacement of human population in the last century, which also claimed the lives of several lakhs of people.

#### 77th Independence Day

IIT Ropar fraternity celebrated the 77th Independence Day. Director Prof. Rajeev Ahuja hoisted the National Flag accompanied by the singing of National Anthem.

Under the Aegis of the Azadi Ka Amrit Mahotsav Indian Institute of Technology Ropar is participating in the Har Ghar Tiranga movement to remember



our freedom fighters and to cherish the evolutionary journey of India along the path of progress. Collective engagement unfolded through a captivating array of activities and concluded with the distribution of refreshments.

# IIT Ropar In News

IIT Ropar researchers have used Artificial Intelligence (AI) to predict that P u n j a b 's groundwater-level recharge will decline 14 millimetres or .014 metres every year for the next d e c a d e . Th e Institute studied

Pb groundwater level recharge to drop 14 mm each year, predicts AI study by IIT Ropar

The Times Of India

PATIALA: Every "drop" counts. Ropar's Indian Institute of Technology (IIT) has used artificial intelligence (AI) to predict that Punjab's groundwater-level recharge will decline 14 millimetres or .014 metres every year for the next decade.

The institute studied recharge through rainfall in the agrarian state where the groundwater depletion is at an alarming level already. In 10 years, Amritsar is expected to have the fastest decline and Patiala the slowest. Amritsar's recharge rate of 12 mm a year could fall to 1 mm in a decade. Patiala's recharge rate of 15mm is predicted to drop to 8mm.

PhD scholar Dolon Banerjee and assistant professor Sayantan Ganguly did this study at civil engineering department by applying stilled letrillegene (AD and machine learning) recharge through rainfall in the agrarian state where the groundwater depletion is at an alarming level already. The study predicted that in 10 years, Amritsar is expected to have the fastest decline and Patiala the slowest.

IIT Ropar research scholars Mr. Parth Jain, Mr. Subham Subhasis Sahoo, Mr. Monu Kumar, Ms. Pooja Goyal have developed a mobile app under the supervision of Dr. Puneet Goyal,



Associate Professor, Department of CSE, IIT Ropar. It is a free mobile app to let the visually impaired students' access technical education content in the audio form. The content converted to sound includes the Mathematics and Science books of class IX and X. Arranged by both subject and chapter, the 'Audi4VI' app's content also allows the teachers of visually impaired students to post content for their class.





# Industry-Academia Collaborations

# MoU Signing with Hindustan University

IIT Ropar and Hindustan University joined hands through signing an MoU to foster collaboration and support the activities of Science & Technology and for a collaborative approach



towards sustainable development.

The MoU will also embark upon helping in setting up a robust and vibrant innovation-driven technology development ecosystem in the areas of mutual interest.

# MoU Signing with Punjab Municipal Infrastructure Development Company

IIT Ropar signed an MoU with Punjab Municipal Infrastructure Development Company (PMIDC) to enhance institutional partnerships for capacity building and training program at



Department of Local Government, Punjab. The academic partnership will foster innovations while piloting future technologies to address urban infrastructure challenges, making cities sustainable and resilient.

# MoU Singing with Applied Materials

IIT Ropar and Applied Materials solidified their partnership by signing a three-year agreement for the CoE in Thermal Spray Coatings at IIT Ropar. This initiative will provide a



platform for IIT Ropar's faculty and students to engage in cutting-edge research, addressing real-world challenges and exploring innovative applications for materials of critical importance to the semiconductor industry.

The institute received funding from the Department of Science and Technology (DST) under its Advanced Manufacturing Technologies (AMT) program, along with co-funding from Applied Materials India and Metallizing Equipment Company Private Limited India, to establish a Centre of Excellence (CoE) in Thermal Spray Coatings.

# MoU Singing with Omega Seiki Mobility & ARES Systems

IIT Ropar and Omega Seiki Mobility & ARES Systems have joined hands to create a framework for hydrogen technologies for generation, storage, delivery and mobility applications. Under this



cooperation, IIT Ropar shall provide technical support for testing and evaluation of hydrogen fuel-cell kits and vehicles, and support for certification of kits as per Indian standards.

# MoU Singing with Samsung Electronics, R&D, Noida

Team from Samsung Electronics, R&D, Noida visited IIT Roparto explore c o I I a b o r a t i o n s opportunity at a deeper level across different Departments with focus on Machine Learning, Data Science and Digital



Health etc. Currently, the center for Applied Research in Data Sciences is engaged in providing a certification program in deep learning and computer vision to the engineers of Samsung.

# MoU Signing with Punjab Energy Development Agency - PEDA

IIT Ropar and Punjab Energy Development Agency (PEDA) joined hands to sign up an important MoU in the presence of Punjab New &



Renewable Energy Sources Minister. The goal is to make Punjab the front runner state in production of clean and green energy and to setup Centre of Excellence (CoE) for Emobility in the presence of Aman Arora, Member of the Punjab Legislative Assembly. The MoU was signed by the Director of IIT Ropar, Prof. Rajeev Ahuja and the Chief Executive Officer of PEDA, Dr. Ravi Bhagat at Punjab Civil Secretariat-1. A 1MW Agri-PV Project will be set up at IIT Ropar Campus to undertake activities for Green Hydrogen Production.





#### MoU Signing with the Five Universities

The Five Central Universities of North India viz. Central University of Jammu, Central University of Haryana, Central University of Himachal Pradesh, Central University of Punjab,



Central University of Rajasthan and IIT Ropar, signed an MoU to establish Consortium of Higher Educational Institutions of North India (CHEINI) to upscale the implementation of educational reforms. The signing of the MoU took place in Delhi on the occasion of the 3rd anniversary of NEP in the presence of the Hon'ble Union Education Minister Shri Dharmendra Pradhan, the Hon'ble Minister of State for Education Shri Subhas Sarkar and Shri K Sanjay Murthy, Secretary, Higher Education.

# MoU Signing with the Ordnance Factory, Chandigarh (OFCd)

An MoU was executed on the eve of the 77th Independence Day, between IIT Ropar and the Ordnance Factory, Chandigarh (OFCd), a Unit of India Optel Limited, Department of Defence



Production, Ministry of Defence. OFCd is engaged in the design, development and manufacture of defense systems such as day vision optical devices for armored vehicles, communication cables and various types of cable harness for armored vehicles. It is also involved in defense-related R&D for new products based on AI/ML, and other emerging technologies.

Prof. Rajeev Ahuja, Director, IIT Ropar expressed that such industry-academia association in aerospace and defense manufacturing, will not only help IIT Ropar startups but also regional MSMEs to engage closely with the extended defense/security ecosystem. Shri Dushyant Kumar, General Manager, OFCd stated that he is excited to associate with IIT Ropar, an institute of technical excellence with expertise in advanced materials, AI/ML and data analytics amongst others. He has invited faculty and students of IIT Ropar to engage with OFCd on various projects.

# **Research And Inovations**

Dr. Srivatsava Naidu, Assistant Professor, Department of Biomedical Engineering at IIT Ropar and his team were granted of Patent- titled "Method of synthesis of cellulose 2,3 Diamino Halamine". Dr. Naidu's research area is to understand



the role of ncRNAs in the regulation of Pol transcription machinery and exploit them for therapeutic targeting of rRNA synthesis.

Dr. Patel Amit Rajnikant, Dr. Prabir Sarkar, Dr. Himanshu Tyagi and Prof. Harpreet Singh have been granted of joint patent title: A method for determining a single emission discounting rate for process involving environmental issues.



This patent would be beneficial to assess the long term effect of a particular amount of emission added to the atmosphere, to develop prediction models, policy development and to mitigate emissions.

Dr. Prabhat K Agnihotri has been granted of the Patent titled "Synthesis of Vertically Aligned Multilayer Graphene Sheets on Different Substrates Using Edible or Non-Edible Oils". The patent is related to the development of processing route to convert edible/nonedible oils to useful carbon allotropes like graphene, rGO. It will be helpful in converting



oils waste into financially and technologically useful products.



# Awards And Recognitions

 Dr. Samaresh Bardhan (Indian PI), Associate Professor, Department of Humanities and Social Sciences at IIT Ropar was awarded a research grant (provisional grant value of Rs. 79.90 Lakhs) under the Scheme of Promotion of Academic and Research Collaboration (SPARC)

Prajulalam



for the research project titled "Strategic Asset Allocation Choices for India's National Pension System", in collaboration with Prof. Anup Basu (Foreign PI), Prof. Adam Clement (foreign Co-PI),School of Economics and Finance, Queensland University of Technology, Australia and Prof. Paramita Mukherjee (India Co-PI), Narsee Monjee Institute of Management, Hyderabad.

IIT Ropar 'Brain Breakers' team has been awarded the 'Cause Changemaker Award - Inclusive Solution' based on their Idea 'PUcoustics'



at Cause 2023, mentored by Dr. Khushboo Rakha.

Mr. Piyush Pratap Singh, Research Scholar, Department of Chemical Engineering at IIT Ropar was awarded first prize for giving Innovative Ideas on the theme of Energy Conservation & Energy Efficiency organised by



Punjab Energy Development Agency in association with Ministry of Power, Govt. of India.

Ms. Richa Ranjan, Research Scholar, Department of Chemical Engineering, IIT Ropar received the "Best Poster" presentation award at the 4th National Conference on Advances in Chemical Engineering and Science organized by the Department of Chemical Engineering, IISER Bhopal, India.



Ms. Rasleen Kaur, PhD student of Philosophy in the Department of HSS, IIT Ropar won the SPT Graduate Student Paper Award for her paper titled "Charkha: Focal thing, Appropriate Technology and Wheel of Self-



reliance" presented in the Society for Philosophy of Technology Biennial Conference held in Tokyo, Japan during June 7-10, 2023.

IIT Ropar's two students Mr. Mohit Mahala, Department of Civil Engineering and Mr. Upendra Kumar, Department of Electrical Engineering have been selected for the Taiwan Scholarship Program 2023. Mr. Mohit Mahala chose Civil Engineering



in NTUST (National Taipei University of Science and Technology) while Mr. Upendra Kumar opted for IMBA in Donghua University. The Taiwan Scholarship Program encourages outstanding South Asian students in taking up postgraduate studies in Taiwan by awarding each recipient a stipend of NTD 20,000 per month.

 Dr. Monika Gupta, Ramanujan Fellow, Department of Chemistry, IIT Ropar has been awarded the Women Involvement in Science and Engineering



Research (WISER) grant by Indo German Science And Technology Centre (IGSTC).

Dr. Akrati Saxena, An Alumni of IIT Ropar (PhD. 2018, CSE Department) joined as Assistant Professor at Leiden University, Netherlands.





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 Dr. Atharva Poundarik, Assistant Professor, Department of Biomedical Engineering and Metallurgical & Materials Engineering at IIT Ropar has been selected for the prestigious SERB-Technology Translation Award (SERB-TETRA).



He is one of the 9 successful PIs, selected from across the Nation, for his novel project titled "An osteo-adhesive composition, material and method for preparation thereof". The award will fund further development and translation of adhesive formulations for treating bone fractures.

Mr. Vasu Dev, PhD S c h o l a r i n t h e Department of Physics, IIT Ropar, has received t h e B e s t O r a l Presentation Award. He presented his research work in one of the



biggest and most prestigious international conferences: PHOTONICS 2023 in India. It was organized by Indian Institute of Science (IISc) Bangalore.

 Dr. Neha Sardana, Assistant Professor, Department of Metallurgical and Materials Engineering, IIT Ropar has been selected as one of the 15 recipients of the Indian National Academy of Engineering (INAE) Young Associate award for 2023. The a ward recognizes



outstanding achievements and contributions made by young engineers with strong potential for future professional growth and impact in any branch of engineering.

Dr. Yashasvi Bansal (Ph.D), Department of Electrical Engineering, IIT Ropar has joined IIT Delhi as Assistant Professor in the Department of Electrical Engineering



# Awadh – Techonoly Innovation Hub

Technology and Innovation Foundation (TIF) - AWaDH is an initiative of IIT Ropar supported by the Department of Science & Technology, Government of India, in the framework of a National Mission on Interdisciplinary Cyber-Physical Systems, having sector focus for technology development, human resource development, deep tech startups and innovations on Agri, Water, IoT, ICPS and Sustainability.

#### Launch of SPRINT & SAMRIDHI Shri Gajendra Singh Shekhawat ji, our Honourable Minister of Jal Shakti

The Institute hosted Shri G a j e n d r a S i n g h Shekhawat ji, Hon'ble Minister, Ministry of Jal Shakti, Department of Water Resources, RD & GR, Govt. of India hosted by iHub – AWaDH, IIT Ropar.



SPRINT: Strategic Program for Research Innovation and Next-Gen Tech- Commercialisation

SAMRIDHI: Strategic Acceleration for 'Market, Research, Innovation & Development: a Holistic Initiative for ICPS Startups.

#### 2nd Workshop on Technology Innovation in Cyber-Physical Systems (#TIPS 2.0) (06-08 April, 2023)

The event was inaugurated by Prof. Rangan Banerjee, Director, IIT Delhi, Dr. Akhilesh Gupta, Sr. Adviser, DST & Secretary (SERB) Dr. Kris Gopalakrishnan,



Chairman, Axilor Ventures, Co Founder, Infosys and Dr. Vivek Saraswat, Hon'ble Member (S&T), NITI Aayog.

iHub – AWaDH, IIT Ropar presented its key technologies Bovine Tracker Biodiversity Sensor Syngenta Group IoT Lab developed and supports through AWaDH in



technological domains of Agriculture and Water Technology. The startup UBreathe supported by iHub – AWaDH, IIT Ropar displayed its products UBreatheMini and UBreatheLife, unique products for improving the quality of air that we breathe.





#### International Conference on "Agricultural-Centric Computation-ICA23"

iHub – AWaDH, IIT Ropar organized an International Conference on "Agricultural-Centric Computation -ICA23" at the IIT Ropar, May 11-13, 2023. This three-day conference brought together experts around the world to discuss the intersection of agriculture and computation. The conference featured keynote speeches from renowned guests, to name a few, Prof. (Dr.) AbdulEl Saddik from the University Of Ottawa, Canada, and Prof. (Dr.) Athula Ginige from Western Sydney University. The speakers shared their insights into the latest developments in the agriculture industry.

#### • A 3-day International conference on "Emergent Converging Technologies and Biomedical System" held at Jaypee Institute of Information Technology, Waknaghat, Himachal Pradesh.

The conference was jointly organized by JUIT – Solan and iHub – AWaDH, IIT Ropar, to stimulate ideas and promote innovation ecosystem.



#### World Telecom Day (May 17) Celebrations

iHub – AWaDH, IIT Ropar celebrated & attended World Telecom Day and Foundation Day of Universal Service Obligation Fund (USOF), Department of Telecommunications (DOT) at New Delhi.



#### **Panel Discussion**

A panel discussion on Agri Tech, IP and ICPS: driving the Potential of Innovation and Entrepreneurship with the expert was hosted by AWaDH on April 24, 2023, virtually.



#### The panellists were:

- Vamsi Udayagiri , Founder & CEO, Hesa
- Dr. Hemang Shah, India Engineering Lead (Director), Qualcomm
- Saurabh Trivedi, Founder IP Samadhan and Partner Agility Venture
- The session gave insights into the startup Journey of the founders, Identifying ground problems and looking for solutions approach, tips for raising funding across the journey of start-ups and importance of collaborative support at every phase of startup growth.
- Panel Discussion on Enabling the Agri-ICPS Domain: Harvesting Growth: Unveiling the Agri-Water & Cyber Physical Systems



Startup Frontier through Investment Opportunities on June 27, 2023, was held virtually.

#### • The panellists were:

- Kiran Vuppala, Head of Operations at MSMF-TBI (Mazumdar ShawMedical Foundation-TBI)
- Balaji Ayyangar, Lead Architect at Trikon
- Durga Prasad Gouda, COO of AIC-Nalanda Institute of Technology Foundation
- Neera Inamdar, Co-founder of investment platforms GREX and RealX

#### Trainings

International Training and Internship Program by IIT Ropar, iHUB AWaDH IIT Ropar TIF was hosted in collaboration with Energy Mentor, USA





# Technology Business Incubator Foundation

**1. Launched a cohort program:** TBIF, in collaboration with the Wadhwani Entrepreneur Network (NEN), launched a 14-week cohort program for early-stage startups with a wide range of ideas.

Prajulalam



#### 2. Participated at the Confederation of Indian Industry

(CII) Exhibition: At the Confederation of Indian Industry (CII) Headquarters in Chandigarh, a session and a vendor meet on "Creating a Robust Defence Manufacturing Ecosystem" were organized by the Confederation of Indian Industry (CII) and HQ Western Command in association with DRDO, Ministry of Defence, Govt. of India, Terminal Ballistics Research Laboratory, the Base Repair Depot of the Air Force, and HQ Northern Command. The objective of the vendor meeting





was to develop new vendors as well as widen the product range of existing vendors, supplying them to Defence establishments. TBIF incubatee startups got the opportunity to showcase their products at the vendor meet.

#### 3. Awareness session by Startup Punjab: An awareness

session for startups was conducted by Startup Punjab at the IIT Ropar Technology Business Incubator Foundation to create awareness for the grants and incentives offered by Startup Punjab through TBIF.



4. Appointment of the new E-Cell team: TBIF bade a fond

farewell to the talented individuals of E-Cell IIT ROPAR and appointed Aditya Jain (B.Tech Mathematics and Computing, 4th year) as the President E-Cell and N i s h i k a N a k k a (B.Tech Mechanical, 3rd year) as the Vice President.



#### 5. Participated in the G20 3rd Working Group Meet at

**H y d e r a b a d :** T B I F participated in the 3rd Health Working Group Meeting's exposition on Research and Development of Therapeutics, Vaccines, and Diagnostics, which took



place from June 4th to 6th at the G20 Hyderabad International Convention Centre.

6. Residential bootcamp on Entrepreneurship

**Development:** A visit to IIT Ropar Technology Business Incubator Foundation by students participating in the residential bootcamp on Entrepreneurship development was organized by ERDC



(Entrepreneurship & Rural Development Centre) of NITTTR Chandigarh, Ministry of HRD, Govt. of India. Nearly 124 students from the states of Punjab, Himachal Pradesh, Haryana, and Uttarakhand participated. During this residential camp, a pitch session was conducted, in which TBIF participated.

#### 7. Startup Awareness

**Program:** TBIF, in association with the Baba Farid School of Entrepreneurship (BFSoE), organized a five-day online "Startup Awareness Program" from June 26th to June 30th, 2023.



#### 8. Dr. Atharva Poundarik,

Faculty in-Charge, IIT Ropar TBIF, delivered an insightful session on "Nurturing Startups in a Higher education Institute: Opportunities and Challenges "at National Symposium organized by IIC and CU Panjab



Research and Development Foundation. The session was attended by several startups & innovators from across the region.

**9.** IIT Ropar TBIF organized an introductory session on "Microsoft for startup", on August 28, 2023. During this session Ms. Shweta Suresh Khinnavar was explained the benefits of Microsoft a startup can avail through incubator.







# Industrial Research & Development

Sponsored Projects & Consultancy Jobs Undertaken through R&D section during April-August 2023

- 22 Sponsored Projects with a total sanctioned value of Rs. 10.50 Cr
- 70 External Consultancy Projects with a total sanctioned value of Rs. 2.08 C



# Infrastructure Development

The internal and external work of Super Academic Block has been completed. The Super Academic Block is the largest building of the Phase I of IIT Ropar. Two departments have been shifted and shifting of the other departments is under process.





# International Relations & Alumni Affairs

# Summer Research Internship Programme 2023 for International Students Studying in India

IIT Ropar's International Relations Office introduced a S u m m e r R e s e a r c h Internship



Programme exclusively for international students studying in India. This program aimed to attract motivated individuals from neighboring and affiliated institutions, fostering collaboration and knowledge exchange. Undergraduate and master's students now have the opportunity to engage in cutting-edge research projects under the guidance of IIT Ropar's faculty, gaining exposure to advanced laboratories.

# MoU with University of La Rochelle, France, Russia's Tomsk State University, and Siberian State Medical University (SibMed)

The MoU signed in August 2023 between IIT Ropar and the University of La Rochelle, France, is a significant stride towards fostering international academic collaboration. This agreement reflects the commitment of both institutions to exchange knowledge and expertise in various fields. It opens doors for joint research endeavors, faculty and student exchanges, and cross-cultural learning opportunities. Such partnerships often lead to groundbreaking research and innovation while enriching the academic experience for students and researchers.



The MoU holds the potential to enhance the global reputation of both IIT Ropar and the University of La Rochelle, creating a dynamic platform for future academic and scientific advancements.

# International Students Admissions for the Academic Year 2023-24

IIT Ropar warmly welcomes fifteen international students to our esteemed Masters and PhD programs for the Academic year 2023-24. Our unwavering commitment to a diverse global academic community values the unique perspectives international students bring, enriching our cultural diversity and enhancing academic discourse.

Dedicated to research and educational excellence, our institute attracts scholars worldwide, fostering cross-cultural learning and collaborative research. Together, we'll shape a brighter future through innovation and academic excellence.

# Accreditation from the Ministry of Higher Education and Scientific Research of Iraq

The Iraqi Embassy's Cultural Attache communicated about accreditation granted to IIT Ropar for admission of Iraqi students from the Ministry of Higher Education and Scientific Research of Iraq. Iraqi students are now eligible to enroll at IIT Ropar from the academic year 2023-24.

# List of Visitors:

Professor Srinivas (Srini) Sampalli, Faculty of Computer Science, Dalhousie University visited IIT Ropar on 4th August 2023. During his visit he interacted with faculty and students of the Computer Science department and International Relations office team.

Dr. Brij B. Gupta Department of Computer Science and

Information Engineering, Asia University, Taiwan visited IIT Ropar in the Month of July 2023. Dr. Nitin Auluck, IIT Ropar and Dr. Brij B. Gupta, Asia University are working on a Indo-Taiwan project namely "Developing a Distributed, Fog Computing-based Security System for IoT Networks using AI/ML Techniques". During his visit he had a meeting with the Dean, International Relations and discussed the possible ways to collaborate with Asia University, Taiwan.

# Visit of Dr. Nitin Auluck and Dr. Sudeepta Mishra to Dalhousie University Canada

Dr. Nitin Auluck and Dr. Sudeepta Mishra from CSE Department visited Dalhousie University Canada during July 7-18, 2023. The purpose of the visit was to collaborate with faculty members, Dalhousie University and explore areas of potential joint research. This visit was financially supported by Dalhousie University.

# Award - DAAD KOSPIE

It is delightful to share that one of our students (Mr. Mebin Muhammed HS, Entry No. 2022eem1003) has been selected for the Combined Study and Practice Stays for Engineers from Developing Countries (KOSPIE) with Indian IITs, 2023 (57655003) programme. Through this programme he will be visiting RWTH Aachen, Germany for the duration of one year and he will get a Scholarship of 934.00 EUR /month and separate study allowance and travel allowance.





# राजभाषा गतिविधियाँ

● दिनांक 15 जून 2023 को आनलाइन हिंदी कार्यशाला का आयोजन

राजभाषा विभाग, गृह मंत्रालय, भारत सरकार के दिशा-निर्देशों के अनुपालन में हिंदी प्रकोष्ठ, भा.प्रौ.सं. रोपड़ ने अप्रैल-जून 2023 तिमाही के दौरान हिंदी कार्यशाला का आयोजन संपन्न किया। संस्थान का हिंदी प्रकोष्ठ प्रति तिमाही एक कार्यशाला का आयोजन संपन्न करता आ रहा है। इसी क्रम में, दिनांक 15 जून 2023 को आनलाइन माध्यम से हिंदी कार्यशाला का आयोजन किया गया। इस कार्यशाला का



उद्देश्य संस्थान सदस्यों को तकनीक के साथ हिंदी में कार्य करने में निपुण बनाना था ।

उपर्युक्त उद्देश्य की पूर्ति हेतु संस्थान सदस्यो का मार्गदर्शन करने हेतु श्री राजेन्द्र प्रसाद वर्मा, सहायक निदेशक, भारत सरकार, गृह मंत्रालय, राजभाषा विभाग, हिंदी शिक्षण योजना पुणे (महाराष्ट्र) को विशेष रूप से आमंत्रित किया गया था। श्री धमेंद्र कुमार, सहायक निदेशक ने राजभाषा के नियम और अधिनियम की संक्षिप्त जानकारी देते हुए नोटिंग-कार्य के संबंध में राजभाषा विभाग द्वारा निर्धारित प्रतिशत की जानकारी दी। साथ ही, सरकारी कामकाज में नोटिंग ड्राफ्टिंग के निर्धारित प्रतिशत का अनुगमन करते हुए किस प्रकार तकनीक के माध्यम से हम कम से कम समय एवं श्रम में नोटिंग ड्राफ्टिंग कर सकते है, इस पर सभी का मार्गदर्शन किया। इस कार्यशाला में संस्थान के कर्मचारियों के साथ-साथ नराकास रूपनगर के सदस्य कार्यालयों के सदस्यों ने भी बढ़-चढ़ कर अपनी सहभागिता दर्ज की।

इस कार्यशाला के आरंभिक चरण में, संस्थान के हिंदी अनुवादक डॉ. गिरीश प्रमोदराव कठाणे ने औपचारिक स्वागत करते हुए श्री राजेन्द्र प्रसाद वर्मा जी का भारतीय प्रौद्योगिकी संस्थान की ओर से स्वागत एवं अभिवादन किया। साथ ही, नराकास रुपनगर के सदस्य कार्यालयों से सहभागी सदस्यों का भी स्वागत किया।

अपने मार्गदर्शन पर वक्तव्य में श्री राजेन्द्र प्रसाद वर्मा, सहायक निदेशक ने सभी के साथ कार्यशाला के विषय पर चर्चा की।

श्री राजेन्द्र प्रसाद वर्मा जी ने सभी को यह आग्रह किया कि सभी कर्मचारी सर्वप्रथम अपना कार्य मूल रुप से हिंदी में करना सुनिश्चित करें। आमंतित सहायक निदेशक जी ने यह बताया कि किसी भी सॉफ्टवेयर को डाउनलोड़ न करते हुए आप किस



प्रकार माइक्रोसॉफ्ट वर्ड में अनुवाद-कार्य, टंकण कार्य कर सकते है इसके विस्तृत जानकारी सभी के साथ साझा की। आमंत्रित वक्ता महोदय ने माइक्रोसॉफ्ट वर्ड के विभिन्न फीचर्स के बारे में सभी को अवगत कराया जिनसे वे अपना सरकारी कामकाज आसानी से कर सकते है। साथ ही, सभी को इनका अभ्यास भी कराया।

इस कार्यशाला के अंतिम चरण में, संस्थान के हिंदी अधिकारी श्री विपिन कुमार ने आमंत्रित वक्ता महोदय और संस्थान सदस्यों तथा नराकास रुपनगर के सदस्यों का इस कार्यशाला में सहभागी होकर इसे सफल बनाने हेतु सभी का धन्यवाद किया।

#### 🕒 नराकास रुपनगर की अर्धवार्षिक बैठक

दिनांक 26 मई, 2023 को नराकास रुपनगर की अर्धवार्षिक बैठक संपन्न हुई। इस बैठक में श्री कुमार पाल शर्मा, उपनिदेशक, राजभाषा विभाग, गृह मंतालय, भारत सरकार, नई दिल्ली विशेष रुप से आमंत्रित थे। इस बैठक में नराकास रुपनगर के सभी सदस्य कार्यालयों के कार्यालय प्रमुखों तथा राजभाषा कर्मियों ने अपनी उपस्थिति दर्ज की। भारतीय प्रौद्योगिकी संस्थान रोपड़ से आचार्य नवीन कुमार (निदेशक महोदय द्वारा नामित), डॉ. हिमांशु त्यागी (संकाय प्रभारी हिंदी के स्थान पर), डॉ. दिनेश के. एस. (कार्यवाहक कुलसचिव), श्री विपिन कुमार (हिंदी अधिकारी/सहायक कुलसचिव) तथा डॉ. गिरीश प्रमोदराव कठाणे (हिंदी अनुवादक) ने संस्थान की ओर से अपनी उपस्थिति दर्ज की। इस बैठक में श्री कुमार पाल शर्मा, उपनिदेशक, राजभाषा विभाग, गृह मंत्रालय द्वारा नराकास रुपनगर की सभी सदस्य कार्यालयों की अर्धवार्षिक रिपोर्ट की विस्तृत समीक्षा की गई ।

#### • राजभाषा ज्ञान प्रतियोगिता के विजेता पुरस्कृत

दिनांक 10 जनवरी, 2023 को यूको बैंक द्वारा नगर राजभाषा कार्यान्वयन समिति रुपनगर के सभी सदस्य कार्यालयों के आयोजित आनलाइन राजभाषा ज्ञान प्रतियोगिता में भा.प्रौ.सं. रोपड़ के तीन सदस्य सुश्री पूजा पाण्डेय, सुश्री समिता सैनी तथा श्री देवेन्द्र कुमार ने सहभागिता सुनिश्चित की थी।

दिनांक 26 मई 2023 को संपन्न नराकास रूपनगर की अर्धवार्षिक बैठक में राजभाषा ज्ञान प्रतियोगिता के विजेताओं को पुरस्कृत किया गया।



भारतीय प्रौद्योगिकी संस्थान रोपड़ के श्री देवेन्द्र कुमार को इस प्रतियोगिता हेतु द्वितीय पुरस्कार प्रदान किया गया ।

#### हिंदी गीत गायन प्रतियोगिता के विजेता पुरस्कृत

दिनांक 06 मार्च, 2023 को होली के पावन अवसर पर भारतीय प्रौद्योगिकी संस्थान द्वारा नगर राजभाषा कार्यान्वयन समिति रुपनगर के सभी सदस्य कार्यालयों के आयोजित आनलाइन हिंदी गीत गायन प्रतियोगिता में भा.प्रौ.सं. रोपड़ के दो सदस्य श्री विपिन कुमार और डॉ. तरविंदर सिंह हांडा ने सहभागिता सुनिश्चित की थी।



दिनांक 26 मई 2023 को संपन्न नराकास रूपनगर की अर्धवार्षिक बैठक में हिंदी गीत गायन प्रतियोगिता के विजेताओं को पुरस्कृत किया गया।

भारतीय प्रौद्योगिकी संस्थान रोपड़ के श्री विपिन कुमार को इस प्रतियोगिता हेतु द्वितीय पुरस्कार प्रदान किया गया ।

#### उत्तरी क्षेत्नीय कार्यान्वयन कार्यालय द्वारा संस्थान का राजभाषा निरीक्षण

श्री कुमार पाल शर्मा, उप निदेशक, राजभाषा विभाग, गृह मंत्रालय, भारत सरकार, नई दिल्ली द्वारा दिनांक 26 मई 2023 को भारतीय प्रौद्योगिकी संस्थान रोपड़ का राजभाषा निरीक्षण संपन्न हुआ। उपनिदेशक, राजभाषा विभाग, गृह मंत्रालय ने निरीक्षण के दौरान संस्थान के विभिन्न विभागों, अनुभागों का दौरा किया और राजभाषा में किए जा रहे कार्यों की समीक्षा की तथा सभा का मार्गदर्शन भी किया।



श्री कुमार पाल शर्मा जी ने निरीक्षण के दौरान संस्थान द्वारा किए जा रहे कुछ कार्यों की अत्यंत सराहना की और आशा व्यक्त की कि संस्थान भविष्य में इन कार्यों को ओर आगे ले जाएगा।







# Faculty Joined Between April To August 2023



Dr. Danveer Singh Assistant Professor Gr. I Physics 11.05.2023



Dr. Manmohan Vashisth Assistant Professor Gr. I Mathematics 28.06.2023



Dr. Deepak Singh Assistant Professor G-II Mathematics 22.05.2023

Assistant Professor Gr. I

Physics

31.07.2023



Dr. Hari Vansh Rai Mittal Assistant Professor Gr. I Mathematics 12.06.2023



Dr.Vivekanand Shukla Assistant Professor Gr. I Physics 16.06.2023



Dr. Ritu Gupta Assistant Professor Gr. I Physics 16.06.2023



Dr. Sukrit Gup



Dr. Sukrit Gupta Assistant Professor (On Contract) Computer Science andEngineering 23.08.2023



Dr. Abhinandan S Prasad Assistant Professor (On Contract) Computer Science and Engineering 25.08.2023

# Non-Teaching Staff Joined/Promoted During April-August 2023



Ms. Gargi Assistant Student Counsellor (on Contract) Counselling Cell 27.04.2023 (A/N)



Ms. Ritika Library Professional Trainee (on Contract) Library 21.08.2023



Sh. Rishabh Kumar Library Professional Trainee (on Contract) Library 24.08.2023

# **Through Promotion (LDE)**



Ms. Rubal Batta Senior Assistant Academics 04.05.2023 (A/N)



# **IIT Ropar On Social Media**

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- http://twitter.com/iitrpr
- https://www.instagram.com/iitropar/
- in https://www.linkedin.com/company/iitropar
- https://www.researchgate.net/profle/Iit\_Ropar
- https://www.youtube.com/channel/iitropar

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