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भा. प्रौ. सं. धारवाड
IIT DHARWAD

INDIAN INSTITUTE OF
TECHNOLOGY DHARWAD

NEWSLETTER

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ATC-III NCC Camp Organized by IIT dhArwAD

Shaping Cadets, Serving the Nation.



ATC-III NCC Camp Organized by IIT dhArwAD (19th May – 28th May 2025)

SAMBANDH NEWSLETTER

Indian Institute of Technology dhArwAD successfully organized the Annual Training Camp (ATC-III) under the aegis of 24 Karnataka Battalion NCC from 19th May to 28th May 2025. The camp witnessed enthusiastic participation from 589 cadets hailing from various NCC units across Hubli and dhArwAD.

Throughout the 10-day camp, a variety of training sessions and activities were conducted with a focus on physical fitness, discipline, and personality development. Key activities included:

- **Drill and Parade Practice:** Daily drill sessions were conducted to instill discipline and improve coordination among cadets. Cadets practised formal parade sequences under the supervision of trained NCC instructors.
- **First Aid Training:** Basic and advanced first aid skills were taught, equipping cadets with the knowledge to respond effectively during medical emergencies.
- **Special Lectures:** Motivational talks and informative sessions were conducted on topics such as career opportunities in the Indian Armed Forces, helping cadets understand pathways to join the Army, Navy, and Air Force.
- **Map Reading:** Practical sessions on map reading and navigation skills were organized, enhancing cadets' understanding of topography and direction-finding.
- **Rifle Shooting:** Cadets were given hands-on experience with rifle shooting to develop focus, aim, and confidence under expert guidance.
- **Cultural Activities:** Evening cultural events provided a platform for cadets to showcase their talents in music, dance, and drama, promoting unity and creativity.

One of the highlights of the camp was the celebration of Tiranga March (Flag March) by IIT dhArwAD cadets, symbolising national pride and unity.

On the final day of the camp, the 24 KAR Battalion NCC organized several inter-unit competitions including:

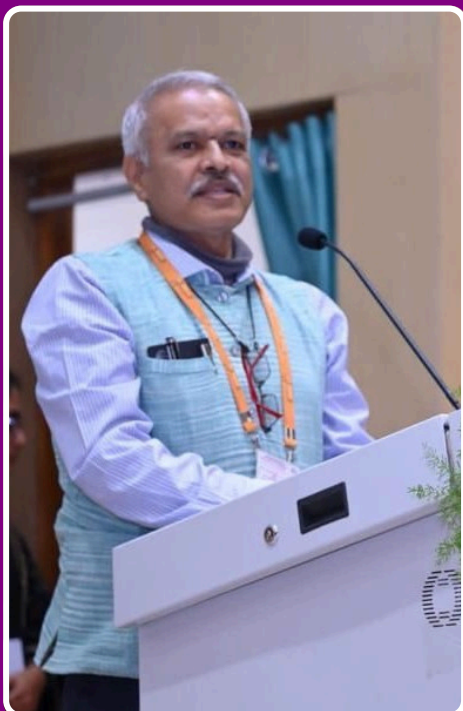
- March Past Competition
- Guard of Honour Competition
- Sports Competitions (including athletics and team sports)

These events encouraged healthy competition among the participating units and showcased the training outcomes of the cadets.

The camp not only strengthened the spirit of unity and discipline among young cadets but also provided a comprehensive learning experience blending physical training, knowledge, and cultural expression. IIT dhArwAD's contribution in hosting such a large-scale and impactful NCC camp was well appreciated by all stakeholders.



Director's Major Engagements



PROF. Venkappayya R. Desai, Director, IIT dhArwAD, welcomed new Associate Professors in the Departments of Physics and MMAE on 1st April 2025. On 11th April 2025, he spearheaded two significant collaborations by signing Memoranda of Understanding (MoUs) with the Indian Institute of Science (IISc), Bengaluru, and the Central Power Research Institute (CPRI), Bengaluru. Continuing his engagements, on 12th April 2025, Prof. Desai graced the Postgraduate Graduation Day of Vidya Vardhaka College of Engineering (VVCE), Mysuru, as the Chief Guest, where he addressed the graduating class.

On 19th April 2025, he was invited to Gogte PU College, Belagavi, for the Felicitation Ceremony of Rank Holders. He delivered a talk on "Holistic Environmental Education for Accomplishing Sustainable Development Goals (SDGs)" at NIT Pondicherry on 23rd April 2025. Furthering the institute's academic partnerships, Prof. Desai led the MoU signing ceremony between IIT dhArwAD and the National Centre for Biological Sciences (NCBS), Bengaluru on 29th May 2025. He addressed the Talent Award Ceremony held at Karnataka College, dhArwAD.



A research publication by the Quantum Light-Matter Dynamics Group, Dept. of Chemistry, has been featured on the front cover of The Journal of Physical Chemistry A (ACS Publications, June 12, 2025 issue). Read the article : <https://pubs.acs.org/toc/jpcfh/129/23>



Prof. Ramesh Nayaka



Prof. Rahul Pandya

Prof. Ramesh Nayaka, Dept. of CIE and Prof. Rahul Pandya, Dept. of EECE, have been awarded the prestigious Paired Early Career Fellowship in Applied Research (PECFAR) by the Indo-German Science & Technology Centre (IGSTC).



Prof. Anand Konjengbam, Dept. of CSE, was invited as Chief Guest at Che'Tech 2025, the national-level technical fest organized by the MCA Department of Chetan Business School, Hubballi, on 13th May 2025. Addressing participants from over 22 colleges across dhArwAD, BeLagAvi, Vijayapura, and other regions, Prof. Konjengbam delivered an inspiring talk on the future of technology and student-led innovation.

(12) PATENT APPLICATION PUBLICATION	(21) Application No.202441098289 A
(19) INDIA	
(22) Date of filing of Application :12/12/2024	(43) Publication Date :20/12/2024
(54) Title of the invention : A power interface system for online transmission line inspection robots and method thereof	
(71)Name of Applicant : 1)Indian Institute of Technology Dharwad Address of Applicant: Permanent Campus, Chikkamalligwad Village Dharwad Karnataka India 580007 Dharwad Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Souvik Das Address of Applicant: AI-422, Engineering Block, Dept of Electrical Electronics and Communication Engineering, IIT Dharwad Permanent Campus Chikkamalligwad Village, Dharwad Karnataka India 580007 Dharwad 2)Dr. Abhijit Kshirsagar Address of Applicant: AI-422, Engineering Block, Dept of Electrical Electronics and Communication Engineering, IIT Dharwad Permanent Campus Chikkamalligwad Village, Dharwad Karnataka India 580007 Dharwad 3)Dr. Pratyasa Bhui Address of Applicant: AI-422, Engineering Block, Dept of Electrical Electronics and Communication Engineering, IIT Dharwad Permanent Campus Chikkamalligwad Village, Dharwad Karnataka India 580007 Dharwad	
(51) International classification H02G1/02, B25J19/00, B25J9/06, B25J9/12, H02J50/12, G01R31/08	
(86) International Application No	NA
(87) International Publication No	NA
(61) Patent of Addition to	NA
Application Number	NA
(62) Divisional to Application	NA
Number	NA
Filing Date	NA
(57) Abstract: (0067) The present invention discloses a power interface system for an online transmission line inspection robot and the corresponding method. The system (100)	

An Indian Patent (Application No. 202441098289) titled “A Power Interface System for Online Transmission Line Inspection Robots and Method Thereof” has been published, marking a significant innovation milestone for IIT dhArwAD. The patent has been filed by Mr. Souvik Das, Prof. Abhijit Kshirsagar, and PProf. Pratyasa Bhui, Dept. of EECE. The system enables real-time power harvesting for transmission line inspection robots through a novel split-core transformer design, allowing efficient energy capture from live lines while adapting to bypass obstacles seamlessly.

(12) PATENT APPLICATION PUBLICATION	(21) Application No.202511040970 A
(19) INDIA	
(22) Date of filing of Application :28/04/2025	(43) Publication Date :16/05/2025
(54) Title of the invention : TITANIUM DIOXIDE (TiO2) NANOPARTICLE-ENHANCED FORMALIN FIXATIVE TO REDUCE FORMALDEHYDE EVAPORATION AND MITIGATE ITS HARMFUL EFFECTS: A SAFER AND NOVEL METHOD OF TISSUE FIXATION IN MEDICAL LABORATORIES	
(71)Name of Applicant : 1)Dr. Monali Prakash Hiwarkar Address of Applicant :Assistant Professor, department of Anatomy, AIIMS Jammu 301, Type-6 quarters, All India Institute of Medical Sciences, Vijaypur, Jammu. Pin 184120. 2)Dr. Sonali Tajane 3)Dr. Onjal K. Taywade 4)Dr. Pravin Tajane Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Monali Prakash Hiwarkar Address of Applicant :Assistant Professor, department of Anatomy, AIIMS Jammu 301, Type-6 quarters, All India Institute of Medical Sciences, Vijaypur, Jammu. Pin 184120. 2)Dr. Sonali Tajane Address of Applicant :Assistant Professor, Department of Chemical Engineering, VNIT, Ambarner road, Nagpur, Maharashtra 3)Dr. Onjal K. Taywade Address of Applicant :Additional Professor, department of Biochemistry, AIIMS Jammu 301, Type-6 quarters, All India Institute of Medical Sciences, Vijaypur, Jammu. Pin 184120.	
(51) International classification G01N0001300000, A01N0001000000, A01N0001020000, A61K0031115000, A61P0011000000	
(86) International Application No	NA
(87) International Publication No	NA
(61) Patent of Addition to	NA
Application Number	NA

A team of researchers—Dr. Monali P. Hiwarkar, Dr. Sonali Tajane, Dr. Onjal K. Taywade, Dr. Nidhi Puri, Dr. Ravikumar C, Dr. Pravin Tajane, and Dr. Prashant Netankar—has achieved a milestone with the publication of their Indian patent application (Application No.: 202511040970 A, Date of Publication: 16 May 2025). The invention titled “TiO₂ nanoparticles enhanced formalin fixative to reduce formaldehyde evaporation and mitigate its harmful effects: A safer and novel method of tissue fixation in medical laboratories” proposes the integration of titanium dioxide nanoparticles into formalin fixatives to reduce toxic formaldehyde emissions.



PProf. Ravikumar C, Dept. of Chem.Engg, delivered an expert lecture during the 6th National Workshop on ‘Research Conception, Technique, and Publication (with Hands-on)’, organized by the Dept. of Chemical Engineering, Visvesvaraya National Institute of Technology (VNIT), NAGpur, from 13–17 May 2025.



PProf. Naveen Mysore Balasubramanya, Dept. of EECE, delivered a talk at the Institution of Engineers(India), dhArwAD chapter on account of the World Telecommunication and Information Society Day celebration held on 17th May 2025.



PProf. Dhriti Sundar Ghosh, Dept. of Physics, delivered a talk at the virtual Perovskites Innovation Day, organized by TechBlick on 4th April 2025. His presentation, titled “Kitchen-grade aluminium foil as a dual-

purpose substrate-cum-electrode for ultrathin, ultralight, and bendable perovskite solar cells,” highlighted novel developments in perovskite solar cell technology, focusing on flexible and lightweight device architectures for next-generation energy solutions.



Prof. Aniket Vasantrao Kataware, Dept. of CIE, was invited as Chief Guest at the 2nd International Conference on Multi-Disciplinary Research Trends in Engineering and Technology (ICMRTET 2025), held at Smt. Kamala & Sri Venkappa M. Agadi College of Engineering & Technology, lakSHmESHwar. He delivered a keynote address on multidisciplinary approaches in pavement engineering, highlighting integrated strategies for sustainable infrastructure development.



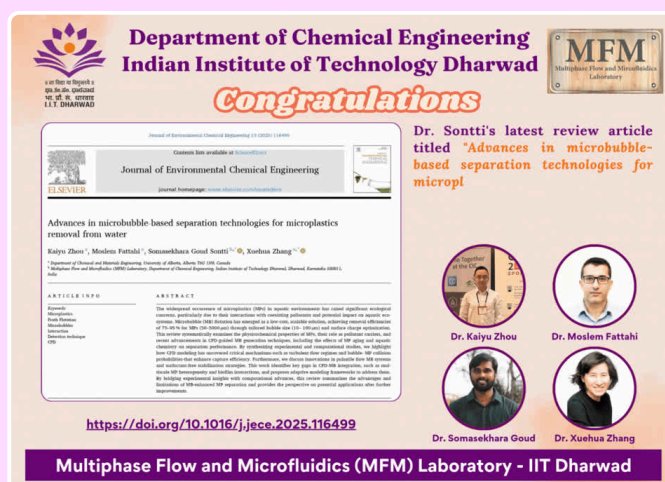
Prof. Ridhima Tewari, Dept. of HEART, has published a paper titled "Whither diasporas? Emerging issues and approaches in Indian diaspora studies" in South Asian Diaspora,

a Q1 journal published by Taylor & Francis/Routledge. She was also invited as a resource person for a five-day online Faculty Development Programme (FDP) on Interdisciplinary Research in English Literature and Language, organized by SRM University, AP. Her session, held on 28th March 2025, focused on philosophical interventions and feminist discourse, enriching the academic dialogue on interdisciplinary approaches in English Studies.



Two research proposals from IIT dhArwAD have been selected under the Indo-Italian Joint Call for Proposals, marking a significant step in strengthening international research collaboration.

Under the Joint Research Projects scheme: Prof. Animesh K. Sahoo, Dept. of EECE, has been selected as Principal Investigator
 PProf. Pratyasa Bhui, Dept. of EECE, has been selected as Co-Principal Investigator
 Under the Exchange of Researchers scheme: PProf. Koteswararao Kondepudi, Dept. of CSE, has been selected as Principal Investigator



Prof. Somasekhara Goud Sontti, Dept. of Chem.Engg, published a review article in the Journal of Environmental Chemical Engineering (Q1, IF: 7.4) on microbubble-based technologies, guided by CFD modeling, for sustainable microplastic removal from aquatic environments—marking a significant advancement in environmental remediation.
 DOI: <https://lnkd.in/dCNsw3CZ>



Prof. Kavita Devi, Dept. of Physics, delivered an invited talk on "Exploratory Design, Architecture and Properties of Continuous-Wave Optical Parametric Oscillators" on 17th April 2025 at the Centre for Nano Science and Engineering (CeNSE), Indian Institute of Science (IISc), Bengaluru.

Prof. Debalina Chakravarty, Dept. of HEART, was invited as a panelist at the international workshop “Institutionalizing Energy Innovations Towards Low-carbon Transformations? – Lessons from the Global South” on 25th June 2025, jointly organized by IDOS, INLOCADE, Universität Potsdam, TU Darmstadt, and DFG(i.e. German Research Foundation). She spoke on the political institutionalization of solar energy in India, emphasizing its role in promoting energy justice and socio-economic equity.

In another engagement, she delivered a webinar on “Research Ethics and Academic Awareness”, organized by the Department of Research, ARKA JAIN University, Jharkhand.



Prof. Ramesh Nayaka, Dept. of CIE, has co-authored impactful research on sustainable geopolymers using granite industry waste, in collaboration with NIT Warangal. The work has been published in journals such as Journal of Building Pathology and Rehabilitation, Journal of Material Cycles and Waste Management, and Engineering Research Express. He also presented his research on 3D concrete printing at APICAM 2025, RMIT University, Melbourne, Australia and served as Chief Guest at the Project Symposium – 2025, Tontadarya College of Engineering, Gadag, Karnataka.



Prof. P. Vigneshwara Raja, Dept. of EECE, delivered a technical talk titled “Gate-connected and Source-connected Field-plate Influences on Thermal Resistance of AlGaIn/GaN HEMTs” at the Symposium on Microelectronics and MEMS, held in honor of Prof. Amitava DasGupta at IIT Madras on 21st June 2025.



The paper titled “Bidirectional Hybrid DC Circuit Breaker With Zero Voltage and Current Switching for Radar Power System” has been awarded Second Place in the Best Paper Awards 2024 by the IEEE Open Journal of Industry Applications.

Authors: Nandkumar Saminathan, Aditya Pogulaguntla, Satish Naik Banavath, A. Lidozzi, M. Di Benedetto, and V. A

Journal Reference: IEEE Open Journal of Industry Applications, Vol. 5, pp. 224–234, 2024

DOI: 10.1109/OJIA.2024.3399603



Prof. Vijeth J Kotagi, Dept. of CSE, presented his research paper titled “Latency and Reliability Aware Reconfiguration of Network Slices in MEC-Enabled 6G Networks” at the prestigious 11th IEEE International Conference on Network Softwarization (NetSoft), held from 23rd to 27th June 2025 in Budapest, Hungary. The conference is a premier international forum for researchers and practitioners working on network softwarization, and Prof. Vijeth’s contribution was well received, highlighting novel approaches to dynamically reconfigure network slices in 6G systems.

Pro. Ameer Mulla, Dept. of EECE, participated in the Academia-Industry Interaction Meeting organized by FCRIT(Fr. Conceicao Rodrigues Institute of Technology), navi Mumbai, engaging with experts from industry, DRDO, TIFR, and other premier institutions. On 18th June 2025, he led an interactive session with FCRIT Faculty and students, encouraging collaboration on ongoing research at IIT dhArwAD. He also co-authored a paper titled “Dissipativity-based Decentralized Robust Output Feedback Control for Finite-time Boundedness of Uncertain Interconnected Systems”, published in IEEE Control Systems Letters, proposing a novel framework to enhance transient performance in uncertain, time-varying systems.



Prof. Aniket Vasantrao Kataware, Dept. of CIE, has made notable contributions in the field of sustainable materials and pavement technologies through a series of recent publications in reputed international journals. His research focuses on innovative approaches to enhance the performance and sustainability of construction materials. One of his studies, published in the Journal of Materials in Civil Engineering, explores the physical and mechanical properties of lignin-modified bitumen, highlighting its potential as a sustainable binder alternative.

Another article, featured in the European Journal of Environmental and Civil Engineering, evaluates the use of ceramic waste powder and crushed glass as partial replacements in concrete, contributing to waste valorization and sustainable construction. Additionally, a comprehensive review co-authored by Dr. Kataware in the International Journal of Pavement Research and Technology examines the influence of organic and inorganic phase change materials on asphalt binder and mix performance, emphasizing their role in improving pavement durability and energy efficiency.

Pro. Dhiraj V. Patil, Dept. of MMAE, was invited as the Chief Guest and Keynote Speaker at an event organized by BLDEA's Vachana Pitamaha Dr. P.G. Halakatti College of Engineering and Technology, Vijayapur. He delivered a talk on Sustainable Development Goals and participated in a group discussion on research methodology.



Total Donations Received Till March 2025 are ₹ 47,14,724

List of Donors to IIT dhArwAD
[During 1st April 2025 - 30st June 2025]

Sl.No.	Date	Donor's Name	Amount (₹)
1	15.04.2025	Prof. Konjengbam Anand	10,000

SPONSORED PROJECTS

Sl.No.	Principal Investigator With Dept	Co Principal investigator With Dept	Title of the Project	Sponsoring Agency	Sanction date	Value of Project (in lakh ₹)	Duration of the project (YY-MM)
1	Prof. Vigneshwara Raja P (EECE)	-	Thermal Resistance and Surface Donor Density of HEMT Investigated by Electrothermal I-V and DCT simulation studies	France	08.04.2025	4.63	02-00
2	Prof. Bal Krishna Chaube (BSBE)	-	The Endothelial ESM1/KLF2 Axis in Vascular Fluid Dynamics and Blood-Brain Barrier Remodeling during Brain Metastasis Niche Formation: Mechanistic and Therapeutic Insights	ANRF-PMECRG	06.06.2025	65.38	03-00
3	Prof. Subhash Mehto (BSBE)	-	Understanding the Role of Carabin in Intestinal Immune Response to Pathogenic Bacterial Infection	ANRF-PMECRG	06.06.2025	61.68	03-00
4	Prof. Veekesh Kumar (MATHS)	-	Diophantine approximation of algebraic numbers and its applications to transcendence and continued fraction expansions	ANRF-PMECRG	10.06.2025	30.84	03-00
5	PROF. Dileep A D (CSE)	Prof. Konjengbam Anand (CSE)	In Dyslexia Care: AI-based Assistive Technology for Dyslexic Children in Indic Languages	IIT Mandi iHub & HCI	17.04.2025	13.24	02-00
6	Prof. Konjengbam Anand (CSE)	-	Digital Preservation and Linguistic Technology Development of Manipuri Language Through Emerging Technologies	ANRF	06.06.2025	68.72	03-00
7	PROF. Amarnath Hegde (CIE)	-	Comprehensive Stability and Feasibility Analysis for the Stacking of Dry Zinc Mine Tailings at Rajpura Dariba mines	HZL	13.06.2025	28.64	01-00
8	Prof. Shashaank A Mattur (EECE)	-	AI Guided Yoga for Geriatric Management	ANRF-PMECRG	04.06.2025	50.04	03-00
9	Prof. Shraddha Srivastava (MATHS)	-	The restriction and kronecker problems in representation theory from the diagram algebra viewpoint	ANRF-PMECRG	05.06.2025	30.24	03-00
10	Prof. Kundan Kumar Singh Sagar (CHEM)	-	Design and Synthesis of Metal Nanoclusters Using Redox-Active and Ambiphilic Ligands: Exploring Ligand-Induced Reactivity	ANRF-PMECRG	11.06.2025	71.64	03-00
11	Prof. Amarkumar A Kushwaha (EECE)	-	Design, analysis and development of an electric-machine with mechanical flux-weakening capability for electric-vehicle applications	ANRF-PMECRG	09.06.2025	61.99	03-00

CONSULTANCY PROJECTS

Sl.No.	Principal Investigator With Dept	Co Principal investigator With Dept	Title of the Project	Industry/Company/ Institute	Sanction date/ Agreement date	Duration of the project (YY-MM)	Cost of the Project (Lakh ₹)
1	Prof. Giridhar Rajesh Bande (CIE)	NA	Proof Checking of Design and drawings of Substructure for Major and Minor bridges in Connection with south Western Railway project Sindhanur-Hirekotongal from Chainage 84+820 km to 115+500km, covering a length of 30.68 kms.	MKC Infrastructure Limited, Gandhinagar	01.04.2025	00-06	16.52
2	Prof. Ramesh Nayaka (CIE)	PROF. Amarnath Hegde (CIE)	Proof check structural design and drawings of vasco station building.	M/s Swarnaa Techno Construction Pvt. Ltd, Hubballi	25.04.2025	00-01	4.72
3	Prof. Ramesh Nayaka (CIE)	NA	Tests on physical and chemical properties of OPC-43 & 53 grade, PPC cement from Shree Cement Limited.	Shree Cement Limited, Haryana	11.04.2025	0.8	1.5
4	PROF. Venkappayya R dEsAi (CIE)	PROF. Sanatkumar Rajamane (CIE)	Structural auditing of walks ways of Railway Stations of SWR (Mysore Division).	Swarnaa Techno Constructions Pvt. Ltd.	09.04.2025	00-02	5.66
5	Prof. Ramesh Nayaka (CIE)	PROF. Amarnath Hegde (CIE)	Structural vetting of station building, platform wall and drains in Gadag-Wadi new BG line project.	DRN Infrastructure Pvt. Ltd., Hubballi	21.04.2025	00-01	4.94
6	Prof. Ramesh Nayaka (CIE)	NA	Tests for Siriplast – 520 (High PC superplasticiser) as per IS 9103.	Sirigiri Corporate Pvt Ltd. Hubballi,	25.04.2025	5 weeks	0.59
7	Prof. Ramesh Nayaka (CIE)	NA	Expert advise on the design of pile protection wall for existing BR. 290A foundation.	Surya Construction Private Limited, Hyderabad	10.06.2025	2 weeks	1.81
8	Prof. Aniket Vasantrao Kataware (CIE)	NA	Proof checking of structural drawings for railway quarters	South Western Railway Hubballi	26.05.2025	00-01	1.77
9	PROF. Venkappayya R dEsAi (CIE)	PROF. Sanatkumar Rajamane (CIE)	Expert advise for pier and I-Girder test results of Bengaluru Metro Airport line project (PKG.3)	NCC Ltd. Bengaluru	30.05.2025	2 weeks	3.06



IIT dhArwAD celebrated the 11th International Day of Yoga on 21st June 2025 with a serene and energizing yoga session held from 7:30 AM to 8:30 AM.



IIT dhArwAD organized Open House 2025 on 4th June, welcoming aspiring students, proud parents, and curious visitors for an engaging day of exploration and interaction.



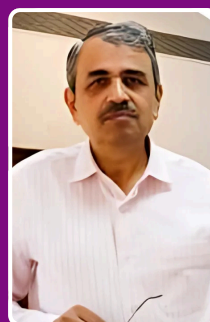
A voluntary humanitarian assistance was extended to the family of Mr. Nagaraj Ulannavar, who served as nursing staff at the Institute's Wellness Center. An amount of ₹1,26,864/- was collected through voluntary contributions from the students, staff, and faculty of IIT dhArwAD. This amount was provided to the family as a small support to help them cope with their loss.



On 5th June 2025, IIT dhArwAD observed World Environment Day with a heartfelt plantation initiative titled “ॢदु वृक्ष तायीयु ढेसरीनलु, ँक डेडु डु के नक्षत्र के नलडु, Ek Pedh Maa ke Nakshatra ke Naam.” This unique drive saw 60 participants planting 27 trees, each symbolically dedicated to a Nakshatra in honor of their mothers. The event was graced by the presence of PROF. Dileep A.D. (Dean, Administration), PProf. Amarnath Hegde (Dean, Infrastructure, Planning & Support), PProf. Dhiraj V. Patil (Dean, Faculty Welfare), Prof. Anand Konjengbam (Faculty In-Charge, Outreach Web Services), PProf. Amar Keshav Gaonkar, Dr. Keerthi Kumar (Sports Officer), and other enthusiastic members of the IIT dhArwAD community.



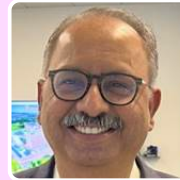
On 26th May 2025, the serene campus of IIT dhArwAD came alive with a spirit of environmental consciousness as it hosted a Tree Plantation Drive. The event was organized in collaboration with the 24 KarnATaKA Battalion NCC, dhArwAD, reflecting a shared commitment to sustainability and ecological responsibility.



The Department of BSBE hosted a seminar by PROF. LS Shashidhara, Director, National Centre for Biological Sciences (NCBS-TIFR), Bengaluru, titled ‘From the Origin of Life to Evolution of Self’ on 17th April 2025. at the Central Lecture Theatre (UG-010).



On 3rd April 2025, we at IIT dhArwAD inaugurated new sports facilities to promote health, fitness, and inclusivity [especially for divyAng student[s]/staff/officer[s]/faculty] on campus. The newly launched amenities include a Cricket, Football, Athletics & Hockey Playground [located beside the Academics-2 Building], a Volleyball Court [next to the Indoor Common Facility], and a specially designed Divyangjan Outdoor Gym [near Hostel-1], aimed at enhancing accessibility and fitness for all members of the campus community.



On 5th April 2025, IIT dhArwAD organized a technical session on Product Innovation, Entrepreneurship, and Manufacturing at the Central Learning Theatre (F-106). The session featured expert talks by Dr. Nagahanumaiah [Director, CMTI(Central Manufacturing Technology Institute) Bengaluru] on “Product Innovation, Requirements, Gaps, and Challenges”, Prof. Satish V. Kailas [IISc Bengaluru] on “New Industrially Relevant Severe Plastic Deformation Processes”, and Prof. P. V. M. Rao [IIT Delhi] on “Building Innovation and Entrepreneurial Ecosystem”. The event offered valuable insights into cutting-edge manufacturing processes, innovation strategies, and fostering entrepreneurial ecosystems.



Department of CIE in collaboration with Bharat Ratna Sir M. Visvesvaraya National Training Facility for Skills for All (BMVNTFSA), Chikkaballapur, organized a One-Week Master Trainer Training Programme (MTP) on “Special Concretes and Non-Destructive Techniques (NDT)” from 1st to 6th April 2025. The programme was coordinated by Prof. Ramesh Nayaka, PProf. Amarnath Hegde and Dr. Venkatesh Babu D. L., Centre Head – Training, BMVNTFSA.

The inaugural session, presided over by PROF. Venkappayya R. dEsAi, Director, IIT dhArwAD, featured PROF. Ravindra Gettu and PROF. Aravind Galagali as Chief Guests. A key highlight of the event was the unveiling of a 3D-printed IIT dhArwAD model using recycled aggregates, symbolizing the institute's commitment to sustainability and innovation.

With over 70 participants from various government departments, the programme featured expert lectures, hands-on sessions in non-destructive testing (NDT), 3D concrete printing (3DCP) demonstrations, and a field visit to an AAC block manufacturing plant



The Civil Engineering Association, IIT dhArwAD, successfully organized Civilathlon 2025, an intra-department sports event, on 18th and 19th April 2025. Participants included faculty, staff, research scholars, B.Tech students and interns, who enthusiastically competed in a variety of events such as Cricket, Volleyball, Badminton, Carrom, and a Technical Quiz.

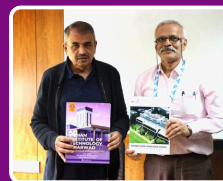
Prof. Swananda Marathe, Dept. of BSBE and Prof. Anand Konjengbam, Dept. of CSE represented IIT dhArwAD at YUGM 2025, a prestigious national conclave dedicated to advancing the vision of Viksit Bharat through collaboration between academia, industry, and innovation ecosystems.



As part of the 'Tapas' initiative by Rashtrorothana Vidya Kendras, a vibrant group of students and teachers visited IIT dhArwAD for an enriching day of academic exposure and interaction. The group engaged with several esteemed faculty members, including PROF. Venkappayya R. dEsAi [Director], PROF. Narayan S. Puneekar [Dean, Academic Programmes], PROF. S. M. Shivaprasad [Dean, Outreach], Prof. K. V. Jayakumar [Visiting Professor], PProf. Naveen M B [Associate Dean, Academic Programmes – Engineering], and Prof. Vijeth Kotagi (Public Relations Officer). The visit featured interactive sessions and campus exploration, sparking curiosity and inspiration among the students.



Dr. Kalyan Bhattacharjee, Registrar, and Shri Ramesh Kumar Ram, Assistant Registrar (MMD), met Col. Sushil Kumar, iPoS, Post Master General, North KarnATaKA Region, at dhArwAD to explore the establishment of a post office within the IIT dhArwAD campus.



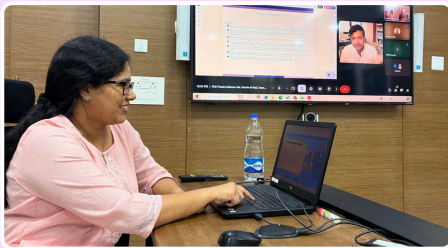
IIT dhArwAD and the National Centre for Biological Sciences (NCBS), Bengaluru, signed a Memorandum of Understanding (MoU) on 29th May 2025, to

strengthen research collaboration in biosciences, with a special emphasis on marine biodiversity. This partnership marks a significant step in promoting interdisciplinary research and innovation, combining IIT dhArwAD's engineering strengths with NCBS's leadership in biological sciences. The collaboration aims to foster joint projects, knowledge exchange, and advanced exploration in ecological and marine systems.

On 2nd June 2025, IIT dhArwAD had the privilege of hosting Mr. Mizutani, Executive Director, JETRO Bengaluru, for a productive discussion on potential avenues of collaboration between JETRO and IIT dhArwAD. The visit focused on strengthening ties in technology, education, and culture, with key areas of mutual interest including academia-industry-government collaboration through the Centre for AI Technologies, student internships and exchange programs, and the proposal of a Japan Day on campus. Discussions also explored recruitment opportunities with Japanese companies and language and cultural exchange through short-term Japanese courses and cultural demonstrations.



IIT dhArwAD has signed a Memorandum of Understanding (MoU) with the Indian Institute of Science (IISc), Bengaluru, marking the beginning of a new chapter in the history of KarnATaKA [the only state having the distinction of hosting an IIT over and above IISc] through sustained academic collaboration. Key highlights of the MoU include a Student Exchange Program, joint research initiatives, collaborative funding efforts, resource sharing, and the co-organization of academic events to promote interdisciplinary learning and strengthen institutional collaboration.



Department of Physics – Highlights

Seminars & Invited Talks

- Dr. Dhiraj Yadav, Post-doctoral Fellow, BanAras Hindu University, delivered a seminar on “Generation of States for Optical Interferometry and its Non-Classical Properties” on 9th June 2025.
- Mr. Priyabrata Char, Research Scholar, University of Calcutta, presented a seminar on “Correlated Catalysis in Coherence Theory” on 6th June 2025.
- Dr. Sumit Mukherjee, Postdoctoral Researcher, Korea Research Institute of Standards and Science, delivered a talk titled “Contextuality sans Incompatibility in the Simplest Scenario: Communication Supremacy of a Qubit” on 4th June 2025.
- Prof. Santosh Kumar delivered an invited talk on “Current Trends in Superconductivity” at the Dept. of Physics, SCSVMV Deemed University, Enathur, TamilNadu, on 11th June 2025.
- Prof. Kavita Devi was invited for a lecture series at CeNSE, IISc Bengaluru, in April 2025.
- PProf. Dhriti Sundar Ghosh delivered an expert talk in the ATAL-FDP titled “Advancement in Nanoelectronics, Energy Conversion and Storage Technology: Design, Fabrication Methodologies and Applications” at NIT RAipur, May 2025.

Student Achievements

- Placement Highlights – B.Tech Engineering Physics (Class of 2025):
 - Jatin Lather – Oracle India
 - Anshif – LTI Mindtree
 - Muktesh Singh Rathore – Vayavya Labs
- Ph.D. Viva Completed:
 - Ms. Harsha Miriam Reji (Supervisor: PProf. R. Prabhu) – 11th June 2025
 - Mr. Hemant S. Hegde (Supervisor: PProf. R. Prabhu) – 8th April 2025



National Centre for Mathematics Workshop (NCMW) 2025 Workshop on Commutative Algebra Organized at IIT dhArwAD: From 24th to 29th June 2025, IIT dhArwAD hosted the workshop NCMW 2025: Recent Developments in Commutative Algebra, jointly organized by Prof. Shreedevi K. Masuti, Prof. Ananthnarayan Hariharan, and Prof. Anurag Singh (University of Utah, USA). The event brought together researchers and students for in-depth discussions on contemporary topics in commutative algebra, featuring distinguished speakers including Prof. Krishna Hanumanthu (Chennai Mathematical Institute), Prof. Eloísa Grifo and Prof. Jack Jeffries (University of Nebraska – Lincoln), Prof. Claudia Polini (University of Notre Dame), and Prof. Bernd Ulrich (Purdue University).



IIT dhArwAD has signed an MoU with Sensesemi Technologies Pvt. Ltd., Bengaluru — a key player in semiconductor and embedded system design. This strategic academia-industry partnership aims to drive innovation in System-on-Chip (SoC) and custom chip design technologies.

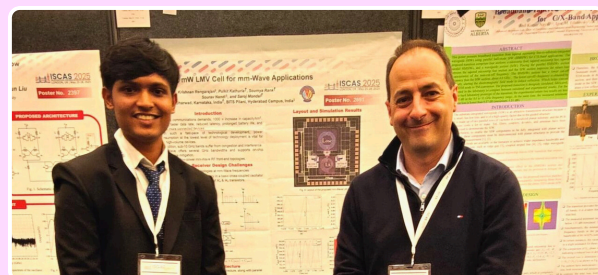
Key focus areas include joint R&D in SoC and chip design, student internships and mentoring, development of real-world semiconductor solutions, and knowledge exchange between academia and industry.




Ms. Tanvi Nayak [MC22BT026], B.Tech student in Mathematics and Computing, presented her research paper titled “Improved Bounds for Online Convex Optimization” at ICASSP (International Conference on Acoustics, Speech, and Signal Processing) 2025, held in Hyderabad.

The paper, co-authored with Prof. Bharath B. N., contributes to advancements in online learning and optimization, and was presented at one of the most prestigious conferences in signal processing, organized by the IEEE Signal Processing Society.

Shri Soumya Rank [EE21BT049], a 4th-year B.Tech. student working under Dr. Saroj Mondal presented a paper titled “A 9.62 mW LMV Cell for mm-Wave Applications” at International Symposium on Circuits and Systems (ISCAS) 2025 held in London, United Kingdom.




Shri Ajith Kumar Pogu [ME21MS005], Dept. of Mechanical, Materials and Aerospace Engineering (MMAE), conducted impactful sessions promoting mindfulness and inner well-being through guided meditation. As part of in-service training at the Karnataka Forest Academy, his session introduced participants to the “Miracle of Mind” app developed by Sadhguru, enabling officers to experience a deep sense of stillness and clarity. On the occasion of the International Day of Yoga, he also conducted a yoga session at the University of Agricultural Sciences, dhArwAD, which witnessed enthusiastic participation from students and staff.



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)




This certificate is awarded to
TONMAY DAS
for successfully completing the course

Forensic Linguistics

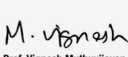
with a consolidated score of **90** %

Online Assignments	22.5/25	Proctored Exam	67.5/75
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Total number of candidates certified in this course: 251





Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM




Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

Feb-Mar 2025
(4 week course)


Shri Tonmay Das [HS24DP005], Ph.D. Research Scholar under PProf. Ridhima Tewari, Dept. of HEART, has successfully completed and topped the NPTEL course on Forensic Linguistics, securing an impressive 90% score. In recognition of his outstanding performance, he has been awarded the prestigious Gold Medal Certificate.



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)




This certificate is awarded to
DEBASHIS BISWAS
for successfully completing the course

Philosophy and Critical Thinking

with a consolidated score of **92** %



Online Assignments	23.44/25	Proctored Exam	69/75
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Total number of candidates certified in this course: 804



Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

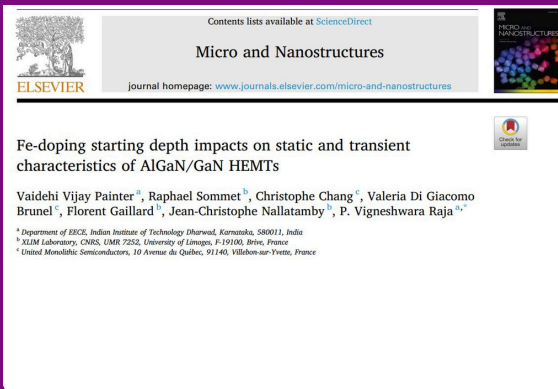
Jan-Apr 2025
(12 week course)

Shri Debashis Biswas, from the Department of HEART, has successfully completed the NPTEL course “Philosophy and Critical Thinking” (January–April 2025 session) with an outstanding score of 92%, earning the Elite + Gold certification. This 12-week course, recommended for 3 to 4 academic credits, was offered by NPTEL under the course code NPTEL25HS64S1044300140.



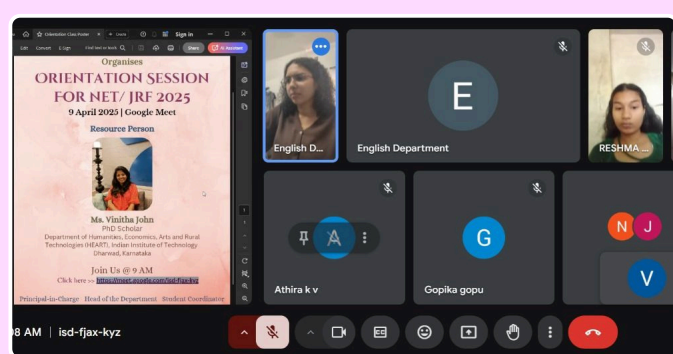
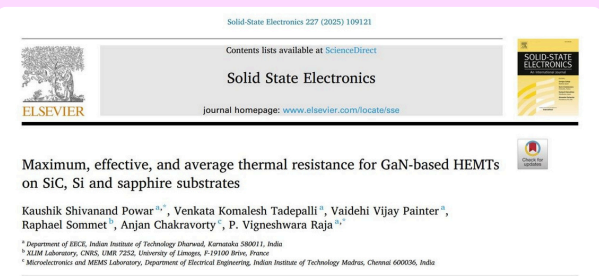
Shri Lipun Kumar Naik (EE24MS001) from the Department of Electrical, Electronics and Communication Engineering presented a paper titled "A Novel Passive Anti-islanding Detection Method for Synchronverter Controlled Grid-Forming Inverter", co-authored by Prof. Animesh K. Sahoo and Dr. Pankaj Dilip Achlerkar, at the 17th IEEE ECCE Asia 2025 conference held in Bengaluru, India, from May 11–14, 2025.



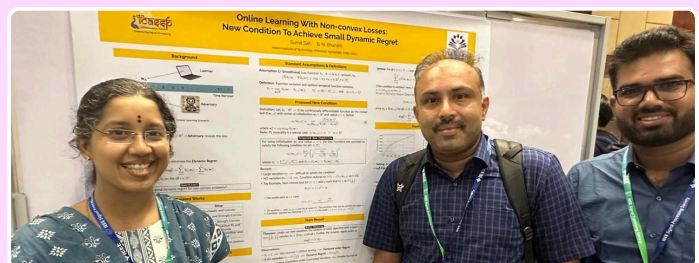
IIT dhArwAD is pleased to share its first joint collaborative journal publication with XLIM Laboratory, France, and UMS – United Monolithic Semiconductors, titled: "Fe-doping starting depth impacts on static and transient characteristics of AlGaIn/GaN HEMTs."

The research was conducted by Ms. Vaidehi Painter (EE22DP005), Dept. of EECE, under the supervision of Prof. P. Vigneshwara Raja. The study explores the influence of Fe-doping profiles on the performance of AlGaIn/GaN High Electron Mobility Transistors (HEMTs), contributing to advancements in semiconductor device engineering.

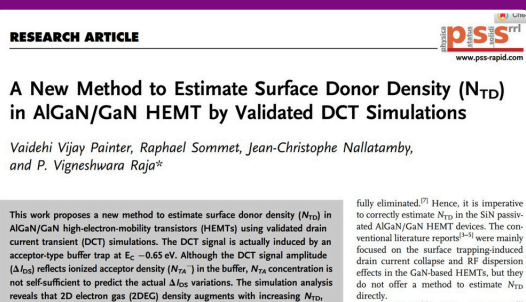
The M.Tech project work of Shri Kaushik Powar and Shri Venkata Komaresh Tadepalli (EE23MT024), titled "Maximum, effective, and average thermal resistance for GaN-based HEMTs on SiC, Si and sapphire substrates," has been published in the journal Solid-State Electronics. The study was conducted in collaboration with IIT Madras and XLIM Laboratory, France, under the guidance of faculty at IIT dhArwAD.



Ms. Vinitha John (HS24DP004), Dept. of HEART, was invited as a resource person for an online orientation session on the UGC NET/JRF examination, held on 9th April 2025, for MA English students of Sree Vivekananda College, Kunnankulam, KERALA.



Shri Sumit Sah (EE20DP002), Dept. EECE, has had his paper titled "Online Learning with Non-Convex Losses: A New Condition to Achieve Small Dynamic Regret" accepted for poster presentation at the prestigious IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2025).



Ms. Vaidehi Vijay Painter (EE22DP005), Dept. of EECE, has published her research titled "A New Method to Estimate Surface Donor Density (NTD) in AlGaIn/GaN HEMT by Validated DCT (Drain Current Transient) Simulations" in the journal Physica Status Solidi (RRL) – Rapid Research Letters. The work was carried out in collaboration with Prof. Jean-Christophe Nallatamby and Dr. Raphael Sommet, XLIM Laboratory, France.



Shri Deepak Mudakavi [ME20DP004], Ph.D. Scholar, Dept. of MMAE, presented his research titled “A Study on Fabricating SS316-IN718 Dual Material through Hybrid Wire-Laser and Powder-Laser Directed Energy Deposition” at the International Conference on Flexible Automation and Intelligent Manufacturing (FAIM 2025), held from 21st to 24th June 2025 in New York, USA.



Shri Prashant Veer [ME22DP002], Ph.D. Scholar, Dept. of MMAE, participated in the National Symposium on Advancements in Metal Additive Manufacturing (AM)², held on 3rd May 2025 in Thiruvananthapuram, KErLa. Organized jointly by VSSC (Vikram Sarabhai Space Centre), LPSC (Liquid Propulsion Systems Centre), IIST (Indian Institute of Space Science and Technology), the symposium centered around the theme “Shaping the Future of Aerospace Manufacturing.”



Shri Mahender Reddy R [CE22DP001], Dept. of CIE, delivered an oral presentation at the 6th International Conference on Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering [EGRWSE-2025] held from 11th to 14th June 2025 at the University of Vigo, Spain.



Ms. Zin Mar Myint (MA20DP001), Ph.D. scholar, Dept. of Mathematics, has successfully defended her dissertation titled “A Study on Structural Graph Theory through Combinatorial Games” under the supervision of Prof. Sagnik Sen.



A paper titled “Permanent-Magnet Biased Inductor for DC Fault-Current Limiting Applications”, authored by Shri Aravind G [EE24MT027] and co-authored by Shivendra Pratap Singh and Prof. Amarkumar Kushwaha, Dept. of EECE, was selected as one of the Best Papers at the 1st International Conference on Power Electronic Converters for Transportation and Energy Applications (PECTEA 2025). The conference was held at IIT Bhubaneswar from 18th to 21st June 2025.



WELCOME TO IIT dhArwAD



From Left to Right: PROF. Venkappayya R. dEsAi, Director, Dr. Kalyan Bhattacharjee, Registrar, Shri Shravan Kumar Amancha, NEWLY JOINED Assistant Registrar, Administration Section, PROF. Dileep A.D., Dean [Administration] and Shri Sandeep Pareek, Deputy Registrar.



From Left to Right: PROF. Venkappayya R. dEsAi, Director, PProf. C Ravikumar [Associate Dean - Alumni, Corporate and Other Outreach (ACR)], Prof Sontti Somasekhara Goud, Assistant Professor, Prof. Varaha Jayarama Krishna Jonnalagedda, NEWLY JOINED Assistant Professor, PProf Tejas Prakash Gotkhindi, Associate Dean [Faculty Welfare (FW)-Recruitment] and PProf. Dhiraj Patil, Dean [Faculty Welfare].



Credits : Public Relations Team, IIT dhArwAD

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