



భారతీయ సాంకేతిక విజ్ఞాన సంస్థ హైదరాబాద్
भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

NEWS LETTER

JANUARY AND FEBRUARY 2025



CENTRE FOR CONTINUING EDUCATION (CCE)



Contact :

040-23018456
OFFICE.CCE@IITH.AC.IN
[HTTPS://CCE.IITH.AC.IN/INDEX.HTML](https://cce.iith.ac.in/index.html)
CCE OFFICE, BLOCK-E, GROUND
FLOOR CONVENTION CENTRE
BUILDING IIT HYDERABAD.



Table of Contents



Page

3

- About Us

4-9

- PM Shri- Navodaya school teacher training program

10

- International SPARC Hybrid Workshop on Translational Bio-Nano Medical Systems

11-12

- ICoRD '25

13-14

- Events Conducted at CCE

15-16

- Gallery of events
- Upcoming events
MARCH / APRIL 2025

ABOUT US

The Centre for Continuing Education (CCE) at IIT Hyderabad is happy to bring out the monthly newsletter for the month of January and February 2025. The newsletter showcases the educational and professional development programs conducted throughout this two months. CCE offers a diverse range of courses, including certificate programs and workshops, tailored for students, academicians, and working professionals. The newsletter serves as a vital communication tool, providing updates on upcoming events such as conferences, specialized workshops, and teaching development programs. Additionally, the newsletter acts as a platform for promoting skill development and capacity building, reflecting CCE's commitment to fostering continuous learning and professional growth.



PM SHRI- NAVODAYA SCHOOL TEACHER TRAINING PROGRAM

ARTICLE - 1

Basic Electronics and Optics

Prof. Harish Dixit ,Dept. of MAE, IIT Hyderabad.

Prof. Anurag Tripathi, Dept. of Physics, IIT Hyderabad.

Objective

The four-day training programme, conducted by Prof. Anurag Tripathi (Physics) and Prof. Harish Dixit (MAE), aimed to equip 100 Navodaya Vidyalaya teachers with practical skills in basic electronics and optics. The focus was on hands-on learning, moving beyond theoretical verification to building confidence in circuit design and measurement techniques.

Outcomes and Impact

- The training successfully provided teachers with:
- Practical skills in circuit building and optics experiments
- Confidence in working with circuits and measurement tools
- The ability to design and implement experiments in classrooms
- A shift towards an inquiry-based, hands-on teaching approach
- Encouragement to foster STEM learning among students

Detailed Session Breakdown

Days 1 & 2: Introduction to Basic Electronics and Circuit Building

- Breadboard Familiarization: Understanding connections and usage
- Basic Circuit Construction: Lighting an LED using a breadboard
- Measurement Techniques: Using multimeters for voltage, resistance, and current.
- Series & Parallel Circuits: Analyzing different circuit configurations
- Circuit Control: Using potentiometers for LED brightness and buzzer volume
- Ohm's Law Exploration: Designing and plotting I-V curves using online tools

Days 3 & 4: Capacitors, Optics, and Advanced Circuitry

- Capacitors: Understanding charging/discharging behavior, series & parallel configurations
- Optics with Polarizers: Exploring light polarization using mobile and laptop screens
- 2-Bit Adder/Subtractor Circuit: Demonstrating digital logic implementation with hands-on practice



Summary

The training empowered JNV teachers with practical and interactive teaching methodologies, allowing them to inspire students through engaging STEM activities. The integration of hands-on experiments into classroom teaching is expected to enhance learning outcomes and spark curiosity in scientific principles.



ARTICLE - 2

Prioritizing Well-being: A Transformative Workshop for Educators

Maria Morris, Senior Psychological Counsellor, IIT Hyderabad.

Recognizing the Human Behind the Teacher

Teaching is a profession that demands dedication, patience, and resilience. While educators are adept at imparting knowledge, they often overlook their own well-being amidst the responsibilities they shoulder. This session focused on self-care, emotional intelligence, and work-life balance, helping teachers acknowledge their needs and refresh their approach to mental wellness.

The Work-Life Balance Challenge

To initiate the session, participants engaged in a symbolic balloon juggling activity, where:

- One balloon represented their personal life
- Another balloon represented their professional life

The challenge? Keeping both balloons afloat while using only one hand—a clear metaphor for the struggles of maintaining work-life balance. Through teamwork, they realized the power of support systems—be it colleagues, family, or friends—in staying afloat amidst life's challenges.

Identifying Priorities Using the Skilled Helper Model

Guided by the Skilled Helper Model by Gerard Eagan, teachers reflected on:

- ◆ Blind spots hindering their work-life balance
- ◆ Their ideal state of balance and well-being
- ◆ Actionable steps to make that balance a reality



Emotional Intelligence: Understanding and Managing Emotions

The session delved into Emotional Intelligence (EI), addressing:

- 💡 Recognizing and labeling emotions
- 💡 Understanding the triggers behind feelings
- 💡 Developing strategies to process and express emotions constructively

Since teachers interact with students daily, they also explored:

- ✅ Empathizing with students' emotions
- ✅ Practicing active listening and emotional regulation
- ✅ Role-playing classroom scenarios to develop EI skills in real-world teaching

Summary

A Revitalized Approach to Teaching & Self-Care

This interactive and reflective session reinforced the importance of self-awareness, emotional management, and balance in educators' lives. By recognizing their own emotional needs, teachers are now better equipped to create a positive, emotionally supportive learning environment for their students.



ARTICLE - 3

Teaching Robotics to Make Math and Science Exciting

Dr. Himabindu Allaka, Dept. of Mechanical & Aerospace Engineering,
IIT Hyderabad





A Continuous Professional Development Initiative for High School Teachers

Empowering Educators Through Hands-On Learning

As part of the Center for Continuing Education (CCE) at IIT Hyderabad, a Continuous Professional Development (CPD) training session was conducted for high school teachers. This initiative aimed to introduce activity-based learning through robotics, making STEM concepts more engaging and accessible. By integrating tinkering and experimentation, the goal was to enhance student engagement and conceptual understanding.

Integrating Robotics into STEM Education

The session focused on using readily available sensors and microcontrollers to build hobby-grade robots for real-world applications. Key highlights included:

-  Constructing an obstacle-avoidance unmanned ground vehicle (UGV)
-  Exploring ultrasonic sensing, motor sizing, power management, and frictional resistance
-  Calculating motor power requirements, speed, and distance measurement
-  Basic coding for autonomous navigation and course correction

By actively participating in these projects, teachers witnessed how practical applications can deepen students' understanding of math, physics, and programming.

Engaging Students Through Robotics

Beyond training teachers, IIT Hyderabad's Rural Development Center (RDC) also engages high school students in hands-on projects. Some of the student activities include:

- ✓ Building simple hobby-grade radar systems
- ✓ Using platforms like Brilliant and GeoGebra for interactive learning
- ✓ Introducing coding through Scratch programming
- ✓ Creating digital prototypes using Tinkercad

This approach not only removes the fear of experimentation and failure but also fosters a culture of innovation and problem-solving at an early age.



The Role of Educators in Lifelong Learning

To prepare future engineers, scientists, and innovators, educators must embrace lifelong learning by continuously adapting to new methodologies and emerging technologies. By embedding hands-on experimentation into everyday teaching, we can:

- ◆ Create a more application-driven learning environment
- ◆ Strengthen teacher-student engagement
- ◆ Encourage curiosity, creativity, and resilience in students
- ◆ Lay the foundation for a self-reliant generation of innovators and creators

Summary

Towards an Application-Oriented Future

By integrating robotics and experiential learning into school curricula, educators can transform classrooms into innovation hubs. Encouraging hands-on experimentation will not only make learning more interactive and engaging but also inspire students to become problem solvers and future leaders in STEM.



INTERNATIONAL SPARC HYBRID WORKSHOP ON TRANSLATIONAL BIO-NANO MEDICAL SYSTEMS



Co-Coordinator(s)

Dr. A.K. Rengan , Dept. of BME, IIT Hyderabad

Dr. Bhuvanesh Ramakrishna , Dept. of BME, IIT Hyderabad

Overview of Program

The International SPARC Hybrid Workshop on Translational Bio-Nano Medical Systems was successfully organized at IIT Hyderabad, bringing together global experts, researchers, and industry leaders. This two-day event, under the SPARC Initiative, focused on advancing bio-medical and nano-medical technologies through collaborative knowledge exchange.

The Organizers extend their gratitude of faculty esteemed speakers

Prof. David Leong , National University of Singapore.

Dr. Tedrick Lew, National University of Singapore.

Dr. Yiliang Lin, National University of Singapore.

Dr. Nagarajan Ganapathy , Dept. of BME, IIT Hyderabad.

Dr. Mohan Raghavan , Dept. of BME, IIT Hyderabad.

Dr. Avinash Eranki , Dept. of BME, IIT Hyderabad.

Prof. M. Sathiyendiran , Dept. of Chemistry, University of Hyderabad.

Dr. Suhanya Duraiswamy , Dept. of Chemistry, IIT Hyderabad.

Dr. Asifkhan Shanavas - Principal Scientist, INST, Mohali.

Prof. M.S. Muthu Dept. of Pharmaceutical Engg and Tech, IIT Varanasi.

10TH INTERNATIONAL CONFERENCE ON RESEARCH IN DESIGN 2025 (ICoRD '25)



Co-Coordinator(s)

Prof. Amaresh Chakrabarti, Programme Chair ICoRD '25, Dept. of Design and Manufacturing, IISC, Bengaluru.

Dr. Prasad S. Onkar, Conference Chair ICoRD '25, Dept. of Design, IIT Hyderabad.

Dr. Vishal Singh, Dept. of Design and Manufacturing, IISC, Bangalore.

Dr. Mohammad Shahid, Dept. of Design, IIT Hyderabad.

Overview of Program Co-ordinate (S)

The dynamic world of design research explored at ICoRD'25 from January 8th to 10th, 2025, at the Department of Design, IIT Hyderabad which also celebrates the shaping of a decade of "Design Excellence" at the Intersection of Innovation and Collaboration. About ICoRD'25.

Explore the dynamic world of design research at ICoRD'25 from January 8th to 10th, 2025, at the Department of Design, IIT Hyderabad which also celebrates the shaping of a decade of "Design Excellence" at the Intersection of Innovation and Collaboration. Department of Design, IIT Hyderabad.

This tenth edition of this biennial conference delves into the multifaceted nature of design, showcasing cutting-edge research and fostering collaboration. It aims to showcase cutting-edge research about design to the stakeholders; aid the ongoing process of developing and extending the collective vision through emerging research challenges and questions; and provide a platform for interaction, collaboration and development of the community in order for it to take up the challenges to realize the vision.

Organized jointly with the Department of Design and Manufacturing (DM) (erstwhile Centre for Product Design and Manufacturing – CPDM), Indian Institute of Science (IISc), Bengaluru, this event brings together practitioners, researchers, pupils, and educators in a vibrant space where technology and human experience intersect. Join us in shaping the future of design innovation.

ICoRD series was initiated by the Department of Design and Manufacturing (DM) (erstwhile Centre for Product Design and Manufacturing – CPDM), Indian Institute of Science (IISc), Bengaluru in 2006. Since then, it has been hosted in 2009, 2011 (both at IISc), 2013 (at IIT Madras), 2015 (IISc), 2017 (IIT Guwahati), 2019 (IISc), 2021 (IIT Bombay) and 2023 (IISc). DM (erstwhile CPDM) has pioneered design research in India for the last two decades. IISc is one of India’s leading science and technology institutions and is one of the Institutes of Eminence (IoE) decreed by the Ministry of Education (MoE), Government of India. ICoRD’25 is jointly organized by DM (erstwhile CPDM), IISc, and the Department of Design, IIT Hyderabad.

ICoRD’25 is endorsed by Design Research society and The Design Society. The DRS is the longest established, multi-disciplinary worldwide society for the design research community.

More than 640 participants including the registered authors and (570+), Keynote speakers, Organizing Committee members and volunteers.

A total of 1228 abstracts were received, of which 1184 were asked to submit the full papers. We received 699 full paper submissions which were reviewed by the international programme committee of 334 reviewers represented from 20+ countries and 5 continents. Based on the double-blind review, a total of 486 papers were selected for publication. Apart from this there were 8 keynotes, (4 international and 4 national keynote speakers which included two ICONNN award keynotes). 70 parallel sessions, 21 workshops, 2 panel discussions, PhD symposium, Young researchers’ meet, Marketplace (product exhibitions), Regional art and craft exhibition, Student Design Challenge, cultural events, etc.

The accepted papers will be published by Springer as book chapters (in 12 volumes) and will be indexed on Scopus

There were cultural events organized on 8th and 9th January evenings. On 8th Evening, a curated AI-Art Exhibition from the selected artists known as "Poetic Discord" was showcased. After that we had the Indian classical evening “Samaagati” a captivating Kuchipudi-Odissi jugalbandi by the artists Srividya Angara and Shubha Nagarajan. The cultural evening held in the LHC which also helped them to visit the Design Department building, KRC, etc. Many Indian and International participants were impressed by the institute infrastructure and other facilities. Overall, it created a very positive perception to the national and international participants. On 9th January, a Gala Dinner was organized in “Pragati Resorts” with a Sitar performance “Strings Unbound” from Swayam Siddha Priyadarshi.



EVENTS CONDUCTED AT CCE

CERTIFICATE PROGRAMS/ SEMINARS

- Scient Spark-Startup Launchpad, held from 4th to 25th January 2025, *“Organized by Dr.Nakul Parameswar and Dr. Rajesh Ittamalla, Department of Entrepreneurship and Management”*, IIT Hyderabad.
- On Campus training PG Certificate Program in Visual Design and User Experience (VDUX), held 2nd February 2025, *“Organized by Dr. Anusmita Das, Department of Design”*, IIT Hyderabad.

EVENTS ORGANIZED AT CCE

- SPIC MACAY 10th international convention Event, held from 3rd to 5th January 2025, *“Organized by Dr. Prakhar Gupta FIC SPIC MACAY”*, IIT Hyderabad.
- Departmental Advisory Committee (DAC) meeting, held on 8th February 2025, *“Organized by Prof. K Siva Kumar, Department of Electrical Engineering”*, IIT Hyderabad.
- Hyderabad -Heidelberg Hub for Advanced Chemical Education (HHHACE), held on 24th February 2025, *“Organized by Prof. G Narahari Sastry Dean (Sponsored Research & Consultancy), Department of Biotechnology”*, IIT Hyderabad.
- State Bank of India RBO Review Meeting, held on 5th February 2025, *“Organized by HR & Admin”*, IIT Hyderabad.
- Sunshine Talent Night (For Sunshine student team)- Breathe and Bond, held on 25th February 2025, *“Organized Maria Morris Senior Psychological Counsellor”*, IIT Hyderabad.

WORKSHOPS / SYMPOSIUMS / CONFERENCE

- Australia-India Critical Minerals Research Hub Symposium & Workshop, held from 2nd to 4th January 2025, *“Organized by Prof. Narasimha Mangadoddy, Department of Chemical Engineering”*, IIT Hyderabad.
- International Conference on Distributed Computing and Networking (ICDCN), held from 4th to 7th January 2025, *“Organized by Prof. Sathya Peri, Department of Computer Science & Engineering”*, IIT Hyderabad.
- International Conference on Research into Design (ICoRD'25), held from 8 to 10th January 2025, *“Organized by Dr. Prasad S. Onkar, Department of Design”*, IIT Hyderabad.

- GIAN Course Smart Cybersecurity: leveraging AI for threat Analysis and response (SCALE), held from 13th to 17th January 2025, *“Organized by Prof. Abhinav Kumar, Department of Electrical Engineering”*, IIT Hyderabad.
- International SPARC Workshop on Translational Bio - Nano Medical Systems, held on 18th January 2025, *“Organized by Dr. Aravind Kumar Rengan, Department of Biomedical Engineering”*, IIT Hyderabad.
- IEEE Applied Sensing Conference (APSCON), held from 19th to 22nd January 2025, *“Organized by Prof. P Rajalakshmi, TiHAN IIT, and Prof. Ashok Kumar Pandey, Department of Mechanical and Aerospace Engineering”*, IIT Hyderabad.
- Eighth National Finite Element Developers/FEAST Users & Meet (NAFED08) Conference, held from 31st January to 1st February 2025, *“ Inaugurated by Dr. S. Unnikrishnan Nair, Director, VSSC and Prof. B.S. Murthy, Director”*, IIT Hyderabad.
- Indian Council of Medical Research (ICMR) employees in collaboration with Quality Council of India (QCI), held from 3rd to 21st February 2025, *“Organized by Manav Rachna International Institute of Research & Studies (MRIIRS)”*,.
- Indian Council of Social Science Research funded Vision Visit Bharat@2047 conference: "Turning Girls into Daughters" Conditional Cash Transfer Schemes, Marginalities and Changing Gender Dynamics in India, held from 11th to 12th February 2025, *“Organized by Dr. Anindita Majumdar, Department of Liberal Arts”*, IIT Hyderabad.
- National Faculty Updation Program (FUP) on Wireless Security, held from 18th to 22nd February 2025, *“Organized by Prof. Bheemarjuna Reddy Tamma, Department of Computer Science and Engineering”*, IIT Hyderabad.
- One-day workshop On Sound Quality, held on 19th February 2025, *“Organized by Prof. Venkatesham B, Mechanical & Aerospace Engineering”*, IIT Hyderabad.
- Department of Science and Technology is organizing ‘Leadership Development Workshops’ for Women Scientists working in Space and Allied Sciences (WiSLP) in collaboration with the British Council under the UKEIRI programme, held from 18th to 21st February 2025, *“Organized by Dr. Mudrika Khandelwal, Department of Materials Science And Metallurgical Engineering”*, IIT Hyderabad.
- IEEE Applied Sensing Conference (APSCON), 19th to 22th January 2025, *“Organized by Prof. Ashok Kumar Pandey And Prof. P Rajalakshmi, TiHAN IIT and Department of Mechanical and Aerospace Engineering”*, IIT Hyderabad.

- Indian Chapter of International Society of Magnetic Resonance in Medicine (ISMRM), held from February 26th to 1st March 2025, “Organized by Dr. Jaladhar Neelavalli, Department of Biomedical Engineering”, IIT Hyderabad.
- Horizons in structural and computational biology-2025 (HSCB-2025), held February 28th to 1st March 2025, “Organized by Prof. Rathinavelan Thenmalarchelvi, Department of BioTechnology”, IIT Hyderabad.
- Vulnerable Bodies in Literature and Culture (VBLC), held from February 28th to 1st March 2025, “Organized by Dr. Anandita Pan, Department of Liberal Arts”, IIT Hyderabad.
- Academia -industry workshop on electronic and photonic substrates, held 24th February 2025, “Organized by Dr. Naresh Kumar Emani, Department of Electrical Engineering”, IIT Hyderabad.

UPCOMING EVENTS MARCH 2025

- The Prime Minister's Research Fellows (PMRF) Symposium 2025, held 16th to 17th March 2025, “Organized by Prof. Kishalay Mitra and Dr. Muvvala Gopinath, Department of Chemical Engineering and MAE”, IIT Hyderabad.
- Defence Research and Development Organization (DRDO) AM Workshop 2025, held 3rd to 7th March 2025, “Organized by Prof. Surya Kumar S, Department of Mechanical & Aerospace Engineering”, IIT Hyderabad.
- International Conference On Laser & other Deposition Techniques (iCOLD25), held 16th to 17th March 2025 “Organized by Prof Ranjith Ramadurai, Department of Materials Science And Metallurgical Engineering”, IIT Hyderabad.
- Science Communication Outreach Public Engagement Workshop, held 1st to 5th March 2025, “Organized by Prof. Chandra Shekhar Sharma, Department of Chemical Engineering”, IIT Hyderabad.
- MMTTP Medical Informatics and Digital Health, held 17th March 2025, “Organized by Dr. Nagarajan Ganapathy, Department of Biomedical Engineering”, IIT Hyderabad.
- Food & Mental Health, held 18th March 2025, “Organized Maria Morris Senior Psychological Counsellor”, IIT Hyderabad.
- Deeptech Symposium held 23rd March 2025, “Organized by Dr. Jayshree Patnaik, Department of Entrepreneurship and Management” IIT Hyderabad.
- Sunshine workshop for PG PhD Students, held 24th March 2025, “Organized Maria Morris Senior Psychological Counsellor”, IIT Hyderabad.
- Artificial Intelligence & Machine Learning (AIML), held 29th March 2025, “Organized by Kishan Samayamantry Head of Business Development”, IIT Hyderabad.

GALLERY OF EVENTS



National Finite Element Developers/FEAST Users & Meet (NAFED08) Conference



IEEE Applied Sensing Conference (APSCON)



International Conference on Distributed Computing and Networking (ICDCN)



SPIC MACAY Event

GALLERY OF EVENTS



Women Scientists working in Space and Allied Sciences (WiSLP)



National Faculty Updation Program (FUP) on Wireless Security



GIAN Course: Smart Cybersecurity: leveraging AI for threat Analysis and response (SCALE)



Australia-India Critical Minerals Research Hub Workshop.



Indian Chapter of International Society of Magnetic Resonance in Medicine (ISMRM)

