

DEPARTMENT OF
**ELECTRONICS
ENGINEERING**

IIT (ISM) Dhanbad



NEWS LETTER

October 2024

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From The HoD's Desk



Dear Readers,

We are here to update you about the overall progress and a few milestones achieved by the Department of Electronics Engineering in October 2024.

The month began with welcoming our new faculty member Dr. Yericharla Mary Asha Latha to the department followed by a couple of invited talks by Prof. Lawrence R Chen from McGill University, Prof. Jake Bowers from Loughborough University, and Mr. Jayprakash Thakur from Intel. Additionally, The department organized a three-day workshop on "Photonic Sensors for Biosensing Applications", which consisted of many exciting and inspiring technical sessions. We achieved some milestones through publications, fellowships, and awards by our faculties, staff, and students.

Prof. R. K. Ranjan has published his latest outcomes in the IEEE Transactions on Circuits and Systems II journal. Prof. Manodipan Sahoo has been conferred with an IETI fellowship as well as the editorial board membership of Nature Scientific Reports. Prof. S. K. Raghuwanshi is appointed as "Topical EDITOR" of APPLIED OPTICS (OSA-OPTICS,USA) Journal and has been conferred "Fellow of IETE". Prof. Rahul Bhattacharya is building an Analog Mixed Signal laboratory under the ADI Innovation Fellowship Grant by Analog Devices. Our IPDF Dr. Anil Rajput was honored with the prestigious "Young Scientist Award" at the URSI Regional Conference on Radio Science (RCRS) 2024, and our PhD student Mr. Karthik Gugulothu grabbed the Eric Walton Student Travel Awards from Antenna Measurement Techniques Association (AMTA). The month ended with an outreach activity by our OPTICA group to Kendriya Vidyalaya No 2, Dhanbad.

Please find the Newsletter for detailed updates and give your valuable feedback to fertilize us to be bigger and better.

Wish you all the best!

Prof. Ravi Kumar Gangwar
HoD, Department of Electronics Engineering,
IIT(ISM) Dhanbad

WORKSHOP on Photonic Sensors for Biosensing Applications



THE DEPARTMENT OF ELECTRONICS ENGINEERING AT IIT (ISM) DHANBAD SUCCESSFULLY ORGANIZED A THREE-DAY WORKSHOP ON PHOTONIC SENSORS FOR BIOSENSING APPLICATIONS FROM 17TH OCTOBER TO 19TH OCTOBER 2024

The workshop aimed to provide participants with a comprehensive understanding of the latest advancements in photonic sensor technology and its applications in healthcare, environmental monitoring, and beyond.

Opening Ceremony

The event commenced with an inaugural session graced by several distinguished guests. Prof. Srinivas Talabattula from IISc Bangalore was the Guest of Honor, delivering the keynote address on Integrated Optical Biosensors. He was joined by Prof. Mritunjay Kumar Singh, Dean (Academic), and Prof. Ravi Kumar Gangwar, HoD of the Electronics Engineering Department, IIT (ISM) Dhanbad. Prof. Sanjeev Kumar Raghuvanshi, the workshop coordinator, welcomed the participants and outlined the workshop's objectives.

Keynote Speakers and Sessions

Throughout the workshop, participants had the opportunity to engage with leading experts in the field of photonic sensors, who shared their knowledge and insights through a series of technical talks and hands-on demonstrations. Some highlights of the technical sessions include:

- Dr. Srinivas Talabattula (IISc Bangalore) presented on Integrated Optical Biosensors, focusing on the design and applications of these sensors in modern healthcare.
- Prof. Sanjeev Kumar Raghuvanshi (IIT-ISM Dhanbad) delivered a session on the Role of Photonic Technology-Based Sensors in Environmental Applications, demonstrating how these sensors are crucial for environmental monitoring.
- Mr. Palas Biswas (CSIR-CGCRI) discussed the application of photonic sensors for biosensing and explored how these sensors can be used to detect biological agents.
- Dr. Vinod Belwanshi (CSIR-NML Jamshedpur) gave an insightful talk on the Design and Simulation of MEMS Devices, which are essential for advancing sensor technologies.
- Dr. Umesh Kumar Tiwari (CSIR-CSIO Chandigarh) highlighted Recent Innovations in Functionalized Photonic Sensors, discussing novel applications in healthcare and industry.

In addition, participants gained hands-on experience with optical fiber handling, splicing, and spectrophotometry through live demonstrations conducted by the Fiber Optic Sensor Lab at IIT (ISM) Dhanbad. The session on COMSOL Multiphysics software for modeling optical fiber sensors was particularly well-received, providing participants with practical insights into sensor simulation.

Workshop Conclusion

The workshop concluded with a valedictory session where participants shared their experiences and feedback. Prof. Sanjeev Kumar Raghuvanshi expressed his gratitude to all the speakers, participants, and the organizing committee for their contributions to the success of the workshop. The event provided a platform for exchanging ideas, fostering collaboration, and inspiring future innovations in the field of photonic sensors.

With 62 participants, including 23 in-person and 39 online attendees, the workshop was a resounding success, contributing to the growing body of knowledge in photonic sensor technology.



TALK ON THE NEXT GEN NETWORK

It was our privilege to host an insightful session organized by the IEEE Student Branch Chapter at IIT ISM Dhanbad and the Department of Electronics Engineering. The event featured Mr. Jayprakash Thakur, Principal Engineer at Intel and Senior IEEE Member, who delivered a talk titled "Advancing Mobile Connectivity: Critical Antenna Design and Integration Challenges of 6G and Wi-Fi 7 in Mobile Systems".

Mr. Thakur gave a detailed look into the evolution of wireless connectivity, showing how technology has advanced from simple voice calls in 1G to the powerful applications expected in 6G, such as ultra-fast connections for autonomous vehicles and space-based Internet of Things (IoT) systems. Each generation of cellular technology has increased data speeds, reduced delay times, and expanded possibilities, from basic voice use to connecting billions of smart devices around the world. He also shared how 5G uses a wide range of frequencies, from low to very high (mmWave), to support both rural and urban areas with unique speed and coverage needs. He then discussed the evolution of Wi-Fi, particularly Wi-Fi 7, which brings big changes with technologies like Multi-Link Operation (MLO) and high-efficiency modulation (4096-QAM). These features allow faster and more reliable connections, especially for high-demand activities like gaming and video calls. Mr. Thakur also highlighted the increasing role of wireless technology in our daily lives—from smart homes and wearable devices to cars and industrial machines—creating a growing demand for robust, high-speed standards like 5G and Wi-Fi 7.

He also explained the challenges of designing antennas for today's devices, especially as they become smaller and more complex. Engineers must create antennas that work across multiple frequencies, avoid interference, and fit within compact devices while being energy-efficient. Meeting government standards and keeping costs down are also key priorities. Mr. Thakur's insights gave a clear view of how engineers manage these design complexities to create high-performance devices that keep us all connected.

Thank you Mr. Jayprakash Thakur for giving your valuable time.



meet.google.com/mdt-zvaz-kpr

JAYPRAKASH THAKUR (Presenting)

Cellular Technology Evolution

Generation	Year	Data Rate	Latency	Mobility	Application
1G	1980	2.4 Kbps	-	-	Voice
2G	1990	50 Kbps	300ms	-	Voice, SMS
3G	2000	21 Mbps	100ms	350 Km/h	Voice, web browsing
4G/LTE	2010	100 Mbps	10 ms	350 Km/h	Mobile data, Consumption and high data rate
5G	2020	10 Gbps	1 ms	500 Km/h	Technology to enhance experiences and drive digitalization of industries
6G	2030	>1 Tbps	10-100 μs	>1000 Km/h	Space Tourism, Automated cars

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Participants: JAYPRAKASH, Anil Pandey, MD BELAL ARS..., Nikhita Kulkarni, RAMNARESH P..., VIKASH KUMAR, Sharath Naik, 22 others, Nibash Sahu.

INVITED TALKS

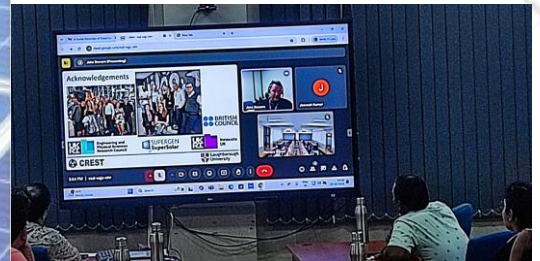
Solution processing of CIGS solar cells using metal chalcogenide precursors in amine-thiol solvents



Dr. Jake Bowers is a Reader (Associate Professor) in Photovoltaics at Loughborough University's Centre for Renewable Energy Systems Technology (CREST). He began his career in photovoltaics in 2006 as a PhD student, focusing on transparent conducting oxides for dye-sensitized solar cells. After completing his PhD, he transitioned to second-generation technologies, specifically working with sputtered CdTe for building-integrated photovoltaics (BIPV). In 2012, he secured a permanent academic position at Loughborough, where he has since advanced research in low-cost deposition of chalcogenide-based photovoltaics, including CZTS and CIGS, while continuing his work with vacuum-deposited CdTe.

SPEAKER
Prof. Jake Bowers

Mode of Talk
Virtual



1. E3RL Group of our department hosted a Tech talk titled "Solution processing of CIGS solar cells using metal chalcogenide precursors in amine-thiol solvents". The talk was delivered by Prof. Jake Bowers (in virtual mode) from Loughborough University, and highlighted his experience, findings and challenges in CIGS solar cell.
2. E3RL Group of our department hosted a Tech talk titled "Exploring the Nanoscale: An introduction to transmission electron microscopy (TEM) for Electronic materials Research." The talk was delivered by Prof. Anuj Bisht from IIT Roorkee.

Thank you Prof. Jake Bowers and Prof. Anuj Bisht for giving your valuable time!

E3RL

Exploring the Nanoscale: An Introduction to Transmission Electron Microscopy (TEM) for Electronic Materials Research

This talk introduces Transmission Electron Microscopy (TEM) as a key analytical technique in materials science for electronics students. It covers the fundamental principles of TEM, explaining how it generates high-resolution images of atomic-scale structures, and discusses its capabilities in imaging, diffraction, and spectroscopy. Special emphasis is placed on its role in studying defects and nanoscale features critical for semiconductor devices and nanotechnology. Overall, the session highlights TEM's importance in advancing research within the electronics industry.




SPEAKER
Prof. Anuj Bisht
(IIT Roorkee)

Mode of Talk
Virtual


Dr. Anuj Bisht earned his Bachelor's Degree in Mechanical Engineering from the National Institute of Technology Calicut in 2009, receiving a Gold medal. He completed his Master's in Nanotechnology at IIT Roorkee in 2011 and pursued his PhD at IISc Bangalore, focusing on the response of closed-packed metals to high-strain rate and shock-assisted deformation. After a post-doctoral position at Loughborough University in 2018, he moved to Technion Israel in 2019, where he studied the deformation mechanics of metal alloy nanoparticles and solid-state dewetting. In March 2023, he joined Pennsylvania State University as a Research Associate Professor, working on TEM-based characterization of 2D TMDs and organic perovskites. Prior to joining IIT Roorkee, he worked at IIT Kharagpur as an Assistant Professor for a short duration. Dr. Bisht has published 27 peer-reviewed journals, 2 book chapters, and 6 conference papers, with research interests in shock-material interaction, nanomechanics, and high-end electron microscopy characterization of materials.






Optica Student Chapter, IIT (ISM) Dhanbad

Presents Guest Lecturer Program on




Microwave photonic signal processing with quantum dash optical frequency comb source




Guest Lecturer:

Prof. Lawrence R Chen
(Optica-Individual Member, Fellow)
ECE Dept., McGill University
Montreal, Canada



15th
Oct,
2024



06:30 PM (IST)
09:00 AM (ET)

Mode of Lecture: Virtual

GUEST
LECTURE

"Microwave photonic signal processing with quantum dash optical frequency comb sources" was delivered via virtual mode by Prof. Lawrence R Chen (Optica-Individual Member, Fellow) ECE Dept, McGill University. Montreal, CANADA on 5 Oct 2024, Time: 06:30 PM (IST) and 9.00 AM (EST).

Organizer: Prof. Devendra Chack (Faculty adviser, Optica student Chapter, IIT (ISM), Dhanbad), Prof. Amitesh Kumar (Faculty Co-adviser, Optica student Chapter, IIT (ISM), Dhanbad), Mr. Nitesh Kumar (president, Optica student Chapter, IIT (ISM), Dhanbad), Mr. Ravi Kumar Roushan (Vice-president Optica student Chapter, IIT (ISM), Dhanbad) and Ms. Kavita Jha.

Optica student Chapter, IIT (ISM), Dhanbad provides the optical instruments for demonstration of optical experiment to school students. The demonstration of experiments increases the curiosity about how optics affects our daily life. The student learns the fundamental of optical principles. It will create a footprint on the mind of student that will help to generate new question in mind. These activities are beneficial for the students to consider their future in optical science.

Organizer: Prof. Amitesh Kumar, Prof. Devendra Chack, Mr. Randhir Sah, Mr. Nitesh Kumar.

OUTREACH



Media Corner

A glimpse from print media regarding our bootcamp activity in REC Ramgarh

इंजीनियरिंग कॉलेज के छात्रों को मिली तकनीकी जानकारी

प्रतिनिधि, चित्तूरपुर

चित्तूरपुर प्रखंड क्षेत्र के मुरुबंदा स्थित रामगढ़ इंजीनियरिंग कॉलेज में आयोजित पांच दिवसीय बूट कैंप बुधवार को संपन्न हो गया। प्राचार्या डॉ श्रावणी राय ने कहा कि बूट कैंप से छात्र-छात्राओं को तकनीकी दुनिया से जुड़ने का अवसर मिलता है। उप प्राचार्य डॉ नजमुल इस्लाम ने कहा कि छात्र-छात्राओं के क्षमता विकास के लिए इस तरह के कार्यक्रम के लिए कॉलेज तैयार है। मानव संसाधन विकास के प्रधान अन्वेषक डॉ रवि कुमार गंगवार ने कार्यक्रम को सफल बनाने के लिए कॉलेज प्रबंधन का आभार व्यक्त किया। इस दौरान छात्र-



कैंप में शामिल इंजीनियरिंग के विद्यार्थी व अन्य.

छात्राओं ने इलेक्ट्रॉनिक्स से जुड़ी कई तकनीकी मॉडल को प्रस्तुत किया। कार्यक्रम में हिस्सा लेने वाले इंजीनियरिंग के छात्रों के बीच प्रमाण पत्र का वितरण किया गया। मौके पर

डॉ जय सिंह खंगराजन, डॉ सम्राट मुखोपाध्याय, डॉ अभिषेक ग्रोवर, डॉ वरुण चौधरी, कुंदन कुमार सुमन, अक्का राज, डॉ आशीष नारायण, डॉ अयनी नंदी, पल्लव दास मौजूद थे।

बूटकैंप से इंजीनियरिंग के छात्रों को तकनीकी दुनिया से जुड़ने का मौका मिलता है : डॉ. शरबानी राय



इंद्राखंड न्यूजलाइन। रजरप्पा इंदरखंड सरकार द्वारा स्थापित और टेकने इंद्रिया शुभ द्वारा संचालित मुरुबंदा स्थित रामगढ़ इंजीनियरिंग कॉलेज (आइईसी) ने 18/10/2024 से 22/10/2024 तक रामगढ़ इंजीनियरिंग कॉलेज परिसर में इलेक्ट्रॉनिक्स इंजीनियरिंग विभाग, आईआईटी (आईएसएम) धनबाद द्वारा आयोजित कार्यक्रम मानव रहित हवाई प्रणाली, सेंसर और संचार के लिए इलेक्ट्रॉनिक्स पर बूटकैंप का आयोजन किया। आइईसी की प्राचार्या डॉ. शरबानी राय ने बताया कि हमारे संस्थान का मानना है कि इस

तरह के बूटकैंप से इंजीनियरिंग के छात्रों को तकनीकी दुनिया से जुड़ने का मौका मिलता है। आइईसी के उप प्राचार्य डॉ. नजमुल इस्लाम ने कहा कि हम अपने छात्रों को इस तरह के कार्यक्रम देने के लिए बहुत इच्छुक हैं, ताकि वे वास्तविक समय के समाज से तालमेल बिठा सकें। पांच दिवसीय ड्रोन टेक्नोलॉजी बूटकैंप के समापन अवसर पर, मीटो द्वारा वित्त पोषित परियोजना "क्षमता निर्माण के लिए मानव संसाधन विकास" के प्रधान अन्वेषक डॉ. रवि कुमार गंगवार ने रामगढ़ इंजीनियरिंग कॉलेज

के प्राचार्य, प्रोफेसरों और कर्मचारियों द्वारा दिए गए अमूल्य सहयोग और उत्कृष्ट फुल्लिगनों के उपयोग के लिए हार्दिक आभार व्यक्त किया। डॉ. गंगवार ने कहा, "रामगढ़ इंजीनियरिंग कॉलेज के प्राचार्य और प्रोफेसरों, कर्मचारियों के अटूट समर्थन के बिना इस बूटकैंप की सफलता संभव नहीं थी। उन्होंने हम सभी आवश्यक सुविधाएं उपलब्ध कराईं, जिनमें अच्छी तरह से सुरक्षित डिजिटल कक्षाएं और कार्यशाला प्रयोगशालाएं शामिल थीं, जिनसे कार्यक्रम के संचालन में मदद मिली।"



रामगढ़ इंजीनियरिंग कॉलेज में क्षमता निर्माण पर 5 दिवसीय बूटकैंप लगा

रजरप्पा (प्रातः आवाज)। मुरुबंदा स्थित रामगढ़ इंजीनियरिंग कॉलेज में 18 से 22 अक्टूबर तक इलेक्ट्रॉनिक्स इंजीनियरिंग विभाग, आईआईटी (आईएसएम) धनबाद द्वारा आयोजित कार्यक्रम मानव रहित हवाई प्रणाली, सेंसर और संचार के लिए इलेक्ट्रॉनिक्स पर बूटकैंप का आयोजन किया। आइईसी की प्राचार्या डॉ शरबानी राय ने बताया कि हमारे संस्थान का मानना है कि



इस तरह के बूटकैंप से इंजीनियरिंग के छात्रों को तकनीकी दुनिया से जुड़ने का मौका मिलता है। आइईसी के उपप्राचार्य डॉ नजमुल इस्लाम ने कहा कि हम अपने छात्रों को इस तरह के कार्यक्रम देने के लिए बहुत इच्छुक हैं, ताकि वे वास्तविक समय के समाज से तालमेल बिठा सकें। पांच दिवसीय ड्रोन टेक्नोलॉजी बूटकैंप के समापन पर क्षमता निर्माण के लिए मानव संसाधन विकास के प्रधान अन्वेषक डॉ रवि कुमार गंगवार ने कॉलेज के प्राचार्य, प्रोफेसरों और कर्मचारियों द्वारा दिए गए अमूल्य सहयोग के लिए हार्दिक आभार व्यक्त किया। डॉ गंगवार ने कहा कि रामगढ़ इंजीनियरिंग कॉलेज के प्राचार्य और प्रोफेसरों, कर्मचारियों के अटूट समर्थन के बिना इस बूटकैंप की सफलता संभव नहीं थी। मौके पर डॉ जयसिंह थंगराजन, डॉ सम्राट मुखोपाध्याय, डॉ अभिषेक ग्रोवर, डॉ वरुण चौधरी, कुंदन कुमार सुमन, डॉ आशीष नारायण, डॉ अयनी नंदी, पल्लव दास, नीलेश कुमार, कमल अहमद, श्रेयोशी भट्टाचार्य, मोनी चंद्रा, विशाल साव, आकाश कुमार, डॉ. बागेश बिहारी आदि मौजूद थे।

आइआईटी आइएसएम में फोटोनिक्स के बायोसेंसिंग एप्लिकेशन पर कार्यशाला शुरू

धनबाद. फोटोनिक्स के बायोसेंसिंग एप्लिकेशन पर आइआईटी (आइएसएम) में गुरुवार से तीन दिवसीय कार्यशाला शुरू हो गयी। कार्यशाला में देश भर के तकनीकी संस्थान और अनुसंधान प्रयोगशालाओं के विशेषज्ञ एकत्र हुए और पर्यावरण अनुप्रयोगों पर फोटोनिक प्रौद्योगिकी-आधारित सेंसर की भूमिका, एकीकृत ऑप्टिकल बायोसेंसर और स्वास्थ्य देखभाल अनुप्रयोगों के लिए वेबफलेक्स बायोसेंसर आदि सहित विभिन्न पहलुओं पर चर्चा की। इस दौरान प्रतिभागियों ने संस्थान के फाइबर ऑप्टिक सेंसर लैब द्वारा बनाया गया विभिन्न फाइबर केबल, ऑप्टिकल फाइबर हैडलिंग का अवलोकन किया। उद्घाटन समारोह में डीन (अकादमिक) प्रो एमके सिंह ने कहा कि जानकारी प्राप्त करने और ज्ञान प्राप्त करने के बीच एक बड़ा अंतर है। उन्होंने लगातार

प्रयासों के माध्यम से जानकारी को ज्ञान में बदलने की आवश्यकता पर जोर दिया। उन्होंने कार्यशाला के प्रतिभागियों और आयोजकों को यूटीआई के इलाज के लिए फोटोनिक्स के अनुप्रयोग का पता लगाने का सुझाव दिया। गेस्ट ऑफ ऑनर डॉ श्रीनिवास तालाबतुला (प्रोफेसर आइआईएससी बैंगलोर) ने कहा "ज्ञान प्राप्त करने के पहले चरण के रूप में, किसी को भी पुस्तकों, सॉफ्टवेयर वेबसाइटों, प्रासंगिक सामग्रियों को डाउनलोड करने आदि के माध्यम से किसी भी विषय का स्व-शिक्षण करना चाहिए. प्रो. रवि कुमार गंगवार, प्रमुख, इलेक्ट्रॉनिक्स इंजीनियरिंग विभाग ने अपने संबोधन के दौरान इलेक्ट्रॉनिक्स इंजीनियरिंग विभाग के इतिहास और बुनियादी ढांचे और विभाग द्वारा पेश किए जा रहे विभिन्न पाठ्यक्रमों का विवरण दिया. प्रो संजीव कुमार रघुवंशी ने स्वागत भाषण दिया.

THE INTEGRITY PLEDGE



Department of
Electronics Engineering
conducted Integrity
Pledge on the occasion
of Vigilance Awareness
Week on 28th October .



ECE Dept | 28 October 2024 at 11:06 am



ECE Dept | 28 October 2024 at 11:04 am

Achievements



Prof. Rahul Bhattacharya developing a new research lab namely "**Analog Mixed Signal (AMS) Test, Modeling and Emulation Lab [ATMEL]**", With The funding support from Analog Devices India Pvt. Ltd. under the aegis of ADI Innovation Fellowship Grant.

This lab focuses on the following research areas.

1. Emulation friendly modeling of Analog and Mixed-Signal (AMS) Circuits for Pre-Silicon verification.
2. Behavioral Modeling of RF Power Amplifier.
3. VLSI test automation using evolutionary and machine learning algorithms.



Prof. Manodipan Sahoo

1. Conferment of Fellowship of Institution of Engineers (IEI), India.
2. Editorial Board Member, Scientific Reports, Springer Nature.

Prof. S. K. Raghuwanshi

1. Appointed as "Topical EDITOR" of APPLIED OPTICS (OSA-OPTICS, USA) Journal.
2. Conferment of "Fellow of IETE".





Dr. Anil Rajput, one of our Institute Post-Doctoral Fellows (IPDF), was honored with the prestigious “Young Scientist Award” at the URSI Regional Conference on Radio Science (RCRS) 2024, held in Bhimtal, India. Dr. Anil Rajput is currently conducting research under the supervision of Prof. Ravi Kumar Gangwar, HoD, in the Department of Electronics Engineering. At the conference, he presented his research paper titled "A Circularly Polarized Cylindrical Dielectric Resonator Filtenna for Vehicular Applications," which highlights his contributions to advanced antenna technology for Dedicated Short-Range Communications (DSRC) to enhance vehicular communication systems.

AMTA - Antenna Measurement Techniques Association **Eric Walton Student Travel Awards** are presented to:

- ★ **Karthik Gugulothu**, Indian Institute of Technology (Indian School of Mines), Dhanbad, India.
- ★ Shriya Kapoor, Georgia Institute of Technology, USA.
- ★ Eros Ciccarelli, Università degli Studi di Napoli Federico II, Italy.

The Eric Walton Student Travel Award is designed to encourage students interested in electromagnetics with an emphasis on antennas. It is open world-wide to undergraduate juniors and seniors as well as Masters and first year PhD students.

Welcome

DR YERICHARLA MARY ASHA LATHA

Assistant Professor

Dr. Yericharla Mary Asha Latha has recently joined the Department of Electronics at IIT (ISM) Dhanbad as an Assistant Professor. Before this, she served as a Postdoctoral Research Associate at the University of Sheffield, United Kingdom, from August 2023 to August 2024. Prior to that, she worked as a Postdoctoral Fellow at the Instituto de Telecomunicações, Aveiro, Portugal, from November 2021 to March 2023. Dr. Y. M. Asha Latha received her Ph.D. in Electronics and Communication Engineering from IIT Roorkee in July 2021 and completed her M.Tech. from the National Institute of Technology (NIT) Hamirpur in 2015, where she was awarded the Gold Medal. She was honored with the Student Best Paper Award at IEEE/MTT-S International Microwave and RF Conference (IMaRC) 2019 and was a finalist in the Early Career Paper Competition at the prestigious IEEE/MTT-S International Microwave Symposium (IMS) 2023. Her research focuses on RF circuit design, with a particular emphasis on waveform-engineered RF power amplifiers up to millimeter-wave frequencies, utilizing GaN MIC and MMIC technologies. Dr. Y. M. Asha Latha has served as a reviewer for numerous IEEE transactions, conferences, and IET journals. Her work has led to 16 publications in IEEE transactions, journals, and conferences, as well as a patent grant.



CONTACT

Department of Electronics
Engineering, Room No. 634-B
Indian Institute of Technology
(Indian School of Mines) Dhanbad,
Jharkhand, India, 826004.

Email: ymashalatha@iitism.ac.in,
ymashalatha@ieee.org

LinkedIn: [mary-asha-latha-
yericharla-189152b5](https://www.linkedin.com/in/mary-asha-latha-yericharla-189152b5)

ORCID: 0000-0001-6750-8755

Publication

P. Kumar, R. K. Ranjan and S. -M. Kang, "Memristor-Emulating-Integrate-and-Fire Neuron-Based Fully Neuromorphic Framework for Pattern Recognition," in IEEE Transactions on Circuits and Systems II: Express Briefs, doi: 10.1109/TCSII.2024.3439687.



OPPORTUNITY

Applications are invited for admission to Ph.D. Programme Full Time and Part Time Ph.D under "**Visvesvaraya Ph.D. Scheme**" sponsored by MEITY for Monsoon Semester-2024 in the Department of Electronics Engineering and Department of Computer Science and Engineering at IIT(ISM) Dhanbad.

Important Dates:

Last date for receipt of application form. 17/11/2024 (Full-time) & 15/11/2024 (part-time)

Date of intimation to shortlisted candidates for interview. 19/11/2024

Date and time of interview. 27/11/2024

Application form, Guidelines, Terms & Conditions for full-time are available at IIT(ISM) Dhanbad website.

EDITORIAL TEAM

Prof. Jeevesh Kumar

Mr. Bappa Ghosh

Mr. Vaibhav

Find out more

<https://electronics.iitism.ac.in/>

DEPARTMENT OF ELECTRONICS ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY
(INDIAN SCHOOL OF MINES) DHANBAD
826004
JHARKHAND, INDIA
PHONE: +91-326-223 5274