The Institution of Engineers (India)

" A Century of Service to the Nation"

39th National Convention of Electronics & Telecommunication Engineers

&

National Conference on "Internet of Things (IoT) reconnecting the world"

February 14- and 15, 2025

Organized by

The Institution of Engineers (India)
ROURKELA LOCAL CENTRE

with association with National Institute of Technology Rourkela and SAIL, Rourkela Steel Plant

Knowledge Partners

IISc Bangalore
IIT Kharagpur
IIT Bhubaneswar
IIT Delhi
IIT Dhanbad
IIT Patna
DRDO

Venue
Rourkela Local Center Conference Hall, Inside National Institute of Technology Rourkela Campus

ABOUT THE INSTITUTION OF ENGINEERS (INDIA)

The Institution of Engineers (India) or IEI is the largest multidisciplinary professional body that encompasses 15 engineering disciplines and gives engineers a global platform for sharing professional interest. IEI has membership strength of above 2.6 Lacs. Established in 1920, with its headquarter at 8 Gokhale Road, Kolkata-700020, IEI has served the engineering fraternity close to a century. During this period of time, IEI has been inextricably linked with the history of modern-day engineering.

In 1935, IEI was incorporated by Royal Charter and remains the only professional body in India which has been accorded this honour. Today, its quest for professional excellence has given it a place of pride in almost every prestigious and relevant organization across the globe. It provides a vast array of technical, professional and supporting services to the Government, Industries, Academia and the Engineering fraternity, operating through its 124 Centres located across the country and 6 overseas chapters. Besides, IEI has bilateral agreements with about 31 international bodies and membership of another 8 international bodies of the developed nations across the globe.

Being recognized as a Scientific and Research Organisation (SIRO) by the Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India, IEI promotes the cause of research and development by providing Grant-in-Aid support to undergraduate, post graduate students and PhD Research Scholars of Engineering Institutions and Universities.

IEI has been recognized as Scientific and Industrial Research Organization (SIRO) by the Ministry of Science & Technology, Government of India and besides conducting its' own research, provides Grant-in-Aid to UG/PG/PhD students of Engineering institutes and Universities.

IEI holds the International Professional Engineers (IntPE) Register for India under the global International Professional Engineers Alliance (IntPEA). The institution also awards the Professional Engineers (PE) Certification.

IEI in collaboration with Springer regularly publishes peer-reviewed international journal in five series, namely, Series A, Series B, Series C, Series D and Series E covering fifteen engineering disciplines.

ABOUT THE ROURKELA LOCAL CENTER

The Rourkela Local Centre of the Institution of Engineers (India) was established on 24th November, 1964 to build up the personalities and to exchange the ideas amongst various Scientist, Engineers and Technocrats for promotional activities of different engineering professions and to promote various engineering and technical activities with the patronage of Rourkela Steel Plant and National Institute of Technology, Rourkela, the most ideal combination for a local Centre of the largest professional body of the country. Since then it has grown in size as well as has fulfilled the basic goals of IEI. Its strength as on 31.06.2024 is 1131 Corporate Members. The centre gas been actively engaged in voicing its concerns to face challenges to emphasize on the engineers' role in society and engineers as managers. In addition to having regular paper meetings in all fields of engineering and technology, the Local Centre in the past had successfully organized three National Conventions and several All India Seminars and Science Exhibition for school children.

The Local Centre was functioning at the Regional Engineering College, Rourkela from its inception. However, with the savings from the AMIE coaching classes over a long period and grant from HQ and patronage of members, it was possible to start the construction of its own building which was inaugurated on 28th March, 1993. However, the Seminar Hall could be completed in February 2007 and the guest house could be completed in 2012. In recent times the Local Centre has made some additions to its facilities viz., separate room for office bearers, one more room added to the guest house and one more lecture hall to facilitate technical activities.

We have been consistently receiving cooperation and patronage from the authorities of Rourkela Steel Plant and National Institute of Technology, Rourkela to pursue our technical activities. We have been organizing Engineers' Day every year in a grand way with the in association with Rourkela Steel Plant. The various departments of National Institute of Technology, Rourkela are also extending their association to organize the national level seminars and conferences. Rourkela Local Centre takes this momentous occasion to express its heartfelt gratitude to these two illustrious organizations for their continuous patronage.

THEME

The Internet of Things (IoT) is increasingly seen as a transformative force that is "reconnecting the world" by making everyday objects smarter, more communicative, and more integrated into the digital landscape. By embedding sensors, software, and network connectivity into physical devices, IoT enables them to collect, exchange, and act on data in real time, leading to new levels of efficiency, convenience, and insight across various industries. IoT has revolutionized the way we interact with our homes. Through connected devices like thermostats, lighting systems, security cameras, and voice assistants, homeowners can remotely control their environments, monitor energy usage, and even enhance home security. These devices communicate with each other and adapt to the needs of the user, improving comfort and reducing energy costs. In healthcare, IoT devices, such as wearables (fitness trackers, smartwatches) and medical sensors, enable continuous monitoring of patients' vital signs. Think-to-speech interface is a biggest step of IOT. This constant stream of data helps doctors make real-time decisions and can improve long-term outcomes for patients with chronic conditions. IoT also facilitates telemedicine, where patients and doctors can interact through connected devices, overcoming geographical barriers and reducing the strain on healthcare systems. IoT is a key enabler of smart city initiatives, where urban infrastructure is connected to optimize everything from traffic flow to energy distribution. For example, smart traffic lights can adapt to real-time traffic conditions, reducing congestion and pollution. IoT sensors in waste bins can notify authorities when they need to be emptied, making waste collection more efficient. Additionally, environmental sensors can help monitor air quality, water levels, and other factors to enhance city living conditions. In industrial settings, IoT plays a crucial role in the concept of "Industry 4.0," where factories, machines, and even entire supply chains are interconnected to improve productivity, reduce downtime, and enhance safety. Through predictive maintenance, IoT devices can monitor the health of machinery and alert technicians to potential issues before they lead to costly breakdowns. Automation systems can be adjusted in real-time based on data, increasing efficiency and flexibility in manufacturing processes. While IoT has already made significant strides, its full potential is still being realized. In the future, IoT is expected to become even more integrated into daily life, with advancements in 5G networks, edge computing, artificial intelligence (AI), and machine learning enabling faster, more reliable, and intelligent systems. As IoT devices become more autonomous and self-optimizing, they will further blur the lines between the physical and digital worlds, creating new opportunities for innovation across industries and improving quality of life.

The proposed national convection objective is to gather process communication professionals to discuss various challenges associated with processing of interface and responsible for the communication enhancement. Professor from IITs, NITs and Professional from industries related to Electronics and telecommunication engineering, Communication engineering, Computor Engineering and other interdisciplinary engineering will come to fulfil the proposed objectives.

SUB-THEMES

Internet of Things (IoT)	**Smart System**
Communication	**Real time activities**
Thinking Interface	**Control Units**
Brain and Neural system operation	**Cloud computing**
Think-to-Talk and Talk-to-Think	**Availability of big data**
Biological to digitation interface	**Networking connection**
Encoding of biological response	**Smart networks**
Attached Electronic devices	**Collect and Transmit Data**
Industry 4.0	**Big data**
Industry 5.0	**Cloud computing**
Sensor and Actuator	**Artificial Intelligence and Machine Learning**

CALL FOR PAPERS

Prospective authors are invited to submit manuscripts reporting original unpublished research and recent developments in the topics related to the theme of the National Convention but not limited to sub-themes listed above.

Authors should send an Abstract up to 300 words to ajitbehera.editorial@gmail.com. The final paper should be in the format available on website (https://2025-nciot.ieirkl.in/). All presented papers will be published in the international journal (SCI/Scopus).

For Guidelines for Submission of Papers scan the QR Code

https://www.ieindia.org/webui/IEI-Activities.aspx#Call_Papers

IMPORTANT DATE FOR PAPER PUBLICATION

Abstract Submission	30th Jan, 2025
Acceptance of Abstract	31st Jan, 2025
Registration date	01st Feb, 2025
Publication of Abstract Proceeding with ISBN	14th Feb, 2025
Submission of Full Paper (for SCI/Scopus journal)	20th Feb, 2025
Communication of accepted paper	28th Feb, 2025

MEMBER/DELEGATES REGISTRATION FEE

	Early bird (before 01st Feb, 2025)	**Late (After 01st Feb, 2025)**
IEI Member	**INR 3500 /-**	**INR 4000 /-**
NON IEI Member	**INR 4500 /-**	**INR 5000 /-**
Research Scholar/Student	**INR 4000 /-**	**INR 4500 /-**
Spouse of Delegate	**INR 2500 /-**	**INR 3000 /-**

* GST 18 % applicable extra

SPONSORS

The sponsors are entitled to free delegates one full page advertisement and a logo display

Platinum Sponsor	**INR 3,00,000/- 12 free Delegates & Full Page Advertisement**
Gold Sponsor	**INR 2,00,000/- 8 free Delegates & Full Page Advertisement**
Silver Sponsor	**INR 1,00,000 /- 6 free Delegates & Half Page Advertisement**
Bronze Sponsor	**INR 75,000 /- 5 free Delegates**

* GST 18 % applicable extra

SOUVENIR ADVERTISEMNETS

you may also give wide publicity of your products in our souvenir that will be released on the occasion. the following are the advertisement rates:

Outside back cover page (Multicolour)	**INR 50,000 /- (4 Free delegates)**
Inside front & Back Cover (Multicolour)	**INR 40,000 /- (3Free delegates)**
Inside full page (Multicolour)	**INR 25,000 /- (2 Free delegates)**
Inside full page (Black & White)	**INR 15,000 /- (2 Free delegates)**
Half page (Colour)	**INR 10,000 /- (1 Free delegates)**
Half page (Black & White)	**INR 5,000 /- (1 Free delegates)**

An exhibition is planned to be arranged as part of this conference for the two days. Stalls of size 10 feet x 10 feet will be provided for display of various products related to the theme of the conference. One free registration will be provided for the sponsors of each exhibition stall. Additional details will be provided later. Twenty numbers stall will be provided as per the first come first service basis within date 10st Feb, 2025.

Stall size	**Amount**	**Free Delegates**
10 x 10 feet	**Rs 40,000 /-**	**1**

* GST 18 % applicable extra

For Exhibition Registartion:

Exhibition stall	**INR 4,500 /-**

TRAVEL & ACCOMMODATION

All delegates are advised to make their own arrangements for travel, boarding & lodging. All the contact information of nearer hotel to the venue will be provided prior to the convention date.

REGISTARTION KIT & FOODING

Registration kit containing Trolley bag, Conference Memento, Abstract Book, Pendrive containing useful materials, and other will be added as per the sponsorship. Two days working lunch will be arranged.

NATIONAL ADVISORY COMMITTEE

Chairman: Er. V. B. Singh, FIE, President, IE(I)

Co-Chairperson: Dr (Ms) Gunnu Padmavathi, Chairperson, ETDB

Er. Gopal Krishna Nair, FIE, Vice President, IE(I)

Prof (Dr) Girish Shrikisan Mundada, FIE, Vice President and Member ETDB

Prof (Dr) Ms Shilpa Tripathi, FIE, Chairperson CATE

Dr. Aloknath De, Member, ETDB

Er. Santoshkumar Surajmal Mutha, Member, ETDB

Er (Ms) T Shanthi, Member, ETDB

Dr. Nutan Kumar Dash, Immediate Past Vice president and council member- IE(I)

Er. Santosh Kumar Polaki, Chairman, IEI Rourkela Local Center

Captain Prof. (Dr.) Ajit Behera, Honorary Secretary, IEI Rourkela Local Center

ORGANISING COMMITTEE

Chairman: Er Santosh Kumar Polaki, FIE, Chairman, Rourkela Local Centre

Organizing Secretary: Captain Prof. (Dr.) Ajit BEHERA, MIE, Honorary Secretary, IEI Rourkela Local Center

Convener: Dr. Santosh Kumar Das, FIE

Patron: Prof. K. Umamaheswar Rao, Director, NIT Rourkela

Co-Patron: Director-in-Charge, RSP, SAIL

Members   Dr. Nutan Kumar Das, Council Member, OSC & Imd. Past VP IE(I)
                            Shri Ajay Kumar Goswami, Imd. Past Chairman
                            Dr. Rama Chandra Pradhan, Imd. Past Honorary Secretary
                            Dr. Santos Kumar Das, Committee Member, IEI Rourkela local center
                            Dr. Rachna Sehrawat

Dr. Saroj Kumar Patel
Dr. Hara Mohan Jena
Dr Satosh Kumar Sahoo
Dr. Ramesh Kumar Mohapatra
Sri Himansu Satapathy
Shri Adil Mohammed
Shri Diptankar Mahapatra
Dr. Ratnakar Swain
Dr Susmita Das
Dr. Anil Kumar Barik
Shri Chitrasen Tajan

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Chairman : Prof. Poonam Singh, HOD, NIT Rourkela, FIE

Co Chairman : Dr. Ajit Behera, MIE

Members : Shri Adil Mohammed, FIE
       Shri Diptankar Mahapatra, FIE
       Dr. Ratnakar Swain, MIE
       Dr. Anil Kumar Barik, MIE
       Shri Chitrasen Tajan, MIE
       Dr. Debiprasad Priyabrata Acharya, MIE
       Dr. Ajit Kumar Sahoo, MIE

PAYMENTS

All payments are to be made through Cheque/ NEFT/Demand Draft, drawn in favour of "The Institution of Engineers (India), Rourkela Local Centre" payable at Rourkela.

Bank Details:

Name of Beneficiary: The Institution of Engineers (India) Rourkela Local Centre

Name of Bank: State bank of India

A/c No: 00000010138951036

IFSC Code: SBIN0002109

CONTACT

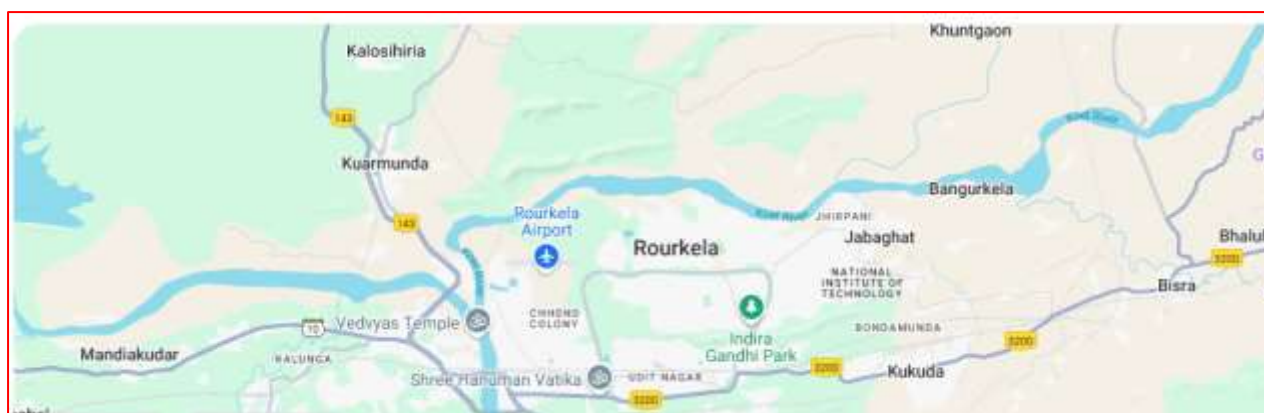|		
Name of the contact person	:	Dr Ajit Behera, Honorary Secretary Rourkela Local Centre
Address of the Centre	:	The Institution of Engineers (India),
Phone	:	9938383765
Email	:	rourkelalc@ieindia.org

SIGHT VISIT NEARER TO THE VENUE

Transportation will be arranged as per the advanced payment basis at the registration counter.

CLIMATE OF ROURKELA IN FEBRUARY

The average temperature in Rourkela in February for a typical day ranges from a high of 31°C to a low of 17°C. Stay cool by wearing light clothing and drinking plenty of water throughout the day.

GEOGRAPHIC LOCATION

Authors Abstract submission: https://forms.gle/VfS7Yp77KhgpdmJz9 (Last Date 1st Feb, 2025)

Authors Final Registration Link: https://forms.gle/8waK8AH3SEhMZLpx8 (Last Date 8th Feb, 2025)

Sponsor Registration: https://forms.gle/GpRK6AocA5QpicNLA (Last Date 1st Feb, 2025)

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National Seminar on Internet of Things (IoT) reconnecting the world

The Institution of Engineers (India), Rourkela Local Centre

14-15th Feb, 2025

<u>REGISTRATION FORM / ADVERTISEMENT BOOKING FORM</u>

The Honorary Secretary
The Institution of Engineers (India)
Rourkela Local Centre
NIT Rourkela Campus,
Odisha-769008

Name …………………………………………Memb No…………………………….

Designation ………………………………………………………………………………

Organization ………………………………………………………………………………..

Address for Communication …………………………………………………………….…
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Phone…………………………..(O)………… ……………..(R) (Mob)……………………..

Email…………………………………………………………………………………………..

DD/Cheque No …………………. Dated………………for Rs …………………………….

Rupees (……………………………………………………………………………………………
…………………………………………………………………) is enclosed towards

Sponsorship /Advertisement/Delegate fee.

Transaction ID/UTR No./ PaymentReference No. _____

Transaction Date_____

Amount (Rs) _____

Date ………………………..   Signature ……………………

*DD / Cheque drawn in favour of **"The Institution of Engineers (India) Rourkela Local Centre"** Odisha. Out station Cheques should include Rs.50/- extra towards Bank Charges. At par Cheques are acceptable.