

First Information Brochure
The Institution of Engineers (India)
A Century of Service to the Nation

ONE DAY WORKSHOP ON
“AI-DRIVEN INNOVATIONS
IN RENEWABLE ENERGY
SYSTEMS”

July 16, 2026 Chennai
Organized by



The Institution of Engineers
(India)
Tamil Nadu State Centre

Under the Aegis of
Electrical Engineering Division
Board, IE(I)

In association with



R.M.K. ENGINEERING COLLEGE

Venue

R.M.K. ENGINEERING COLLEGE

R.S.M. Nager, Kavaraipettai, Gummidipoondi Taluk,
Tiruvallur District, Tamilnadu, India, Pin Code: 601 206

ABOUT THE INSTITUTION OF ENGINEERS (INDIA)

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

In 1935, IE(I) 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, IE(I) 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, IE(I) 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.

IE(I) 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.

IE(I) 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.

IE(I) 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. For further details, please refer www.ieindia.org

ABOUT TAMILNADU STATE CENTRE

The TamilNadu State Centre was established originally as the Southern India Centre at Chennai on 22nd December 1922. The Southern Region covered the erstwhile Madras, Andhra, Mysore, Hyderabad and Travancore – Cochin. As more centres were opened in the Southern Region, it was renamed as Madras Centre and later became the TamilNadu State Centre. TamilNadu State Centre has a special significance in the formation of the Institution; for the IE(I) was registered in 1920 in the then Madras Province at Chennai. The registered office was subsequently moved to Calcutta the Head Quarters of IE(I). The Chief Guest for the Inaugural Function of the Annual General Session of IE(I) Madras Centre in 1959 was

Thiru K Kamaraj, Chief Minister of TamilNadu. The TamilNadu State Centre is the most active centre in the country and has been serving the society in general and the engineering community in particular with the said objectives and plays a significant role in dissemination and proliferation of knowledge amongst its members. With a modest membership to start with, the centre has brought into its fold a large section of fraternity with a membership strength of more than 30000 Corporate Members and more than 80000 Non – Corporate Members widening its horizon of technical activities. The centre has established sixteen Local Centres at Neyveli, Madurai, Coimbatore, Tiruchirappalli, Salem, Kalpakkam, Ranipet, Tuticorin, Hosur, Kanyakumari, Tirunelveli, Thiruvallur, Kanchepuram, Thanjavur, Erode and Kattankulathur to serve more professional groups. The major activities of the Division include: Annual National Conventions, Annual & Semi-Annual Paper Meetings, Publication of Journals, Workshops / Seminars and Symposia and Prizes and Awards.

ABOUT RMK ENGINEERING COLLEGE

R.M.K. Engineering College is one of the premier autonomous engineering institutions in Tamil Nadu, committed to providing quality technical education with strong ethical values and industry-oriented learning. Established with the vision of nurturing competent engineers and responsible citizens, the institution has earned a distinguished reputation in academics, research, innovation, and placement excellence. Located in Chennai, the college offers a vibrant academic environment with state-of-the-art infrastructure, modern laboratories, smart classrooms, research centers, innovation hubs, and well-equipped libraries that support advanced learning and technological development. The institution is affiliated with Anna University and approved by AICTE, while several departments are accredited by NBA, reflecting its commitment to continuous academic excellence. R.M.K. Engineering College provides undergraduate, postgraduate, and doctoral programs across various disciplines of engineering, technology, and management. The college strongly emphasizes outcome-based education, interdisciplinary research, entrepreneurship, and industry collaboration to prepare students for global challenges and emerging technologies. The institution actively promotes research and innovation through funded projects, patents, consultancy activities, incubation support, and collaborations with industries and research organizations. Students and faculty members regularly participate in national and international conferences, workshops, hackathons, FDPs, and technical competitions to enhance their professional competencies. Apart from academics, the college encourages holistic student development through technical clubs, professional societies, cultural activities, sports, community engagement, and leadership initiatives. Various professional chapters such as IEEE, ISTE, IET, and innovation councils play a vital role in enhancing technical exposure and teamwork among students. With an excellent placement record, strong industry interaction, dedicated faculty members, and a disciplined learning atmosphere, R.M.K. Engineering College continues to contribute significantly to engineering education

and societal development by producing skilled, innovative, and ethically responsible professionals.

ABOUT THE THEME:

The One-Day Workshop on AI-Driven Innovations in Renewable Energy Systems is designed to explore the intersections of Artificial Intelligence (AI) and renewable energy technologies, highlighting how AI is transforming the way we generate, manage, and optimize sustainable energy. As the world moves toward cleaner and smarter energy solutions, integrating AI into renewable systems is becoming increasingly critical for improving efficiency, reliability, and scalability. This workshop will provide participants with a hands-on understanding of AI applications in renewable energy, including predictive analytics for solar and wind power generation, energy demand forecasting, smart grid management, and AI-based optimization of energy storage systems. Through interactive sessions, participants will engage in discussions and demonstrations that showcase real-world implementations, emerging trends, and innovative solutions at the intersection of AI and renewable energy.

The program also emphasizes practical skill-building, offering insights into how AI can enhance operational efficiency, reduce downtime, and support sustainable energy management. Participants will gain knowledge on leveraging machine learning algorithms, IoT-enabled systems, and data-driven decision-making to address current challenges in the renewable energy sector. By fostering collaboration between students, researchers, and industry professionals, this workshop aims to inspire innovative thinking, problem-solving, and adoption of AI-enabled technologies. Ultimately, the workshop seeks to equip attendees with the knowledge and tools needed to contribute to the development of intelligent, sustainable, and future-ready renewable energy systems, supporting both national and global energy sustainability goals.

SUB THEMES:

1. AI in Renewable Energy Generation: Predictive modeling for solar and wind power to optimize efficiency.
2. Energy Demand Forecasting: Using AI and data analytics to anticipate consumption patterns.
3. Smart Grid Optimization: AI-driven management for reliable and efficient energy distribution.
4. Energy Storage Management: Enhancing battery and storage system performance with AI algorithms.
5. IoT Integration: Leveraging connected devices for real-time monitoring and control.
6. Machine Learning Applications: Data-driven approaches for operational decision-making and system improvement.
7. Case Studies & Innovations: Industry examples demonstrating sustainable, scalable, and intelligent energy solutions.

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 workshop but not limited to sub-themes listed above.

Authors should send an Abstract up to 300 words to toieitamilnadu@gmail.com. The final paper should be in the format available on website (ieindia.org). All presented papers will be included in the proceedings of the workshop.

For Guidelines for Submission of Papers scan the QR Code..



[https://www.ieindia.org/webui/IE\(I\)Activities.aspx#Call_Papers](https://www.ieindia.org/webui/IE(I)Activities.aspx#Call_Papers)

IMPORTANT DATES:

Last Date for submitting Abstracts	01.07.2026	Wednesday
Intimation of Acceptance	03.07.2026	Friday
Submission of full paper with Registration Fee	06.07.2026	Monday
Workshop Date	16.07.2026	Thursday

REGISTRATION:

All delegates and authors attending workshop must register by filling registration form and by paying registration fees by 10th July 2026 as per following details:-

- Non Members : Rs 750+18%GST = Rs 885/
- Corporate Members of IE(I) : Rs 500+18%GST = Rs 590/-
- Students : Rs 300+18%GST = Rs 354/-

Registration fee includes proceedings, Souvenir, registration kit beside Lunch and high tea.

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A Souvenir containing abstracts of Invited talks and Technical papers will be published during the workshop. Tariff for advertisement in souvenir is as follows:-

Outside Back Cover Page (colour)	:	Rs. 50000 + 5% GST
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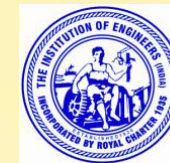
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The Institution of Engineers (India)

Tamil Nadu State Centre

One Day Workshop on

AI-Driven Innovations in Renewable Energy Systems

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