



IEI NEWS

Reports of 40th Indian Engineering Congress

1-15

Green Energy Technologies and AI-Enabled.....

16

Green India Mission

18

Data-Driven Lean: Leveraging Smart Manufacturing.....

20

Reports of World Habitat Day 2025

23

Reports of World Standards Day 2025

25

Reports of Engineers' Day 2025

28

IEI Diary

34

A CENTURY OF SERVICE TO THE NATION

Volume 32

Number 10

40th Indian Engineering Congress, Durgapur Innovative Engineering Solutions for Viksit Bharat@2047

The 40th Indian Engineering Congress of The Institution of Engineers [India] was hosted by Durgapur Local Centre, IEI on the theme **Innovative Engineering Solutions for Viksit Bharat@2047** during December 19-21, 2025 at the National Institute of Technology Durgapur with the objective to promote knowledge dissemination and the exchange of ideas among



professionals, foster innovation and research, encourage interdisciplinary collaboration, support National Development Goals and to strengthen professional networking.

IEI Excellence Award 2025

The 40th Indian Engineering Congress commenced on 19 December 2025 with the IEI Excellence Award Function. The Award Ceremony represents collaboration between industry and academia, reinforcing their shared



commitment to innovation and sustainability. Recognition through IEI Excellence Awards underscores the importance of fostering industrial competitiveness enhancing the academic reputation of engineering institutions that lead in motivating excellence in performance.

Shri Pranab Kumar Ghosh, WBCS [Executive], Chairman & Managing Director, South Bengal State Transport Corporation graced the function as the Chief Guest. Prof Aravind Choubey, Director, National Institute of Technology Durgapur was present on the dais as the Guest of Honour. Er VB Singh, the then President, IEI and Er Manish Mahendra Kothari, then President-Elect, IEI and now President of IEI also graced the occasion with their august presence.

The event started with the welcome address delivered by Secretary & Director General, IEI.

Er Manish Mahendra Kothari, now President IEI, opined that engineering is a force that shapes infrastructure, strengthens industry, and advances the education and society at large. Er VB Singh, Immediate past President, IEI in his address mentioned about the responsibility, sustainability and nation building bestowed upon the engineering fraternity.

The Awards were presented to the industry leaders and the heads of the academic institutions, who have achieved the benchmarks of the excellence in Overall Performance and also the Excellence in different categories, which include Financial Performance, Research and Development, Publications, Industry-academia interface and so on.

The IEI Industry Excellence Awards were presented to the industries in the category Engineering Manufacturing and Processing, Engineering Organizations in Construction industry and Engineering Services and Consultancy.



The IEI Engineering Education Excellence Awards were presented to the Engineering Colleges and Institutions, Polytechnics, Women Engineering Colleges and Institutions.

Contd. on page 2

Innovative Engineering Solutions for Viksit Bharat@2047

Contd. from page 1

The event received a total of total 53 nominations, 24 nominations in industry and 29 nominations in engineering education.

For **IEI Industry Excellence Award 2025** under the category **Engineering Manufacturing and Processing**, the following industries were recognized for their **Excellence in Overall Performance**.

J K Tyre and Industries Limited, Chennai Tyre Plant

Steel Authority of India Limited, Salem Steel Plant

Hindustan Copper Limited Kolkata

Electronics Corporation of India Limited, Hyderabad

Avantel Limited, Hyderabad

HLL Lifecare Limited, Peroorkada Factory, Thiruvananthapuram

Mageba Bridge Products Private Limited, Kolkata

Global Engineers Limited, New Delhi

Marvelous Machinist Private Limited, Kolhapur

HLL Lifecare Limited, Akkulam Factory, Thiruvananthapuram

Further, under the category, **Engineering Manufacturing and Processing**,

HLL Lifecare Limited, Kanagala Factory, Belgaum was recognized for the **Excellence in Financial Performance**.

Under the category, **Engineering Organizations in Construction Industry**, the following industries were recognized for their **Excellence in Overall Performance**.

HCC VCGL Joint Venture, New Delhi

Techno Electric and Engg Co Limited, Kolkata

Under the category **Engineering Services and Consultancy**, the following industries were recognized for their **Excellence in Overall Performance**.

Aarvee Engineering Consultants Limited, Hyderabad

Engineers India Limited, New Delhi

Chhattisgarh State Power Transmission Co Limited, Raipur

Safran Data Systems Private Limited, Bengaluru

Electrical Research and Development Association, Vadodara

Avant Garde Systems and Controls Private Limited, Chennai

Further, under the category **Engineering Services and Consultancy**,

B&S Consultants Private Limited was recognized for **Excellence in Profile of Employee Base** and **Excellence in Research & Development**.

Epicons Consultants Private Limited was recognized for **Excellence in Financial Performance**.

RUKY Projects Private Limited was recognized for **Excellence in Financial Performance**.

TANDON Consultants Private Limited was recognized for **Excellence in Profile of Employee Base**.

For **IEI Engineering Education Excellence Award 2025**, following Engineering Institutions were recognized for their **Excellence in Overall Performance** in the Category **Engineering Colleges and Institutions**.

Indian Institute of Technology Kharagpur

Army Institute of Technology Pune

National Institute of Technology Meghalaya

Veltech Rangarajan Dr Sagunthala R&D Institute of Science and Technology, Chennai

Sona College of Technology Salem

Institute of Engineering and Management, Kolkata

Sri Ramakrishna Engineering College, Tamil Nadu

Lakireddy Bali Reddy College of Engineering, Bhimavaram

Jodhpur Institute of Engineering and Technology, Rajasthan

In the said category,

KES Rajarambapu Institute of Technology, Rajaramnagar and Siddaganga Institute of Technology, Karnataka were recognized for their **Excellence in Consultancy & R&D**.

RMK Engineering College, Tamilnadu and Vishwakarma Institute of Technology Pune were recognized for their **Excellence in Publication**.

Knowledge Institute of Technology, Tamil Nadu and Saranathan College of Engineering Tamilnadu were recognized for their **Excellence in Faculty Information**.

The following Engineering Institutions were recognized for their **Excellence in Industry-Academic Interface**.

Rajalakshmi Engineering College, Thandalam

Padmashri Dr V B Kolte College of Engineering, Malkapur

K Ramakrishnan College of Engineering, Samayapuram

Swami Kesavanand Institute of Technology, Management and Gramothan, Rajasthan and

KLS Vishwanathrao Deshpande Institute of Technology, Karnataka

Further, in the said category, Maharaja Surajmal Institute of Technology New Delhi was recognized for **Excellence in Infrastructure**.

In the category **Polytechnics**, the following institutions were recognized for their **Overall Performance**.

New Government Polytechnic Patna

Padmashri Dr V B Kolte College of Engineering Malkapur [Polytechnic College]

Thiagarajar Polytechnic College, Salem

METS Institute of Technology Polytechnic, Nashik

In the category **Polytechnics**, Rajaram Babu Institute of Technology [Polytechnic], Maharashtra was recognized for **Excellence in Publication**.

In the category **Women Engineering Colleges/Institutions**, the following institutions were recognized for their **Overall Performance**.

Shri Vishnu Engineering College for Women, Andhra Pradesh

BVRIT Hyderabad College of Engineering for Women

Further, the Awards for papers published in the IEI Springer Journals, Safety and Quality Award, SAIL, Coal and Visvesvaraya Awards and the Awards for the papers published in the Abhiyanta Bandhu were presented on the occasion.

The event concluded with Vote of Thanks by Secretary & Director General, IEI.

Inaugural Session

The Inaugural Session of 40th Indian Engineering Congress started with invocation and lightning of the lamp by the dignitaries on the dais followed by the welcome address delivered by Er Safikul Islam, Organizing Chairman, 40 IEC. Dr Ajay Kumar, Chairman, Union Public Service Commission, New Delhi graced the inaugural function as the Chief Guest. Shri S Suresh Kumar, IAS, Chairman, Damodar Valley Corporation; Mr Sanjay C Kirloskar,

Contd. on page 4

Address by



Er Manish Mahendra Kothari

President, IEI

Full text of the Presidential Address delivered by Er Manish Mahendra Kothari, President, IEI during the 106th Annual General Meeting of the Institution held in Durgapur on December 21, 2025

Distinguished Past Presidents, Hon'ble Council Members, Esteemed Corporate Members, Fellow Engineers, Ladies and Gentlemen,

It is a profound honour to stand before you this morning on 21 December, a date that quietly glows in the chronicles of scientific endeavour. On this very day in 1898, Marie and Pierre Curie first isolated radium, revealing a phenomenon that would change the course of physics, medicine and modern technology. And on 21 December 1968, Apollo 8 soared into space—the first human mission ever to leave Earth's orbit, circling the Moon and returning safely. These two achievements—one in the stillness of a laboratory, the other in the thunder of a Saturn V launch—remind us of the boundless horizons unlocked when science and engineering converge.

We gather today in Durgapur, a city that continues to embody the spirit of engineered ambition. Conceived as one of independent India's earliest planned industrial cities, Durgapur stands as a testament to what determined minds and coordinated engineering can accomplish. Its furnaces, rolling mills, power plants and technical institutes have long served as crucibles of innovation and industry. To meet here for the 106th AGM and the 40th Indian Engineering Congress is to reconnect with a living legacy of Indian engineering excellence.

As I take up the responsibility of President for the Session 2025–26, I extend my heartfelt gratitude to the Council, our Centres and State Centres, our Overseas Chapters, our Divisional Boards and Committees, our staff, and above all, our Corporate Members. Our website, www.ieindia.org documents our work, but the real IEI thrives in your dedication and your belief in the Institution.

Legacy

As we look to the future, it is essential to draw strength from the century-long legacy that defines The Institution of Engineers (India). Since its inception in 1920 and formal inauguration in 1921, IEI has grown from a small collective of pioneering engineers into a national Institution of unparalleled breadth and influence. From shaping early engineering standards and advising governments on industrial and infrastructural development, to guiding India's responses during wars, droughts and periods of reconstruction, IEI has been woven into the fabric of the nation's progress.

The conferment of the Royal Charter in 1935—one of the earliest such honours outside Britain—further elevated IEI as the custodian of professional ethics, engineering excellence and public trust and reminds us that IEI has repeatedly risen to national challenges with knowledge, courage and unity. This heritage is not merely a chronicle of past achievements; it is an enduring call to preserve and enhance the pride, dignity and stature of the engineering profession for decades to come.

The year ahead unfolds at a time of rapid transformation —artificial intelligence, advanced materials, green energy systems, resilient infrastructure, climate-responsive development and a renewed thrust in space exploration. India is also preparing for significant regulatory reforms in the engineering domain. In such a moment, IEI must not simply respond to change; it must help define the contours of an evolving profession.

Our Five Enshrined Priorities

1. Transform Membership into a Deeply Meaningful Value Experience

IEI's immediate responsibility is to strengthen the core services that directly support our members. Our extensive network of Centres, Divisional Boards, Fora and technical bodies provides a strong foundation for delivering consistent and dependable services across the country. Our priority is to ensure that every aspect of membership—enrolment, renewal, certification and all other interactions—becomes simpler, faster and more transparent. By streamlining workflows, improving turnaround times, strengthening ERP and membership portals, and bringing greater uniformity across Centres, we can create a reliable service ecosystem that meets the expectations of today's professionals. Enhancing responsiveness and improving communication are practical steps firmly within our reach.

2. Elevate IEI's Technical Activities into Engines of Thought Leadership

IEI's technical activities must reflect current industry needs and emerging opportunities. While our Divisions and Centres already conduct numerous events, there is substantial scope to align our programmes with areas of immediate demand—manufacturing, infrastructure, water resources, materials, safety, energy systems and ICT applications. Through closer collaboration with industry, academia and government bodies, Centres can develop hands-on workshops, refresher courses and region-specific training modules that address real skill gaps. Such initiatives will deepen IEI's technical relevance and strengthen our role in professional development nationwide.

3. Build a Credible, Modern and Respected System of Certification

IEI's role in certification and skill development now carries national significance. Our dual recognition by NCVET as an Awarding Body and Assessment Agency gives us a clear mandate to design qualification packs, develop assessment frameworks, certify professionals and support the country's skilling ecosystem. By coordinating the efforts of the National Skill Development Forum, Divisional Boards, ESCI and Centres, IEI can create industry-relevant certification programmes and assessment services that benefit technicians, supervisors and engineers across sectors. These are responsibilities we are structurally equipped to deliver, and their expansion will strengthen IEI's impact on workforce development.

4. Enhancing Digital Infrastructure for Institutional Efficiency

Digital modernisation remains fundamental to our progress. Much of IEI's service delivery—membership management, examinations, financial reporting, record-keeping and communication—depends on robust, secure and updated digital systems. Strengthening our ERP, ensuring data accuracy, improving cybersecurity and digitising Centre-level operations will lead to greater consistency and transparency across the Institution. These improvements are not theoretical constructs; they require disciplined implementation and sustained monitoring—well within IEI's organisational capability. A trustworthy Institution must operate on a trustworthy digital architecture, and building such an "Internet of Trust" is essential for delivering fair, efficient and accountable services.

5. Financial Strength—The Bedrock of Institutional Excellence

IEI's aspirations must rest on strong and stable financial foundations.

Contd. on page 8

Innovative Engineering Solutions for Viksit Bharat@2047

Contd. from page 2

Chairman and Managing Director of Kirloskar Brothers Limited, Pune and Lt Gen Rajiv Kumar Sahni, AVSM, VSM, PhD, DG EME & Col Comdt, Director General, Electronics and Mechanical Engineers graced the function as the Guests of Honour.

Er Manish Mahendra Kothari, the then President-Elect, IEI and now President, IEI, in his address, mentioned that India today stands on the cusp of a technological renaissance. Global competitiveness, energy transition, defence preparedness, food security, digital sovereignty, and environmental resilience, all hinge on engineering innovation. If science is the mind of progress, engineering is surely its beating heart.

Er VB Singh, the then President, IEI in his address said that the theme of the Congress is both visionary and urgent. He opined that when India prepares to step into its centennial year of independence with the ambition of becoming a developed, resilient, technologically leading nation, achieving this aspiration will require engineering solutions that are bold in imagination, meticulous in execution, and sustainable in outcome.

Guest of Honour, Shri Sanjay C Kirloskar, in his address spoke on the engineering excellence, growth and development of the legacy of Kirloskar Brothers. Shri Kirloskar emphasized import substitution and indigenous prime mover range and discussed at length on strengthening domestic supply chains, digital manufacturing, focusing on innovations, designing for sustainability, security of intellectual properties, innovation for excellence and zero defects etc.

Guest of Honour, Shri S Suresh Kumar, IAS explained scalable, affordable and sustainable innovations, reliability and security of different digital solutions, national preparedness for the next generation and so on. He mentioned innovation as the route to excellence.

Guest of Honour, Lt Gen Rajiv Kumar Sahni, AVSM, VSM in his address highlighted the significance of data security, intelligent logistics of the country, battlefield surveillance, scope and application of logistics data bank, application of AI for target determination etc.

Chief Guest, Dr Ajay Kumar in his address mentioned that India's rise in recent years has been characterized by bold technological initiatives, far-reaching reforms, and a spirit of innovation that touches every domain. The progress is the result of relentless service of the engineers, in research labs, public institutions, start-ups, universities, and industries, who bring to life



the ambitions of our nation. He spoke on climate resilience and said that engineers must design infrastructure that can withstand extreme conditions, develop clean energy systems, and innovate in waste management and water security.

On the occasion, the digital version of Technical Proceedings was released on the dais. The souvenir of the 40th Indian Engineering Congress was also released on the occasion.

The Best Centre Awards were presented on the occasion of 40th Indian Engineering Congress. The Tamilnadu State Centre of the Institution was adjudged the Best State Centre and Coimbatore Local Centre was adjudged

the Best Local Centre for their all-round performance during the year 2024-25. The Awards, comprising trophies and certificates, were given away to the representatives of the respective Centres on December 20, 2025 during the 40th Indian Engineering Congress at Durgapur.

Also the Institution Prizes for the best papers published in the IEI Springer Journals were presented on the occasion to recognize the contribution of the authors in advancing the science and the art of engineering.

Maj Gen (Dr) MJS Syali, VSM [Retd], Secretary & Director General, IEI proposed the Vote of Thanks at the end of Inaugural Session.

Technical Sessions

Over the two days, the well structured and extensive technical sessions were organized. There were five technical sessions with subsequent parallel sessions on fifteen engineering disciplines, namely: Aerospace Engineering,



Industrial and Production Engineering, Environmental Engineering, Agricultural Engineering, Biotechnology/Bio-Medical Engineering, Chemical Engineering, Civil Engineering, Electrical Engineering, Electronics and Communication Engineering, Computer Science and Engineering/IT, Instrumentation Engineering, Robotics and Automation, Textile Engineering, Metallurgical and Materials Engineering, and Mechanical Engineering. A total of 300 papers were received. After peer-review, 276 papers were accepted for presentation, either as oral or poster presentations. Based on the sub-themes of each discipline, the accepted papers were organized into 32 oral sessions and one poster session. Total five Technical Sessions were organised over two days, where a total 103 papers were presented and there were 12 poster presentations.

On December 20, 2025, during Technical Session I, eight parallel sessions from different engineering disciplines were conducted. During Technical Session II, another eight parallel sessions were held. A Poster Session was also conducted on the same day. On December 21, 2025, Technical Session III comprised seven parallel sessions. Technical Session IV consisted of six parallel sessions. The final session, Technical Session V, comprised three parallel sessions.

Felicitation of Distinguished Engineering Doyens, Memorial Lectures, IEI Women Engineers Meet and IEI Alumni Meet

During the Congress, The Institution of Engineers (India) felicitated distinguished engineering personalities in recognition of their lifelong, relentless contributions in the field of academic, research, industries, entrepreneurship etc. The eminent engineering professionals honoured on this occasion were: Dr Ajay Kumar, Chairman, UPSC; Mr. Sanjay C. Kirloskar, Chairman and Managing Director, Kirloskar Brothers Limited; Lt Gen Rajiv Kumar Sahni, AVSM, VSM, & Col Comdt, Director General Electronics and Mechanical Engineers [DG EME]; Mr Satish Jha, Chairman cum Managing Director, Eastern Coalfields Limited, Dishergarh, WB; Prof Sudhanshu Sekhar Chakraborty, Co-Founder and Former Chairman, Second

Contd. on page 5

Innovative Engineering Solutions for Viksit Bharat@2047

Contd. from page 4

Vivekananda Bridge Tollway Company Private Limited (SVBTC), Co-Founder & Chairman, Emeritus-CES, Founder & Chairman Bengal Faith Healthcare; Dr Sandeep Singhal, Managing Director, UJVN Limited; Mr Surajit Mishra, Director-in-Charge, SAIL-DSP & ISP; and Prof. Arvind Choubey, Director, NIT Durgapur. Their journeys and leadership experiences served as a strong source of inspiration, particularly for young engineers and students.

A major highlight of the Congress was the series of prestigious Memorial Lectures delivered by eminent experts in the memory of the distinguished engineering personalities.

The 68th Sir Mokshagundam Visvesvaraya Memorial Lecture was delivered by Mr M Kishore Kumar, Director, Aarvee Engineering Consultants Private Limited.

The 11th Dr K L Rao Memorial Lecture was delivered by Mr S Subbaraj, Executive Director, Alloy Steels Plant, Steel Authority of India Limited, Durgapur.

The 51st Bhaikaka Memorial Lecture was delivered by Mr Sanjiv Singh, Group President, Reliance Industries Limited & Former Chairman, Indian Oil Corporation Limited.

The 60th Nidhu Bhushan Memorial Lecture was delivered by by Col Rajnish Kapur (Retd), Former Senior Indian Army Officer, Chief Operating Officer, Grey Cement, JK Cements Limited & Founder of Accelarena;

The 38th Dr A N Khosla Memorial Lecture was delivered by Prof Tapas Chakraborty, Vice Chancellor Maulana Abul Kalam Azad University of Technology.

The 34th Dr Amitabha Bhattacharyya Memorial Lecture was delivered by Prof Indranil Manna, Vice Chancellor, Birla Institute of Technology, Mesra, Ranchi.

The 15th Prof C S Jha Memorial Lecture was delivered by by Mr Praveen Kumar (IRSE), Managing Director, Dedicated Freight Corridor Corporation of India Limited.

The 47th Sir R N Mookerjee Memorial Lecture was delivered by Mr Akhil Gupta, CEO & Executive Director, Shapoorji Pallonji Engineering & Construction Division.

These lectures provided valuable insights into infrastructure development, industrial leadership, and the future roadmap for engineering in India.

On 21st December 2025, the IEI Women Engineers Meet was held and chaired by Dr Mou Sen, Joint Director, MSME, Government of West Bengal and then the IEI Alumni Meet chaired by Er R R Tanwar, Council Member, IEI and President of IEI Alumni Association.

Annual General Meeting and Installation of New President

The 106th Annual General Meeting of IEI was held on December 21, 2025, which was attended by a large number of Corporate Members of the Institution. The Corporate Members actively participated and deliberated on framing the future roadmap of IEI thereby signifying the value of promoting



inclusivity, leadership, and professional networking in this Congress. The Annual Report of IEI for the year 2024-2025 and Audited Accounts of IEI for the year ending 31st March 2025 were presented during the Annual General Meeting. Thereafter, the ceremonial function of installation of New President of IEI took place, where Er Manish Mahendra Kothari took over the charge from Er VB Singh as the President of The Institution of Engineers [India] for the Session 2025-26 and delivered the Presidential Address.

Valedictory Function

During the Valedictory Session, Mr Surajit Mishra, Director-in-Charge, SAIL-DSP & ISP, graced the function as the Chief Guest. He appreciated Durgapur Local Centre for the successful organization of such prestigious event in Durgapur. He further highlighted the contribution of IEI as a professional body for successful reaffirming the critical role of engineers in nation-building and sustainable development aligned with the national vision of Viksit Bharat@2047. Er Manish Mahendra Kothari, President, IEI [Session 2025-26] was introduced by Er VB Singh, Immediate Past President, IEI. In his address, Er M M Kothari, mentioned that the Indian Engineering Congress is not merely an annual event of The Institution of Engineers (India), it is a continuing national dialogue on the role of engineering in shaping India's destiny; Since its inception in 1987, the IEC has evolved into a prestigious platform where policy, practice, research, and innovation converge; The 40th edition stands as a significant milestone in this long journey, reaffirming IEI's commitment to engineering excellence, national development, and global engagement; Let us carry forward the ideas, insights, and inspiration gained here into our workplaces, institutions, and communities; Let this Congress not be seen as an end, but as a renewed beginning—a renewed commitment to engineering excellence in service of the nation, he opined.

During the Valedictory Session, the Annual Technical Volumes of the various Engineering Divisions and Interdisciplinary Coordination Committee of The Institution of Engineers (India) were released. These volumes, prepared with



academic rigour and professional insight, capture contemporary research, case studies, and technological advancements across multiple engineering disciplines, and serve as a valuable repository of knowledge for engineers, researchers, and practitioners. Also, the Abhiyanta Bandhu, the publication of IEI in regional languages under the aegis of National Languages Promotional Committee was released on the occasion.

Conclusion

The 40th Indian Engineering Congress successfully achieved its objectives of knowledge sharing, professional interaction, and vision building. The Congress reaffirmed the pivotal role of engineers in national development and in shaping a sustainable and technologically advanced future for India. The vibrant technical sessions, Memorial Lectures, the enthusiastic participation of young engineers and students underscored the engineering profession's pivotal role in global challenges. The deliberations of this Congress have clearly underlined that innovation, ethics, professionalism, and collaboration must remain the cornerstones of our collective endeavor.

Presentation of IEI Industry Excellence Awards 2025



1. J K Tyre and Industries Limited, Chennai Tyre Plant; 2. Steel Authority of India Limited, Salem Steel Plant; 3. Hindustan Copper Limited Kolkata; 4. Electronics Corporation of India Limited, Hyderabad; 5. HLL Lifecare Limited Peroorkada Factory, Thiruvananthapuram; 6. HLL Lifecare Limited, Akkulam Factory, Thiruvananthapuram; 7. HLL Lifecare Limited, Kanagala Factory, Belgaum; 8. HCC VCCL Joint Venture, New Delhi; 9. Techno Electric and Engg Co Limited, Kolkata; 10. Aarvee Engineering Consultants Limited, Hyderabad; 11. Engineers India Limited, New Delhi; 12. Safran data Systems Private Limited, Bengaluru; 13. Electrical Research and Development Association, Vadodara; 14. Avant Garde Systems and Controls Private Limited, Chennai; 15. B&S Consultants Private Limited, Kolkata



16. Epicons Consultants Private Limited;
17. RUKY Projects Private Limited

Presentation of IEI Engineering Education Excellence Awards 2025



1. Indian Institute of Technology Kharagpur; 2. Army Institute of Technology Pune; 3. National Institute of Technology Meghalaya; 4. Veltech Rangarajan Dr Sagunthala R&D Institute of Science and Technology, Chennai; 5. Sona College of Technology Salem; 6. Institute of Engineering and Management, Kolkata; 7. Sri Ramakrishna Engineering College, Tamil Nadu; 8. KES Rajarambapu Institute of Technology, Rajaramnagar; 9. Siddaganga Institute of Technology, Karnataka; 10. Vishwakarma Institute of Technology Pune; 11. Knowledge Institute of Technology, Tamil Nadu; 12. Saranathan College of Engineering Tamil Nadu



13. Rajalakshmi Engineering College, Thandalam; 14. Padmashri Dr V B Kolte College of Engineering, Malkapur; 15. K Ramakrishnan College of Engineering, Samayapuram; 16. Swami Kesavanand Institute of Technology, Management & Gramothan, Rajasthan; 17. KLS Vishwanathrao Deshpande Institute of Technology, Karnataka; 18. New Government Polytechnic Patna; 19. Thiagarajar Polytechnic College, Salem; 20. METS Institute of Technology Polytechnic, Nashik; 21. Shri Vishnu Engineering College for Women, Andhra Pradesh; 22. BVRIT Hyderabad College of Engineering for Women; 23. K K Wagh Polytechnic Nashik.

Address by

Er Manish Mahendra Kothari, President, IEI

Contd. from page 3

Our growth depends on strengthening predictable revenue streams such as training programmes, certification services, consultancy, publications, examinations and partnerships with industry and government. Centres with adequate facilities can be encouraged to run regular professional courses and structured activities that utilise their infrastructure effectively throughout the year. Equally important is financial discipline—uniform accounting practices, timely reporting and technology-enabled financial systems will ensure transparency and accuracy. These measures are practical, achievable and essential for sustaining IEI's operations and future initiatives.

The Road Ahead—Marching Together as Keepers of a Noble Profession

No President, Council or Directorate can realise this vision alone. IEI advances only when all its arms move together. Our Centres extend our outreach; our Divisions sharpen our intellectual engagement; our Fora amplify our collective voice; our employees safeguard continuity; and our Corporate Members give us identity and purpose. When these elements

work in harmony, IEI becomes not just an Institution—but a movement guided by shared responsibility.

Let us uplift young engineers with opportunity, uphold professional integrity with conviction and strengthen our contributions to national development. Let us honour the legacy of our founders by building an IEI that is modern in its systems, steadfast in its values and unwavering in its service to society.

As I accept the responsibility you have entrusted to me, I pledge to lead with openness, dignity and determination. I will listen, I will engage and I will act—with the singular aim of strengthening IEI and elevating the pride and standing of the engineering fraternity of India.

Together, let us write a new chapter in the history of The Institution of Engineers (India)—a chapter defined by relevance, credibility and national pride.

Jai Hind.

Jai Bharat.

Memorial Lectures

The following Memorial Lectures, instituted by the Institution in memory of stalwarts in the engineering profession, are a salient feature of the Indian Engineering Congress organized annually by The Institution of Engineers (India). During the Fortieth Indian Engineering Congress, these lectures were delivered by leading experts from diverse fields. Following are some excerpts of the lectures.

The 68th Sir M Visvesvaraya Memorial Lecture

Mr M Kishore Kumar

Director, Aarvee Engineering Consultants, Hyderabad

The speaker, in his lecture, provided a comprehensive overview of the current road infrastructure scenario in India and highlighted its crucial role in the country's overall infrastructure development. He discussed various road safety measures and elaborated on key aspects of effective road design aimed at improving efficiency, durability, and user safety. The lecture also addressed major challenges such as the movement of overloaded vehicles and the difficulties associated with road tax collection, both of which have significant implications for road performance and maintenance.

Furthermore, he explained the importance of systematic road maintenance practices and the role of road data management in informed decision-making. Special emphasis was placed on the project data management methodology adopted by the National Highways Authority of India (NHAI), particularly the use of a centralized Data Lake for efficient data storage, analysis, and monitoring of highway projects.

In his address, Mr. Kumar emphasized the growing need for upskilling and reskilling of manpower to meet evolving technological and operational demands in the road sector. He also highlighted the importance of adopting low-cost and innovative design solutions to ensure sustainable and cost-effective infrastructure development.



The 47th Sir Rajendra Nath Mookerjee Memorial Lecture

Mr Akhil Gupta

CEO & Executive Director, Shapoorji Pallonji Engineering and Construction

In his lecture, Mr. Gupta focused on the critical role of engineers in infrastructure development, emphasizing their responsibility in ensuring the safety, durability, and sustainability of large-scale civil engineering projects. He highlighted that sound engineering judgment and adherence to design principles are essential to prevent failures and extend the service life of infrastructure assets. He discussed structural failures in detail, explaining the mechanisms of fatigue and the various causes that can lead to deterioration or collapse of structures, such as design deficiencies, material degradation, overloading, environmental effects, and inadequate maintenance. Mr. Gupta stressed the importance of timely assessment, monitoring, and diagnosis of structural health to mitigate risks and ensure public safety.

The speaker elaborated on retrofitting and strengthening techniques used to restore and enhance the load-carrying capacity of existing structures. He provided insights into advanced methods such as external prestressing with box segments, highlighting its advantages in improving structural performance without extensive reconstruction. Mr. Gupta further explained the different stages involved in the dismantling of bridges, outlining the systematic approach required to ensure safety and structural stability during demolition. He discussed design considerations, dimensional aspects, and practical applications of hollow Y-shaped piers with upstream and downstream pier caps, emphasizing their structural efficiency and suitability for modern bridge construction. He also covered construction methodologies, including the erection of dry spans and wet spans, and explained the importance of properly designed ground support systems to ensure stability during construction. Additionally, he described the use of anchor span trusses and their role in facilitating safe and efficient bridge erection processes.

In conclusion, Mr. Gupta emphasized that a thorough understanding of structural behaviour, failure mechanisms, and modern construction and retrofitting techniques is essential for engineers to deliver resilient, safe, and long-lasting infrastructure that meets the growing demands of society.



The 34th Dr Amitabha Bhattacharyya Memorial Lecture

Prof Indranil Manna

Vice Chancellor, Birla Institute of Technology, Mesra Ranchi

Science, Engineering and Technology – Synergy for Viksit Bharat@2047

Prof. Manna began his lecture by emphasizing the concept of knowledge-driven progress and prosperity, highlighting how education, research, and innovation form the foundation of sustainable national development. He explained the Human Development Index (HDI) and its interpretation as a comprehensive indicator of societal well-being, encompassing health, education, and standard of living rather than economic growth alone. He went on to highlight the remarkable achievements of engineering and technology in India, reflecting the country's long-standing tradition of scientific inquiry and innovation. Prof. Manna introduced the concept of the "peripheral triad," comprising Science, Engineering, and Technology, and explained how the effective integration of these three domains creates a clear pathway toward national prosperity and global competitiveness.

Prof. Manna elaborated on India's rich engineering and technological legacy while also drawing attention to the contemporary challenges associated with development. These include rising energy consumption per capita, increasing CO₂ emissions per capita, and growing stress on water resources as reflected in higher water withdrawal rates. He emphasized the need for balanced growth that aligns technological advancement with environmental sustainability.

The lecture further addressed the critical role of education and human capital in national progress. Prof. Manna discussed the current status of investment in



40th Indian Engineering Congress, Durgapur

research and development, trends in research publications, and innovation output, presenting a comparative analysis using benchmarking data from other leading nations. This comparison, he noted, highlighted both India's strengths and the areas requiring focused policy and institutional intervention.

He also provided an overview of the Impacting Research, Innovation, and Technology (IMPRINT) India initiative launched in 2015, explaining its objectives, structure, and outcomes. He described its ten technological domains and emphasized how the program aims to align academic research with national needs and societal challenges.

In addition, Prof. Manna highlighted the excellence in research demonstrated by CSIR laboratories across the country, citing their contributions to science, technology, and industrial applications. He concluded by discussing the growing role of artificial intelligence and its far-reaching impact on human society, emphasizing both its transformative potential and the responsibility to deploy it ethically and inclusively for the benefit of all.

The 51st Bhaikaka Memorial Lecture

Mr Sanjiv Singh

Group President, Reliance Industries Limited and Former Chairman, Indian Oil Corporation Limited

The speaker shared his perspectives on the rapid advancement of the manufacturing sector, highlighting the critical role of technological progress, effective leadership, energy security, and infrastructure development in shaping a resilient industrial ecosystem. He emphasized that sustained growth in manufacturing is closely linked to innovations in technology and strong strategic leadership, supported by reliable energy systems and robust infrastructure. He spoke in detail about advancements in materials science, modern energy systems, and core manufacturing processes, noting how these developments are transforming traditional production methods and enabling higher efficiency, precision, and scalability. The speaker described manufacturing as the backbone of national development, underscoring its substantial contribution to the country's GDP and its role in driving economic growth, employment, and self-reliance.



Furthermore, he discussed the increasing complexity of modern manufacturing systems, which now integrate advanced automation, data-driven decision-making, and sophisticated operational controls. He highlighted the transition toward manufacturing excellence through engineering innovations that optimize processes, improve reliability, and enhance overall productivity.

The speaker also elaborated on the application of artificial intelligence-based quality assurance systems, explaining how AI enables real-time monitoring, defect prediction, and consistent product quality while supporting sustainable manufacturing solutions. He stressed the importance of focusing on core areas such as design and manufacturing, building strong engineering fundamentals, and embedding sustainability-driven thinking across all stages of production.

In conclusion, he emphasized the need to enhance process efficiency, improve digital fluency among the workforce, and adopt integrated digital solutions alongside physical infrastructure growth. He strongly recommended that the convergence of digital transformation with tangible industrial expansion is not merely an option but the only viable pathway toward achieving long-term manufacturing excellence and global competitiveness.

The 60th Nidhu Bhushan Memorial Lecture

Col Rajnish Kapur [Retd]

Former Senior Indian Army Officer, Chief Operating Officer, Grey Cement, JK Cements Limited, Gurgaon and Founder of Accelarena

India's Growth Story: An Engineering Narrative

In his lecture, Col. Kapur discussed the multifaceted challenges associated with leadership in today's dynamic and complex organizational environments. He emphasized that effective leadership requires the ability to balance strategic vision with practical execution while responding to uncertainty, change, and human factors.

He highlighted the distinct advantages of an engineer as a leader, noting that an engineering mindset fosters a systems-thinking approach, enabling leaders to understand interdependencies, constraints, and the need for holistic and sustainable solutions. Such leaders, he explained, are more comfortable dealing with complexity and ambiguity, and are adept at navigating both the technical and human dimensions, the natural language of leadership.

Col. Kapur further elaborated on the thought processes of successful leaders and shared insights from his personal experiences interacting with renowned industry leaders. These interactions, he noted, reinforced the importance of sound judgment, clarity of purpose, and the ability to translate ideas into action.

He further underscored the significance of cultural revitalization within organizations, stressing core values such as discipline, integrity, and professionalism as essential foundations for long-term success. According to him, a strong organizational culture not only enhances performance but also builds trust, accountability, and resilience. Col. Kapur opined that visionary leadership—characterized by audacious goals and a clear sense of direction—combined with an empathetic executive presence creates a balance between clarity and compassion. This balance, he explained, enables leaders to support employees both professionally and personally, fostering engagement, loyalty, and growth.

In conclusion, he emphasized that exemplary leaders consistently discover potential beyond conventional boundaries, base their judgments on ground realities, and focus on building execution excellence. By providing courage and stability during times of crisis and leading by personal example, such leaders inspire confidence and set enduring standards for leadership excellence.



The 38th Dr Ajudhia Nath Khosla Memorial Lecture

Prof Tapas Chakraborty

Vice Chancellor, Maulana Abul Kalam Azad University of Technology, West Bengal

A LASER Associated Long path Liquid Core Optical Guide [LLOG] Apparatus for Environmental Monitoring of Trace Species

In his lecture, Prof. Chakraborty highlighted the growing environmental challenges and the key parameters that influence pollution levels in the atmosphere. He emphasized the importance of understanding environmental systems in order to assess, control, and mitigate pollution and its impact on human health and

40th Indian Engineering Congress, Durgapur

ecological balance. He explained the role of various atmospheric constituents, including both beneficial and harmful pollutants, and discussed how certain atmospheric components are essential for sustaining life while others, when present in excess, contribute to environmental degradation. In this context, he elaborated on the mechanism of tropospheric ozone formation, describing the complex photochemical reactions involving nitrogen oxides, volatile organic compounds, and sunlight that lead to ozone generation at ground level. Prof. Chakraborty further discussed atmospheric self-cleansing processes, explaining the co-removal mechanisms through which particulate matter and gaseous pollutants are removed from the atmosphere. He highlighted the critical role of hydroxyl (OH) radicals and hydroperoxyl (HO₂) radicals in initiating chemical reactions that break down pollutants, thereby reducing their concentration and impact.



Additionally, he explained the application of optical fibre technology in environmental preservation. He described the basic working principles of optical fibre-based sensing systems and their ability to detect and measure various atmospheric constituents with high sensitivity and accuracy. These measurement techniques, he noted, enable continuous monitoring of air quality parameters and provide valuable data for assessing pollution levels, understanding environmental trends, and supporting effective pollution control strategies.

The 15th Prof C S Jha Memorial Lecture

Mr Praveen Kumar, IRSE

Managing Director, Dedicated Freight Corridor Corporation of India Limited

Dedicated Freight Corridor – Transforming Transformation

Mr Kumar, in his address, discussed in detail the scope, objectives, and functioning of India's Dedicated Freight Corridor (DFC) project and highlighted its transformative impact on the logistics and transportation sector. He emphasized that the DFC is a landmark infrastructure initiative aimed at enabling seamless, multimodal logistics and introducing innovative cargo transportation solutions, thereby significantly improving the overall logistics ecosystem of the country.



The speaker outlined the existing logistics landscape of rail transportation in India and explained how the DFC addresses longstanding capacity constraints and operational inefficiencies. He provided an overview of the various DFC projects, describing key infrastructure components such as dedicated tracks, rail bridges, road underpasses, and advanced operational control systems designed to support high-capacity and high-speed freight movement.

Mr. Kumar further elaborated on the technological and research-driven aspects of the DFC, including its strong focus on research and development to enhance reliability, efficiency, and safety. He highlighted the benefits of the project, such as substantial improvements in freight capacity, enhanced operational safety, reduced transit time, and a significant reduction in logistics costs. He also emphasized safe train operations, increased transportation efficiency, and the development of industrial hubs along the corridor, which are expected to stimulate regional economic growth. The speaker further discussed the current operational status of the DFC project and provided insights into several advanced monitoring and inspection systems being deployed. These included the Machine Vision Inspection System for automated fault detection, Drone-based Inspection Systems for real-time infrastructure monitoring, Rail Grinding techniques to improve track life and safety, Track Recording Cars for precise measurement of track geometry, and Broken Rail Detection Systems to prevent accidents and ensure reliability. Additionally, he explained the role and functionality of the Dedicated Freight Information System in enabling real-time data integration, decision-making, and operational transparency. He also highlighted the contributions of the Centre for Heavy Haul Rail Research and Development (CHRRD), which focuses on developing advanced technologies, standards, and best practices for heavy-haul rail operations in India.

In conclusion, Mr. Kumar emphasized that the Dedicated Freight Corridor represents a paradigm shift in India's freight transportation system by combining large-scale infrastructure development with technological innovation, research, and digital integration, thereby laying the foundation for a safer, more efficient, and globally competitive logistics network.

The 11th Dr K L Rao Memorial Lecture

Mr S Subbaraj

Executive Director, Alloy Steel Plant, Steel Authority of India Limited, Durgapur

Transforming Indian Steel Making for Viksit Bharat@2027: Technological and Sustainability Challenges

The speaker, in his address, highlighted that India is the second-largest producer of crude steel globally, making the sector a significant contributor to the national GDP. The steel industry also plays a vital role in employment generation, creating both tangible employment opportunities across manufacturing and logistics, as well as intangible employment through ancillary industries, services, and technology-driven roles. He emphasized that steel acts as a key enabler for several critical growth sectors such as infrastructure, construction, automobiles, power, and manufacturing. The industry is highly capital-intensive and is witnessing a steady rise in per capita steel consumption, reflecting the country's growing economic activity and urbanization.



The speaker elaborated on the major technological challenges faced by the steel industry, including the need to enhance productivity and process efficiency, address productivity gaps, conduct comprehensive value chain analysis, ensure quality consistency, and optimize the use of critical raw materials required for steel production. He further discussed issues related to cost effectiveness and logistics, pointing out challenges such as global price volatility of key inputs like coal, scrap, and alloys, along with risks associated with freight costs, port congestion, and supply chain disruptions. The address also covered the growing role of digitization in steelmaking, particularly its importance in improving operational efficiency, ensuring sustainability, and advancing the transition toward green steel. The speaker highlighted the impact of carbon and energy footprints in steel production and stressed the need for digital solutions to monitor, optimize, and reduce emissions.

Finally, he explained India's carbon footprint and energy intensity in steel manufacturing, with specific reference to the Coal-based DRI-EAF/IF route, underlining the challenges and opportunities associated with reducing emissions while maintaining competitiveness and growth in the sector.

Felicitation of Eminent Engineering Personalities



Dr Ajay Kumar

Chairman

Union Public Service Commission, New Delhi



Prof Arvind Choubey

Director

National Institute of Technology Durgapur



Dr Sandeep Singhal

Managing Director

UJVN Limited



Mr Satish Jha

Chairman-cum-Managing Director
Eastern Coalfields Ltd. (ECL)



Prof Sudhansu Sekhar Chakraborty

Co-Founder and Former Chairman

Second Vivekananda Bridge Tollway Company
Private Limited (SVRTC)



Mr Surajit Mishra

Director-in-Charge, ISP & DSP, SAIL
Ispat Bhawan, Durgapur Steel Plant
Durgapur



Lt Gen Rajiv Kumar Sahni, AVSM, VSM

Director General Electronics and Mechanical Engineers
(DG EME)



Mr Sanjay C Kirloskar

Chairman and Managing Director
Kirloskar Brothers Limited
Pune

The Steel Authority of India Ltd (SAIL) had instituted two Awards, namely, SAIL AWARD and DR M VISVESVARAYA AWARD to be given away every year during the Indian Engineering Congress to author/s of the articles adjudged best on selected topics.

SAIL Award

For the year 2025, **Ujjal Kumar Mondal** for his paper titled 'Hydrogen-Based Steelmaking for Decarbonization'.



Ujjal Kumar Mondal

Dr M Visvesvaraya Award

For the year 2025, **Muralikumar Krishnan** for his paper titled 'Digitization and Digital Twin Integration for Process Simulation - A Case Study in Automotive Manufacturing using Siemens PLM and MES Solutions'



Muralikumar Krishnan

IEI's Best Centre Award



Tamil Nadu State Centre



Coimbatore Local Centre

Safety and Quality Awards

Safety Award and Quality Award were instituted by the Safety and Quality Forum (SQF) of the Institution with a view to encourage professionals from manufacturing and service sectors to strive for excellence. For the year 2025, **Shri K Manoharan**, Senior General Manager I/c, MECON Limited received the Safety Award and **Prof (Dr) Satyendra Mittal**, Pro Vice Chancellor, University of Patanjali received the Quality Award.



Shri K Manoharan for Safety Award



Prof (Dr) Satyendra Mittal for Quality Award

The H Nandy Memorial Award

The Institution of Engineers (India) instituted the Award in the name of Late H Nandy, renowned Council Member, a doyen and eminent engineer in the field of Metallurgical and Materials Engineering and to be given away to a student who tops the list of Section B Examination of the Institution in the branch of Metallurgical & Materials Engineering. Considering both Summer and Winter examinations for the year 2023, **Santosh Kumar Gupta** was selected for the award.



Santosh Kumar Gupta

Abhiyanta Bandhu is the IEI Publication in National Languages

Best Paper Award

For Abhiyanta Bandhu 2024 (Telugu Language), **Dr Raghupatruni Bhima Rao** for his paper titled

An Innovative Technology for Deinking of Indian News Paper by Agglomerate Flotation

Best Paper Award

For Abhiyanta Bandhu 2024 (Hindi Language), **Er Manoj Kumar Yadav, Er M R Kumar & Er Suresh Kumar** for their paper titled

Decarbonisation of Steel Industry: Importance of Hydrogen Injection in Blast Furnace

Recipients of IEI Prizes & Awards

One of the important events of the Congress was the presentation of prizes and awards to the authors whose papers were published in the Journals of The Institution of Engineers (India), co-published by Springer Nature during the year 2024 and were adjudged the best in respective fields. Details of prizes and awards, the titles of the winning papers along with the authors' names are listed hereunder.

Sir Arthur Cotton Memorial Prize

Varun Kumar Reja, Megha Sindhu Pradeep and Koshy Varghese for their Paper titled '*Digital Twins for Construction Project Management (DT-CPM): Applications and Future Research Directions*', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 3, pages 793–807.**



Institution of Engineers (India): Series-A, Volume 105, Issue 3, pages 783–791.

Marine Engineering Division Prize

Prafal Choudhari, Vivek Kulkarni and Sanjeevakumar Khandal for their Paper titled '*Review on efforts to improve the mechanical performance of Fiber Reinforced Polymer (FRP) composites under the marine environment*', **Journal of The Institution of Engineers (India): Series-C, Volume 105, Issue 1, pages 241–269.**



Sir Rajendra Nath Mookerjee Memorial Prize

Shrikant Vishnu Baste and Sudhakar S Umale for their Paper titled '*Combustion Analysis on Compression Engine by using Blends of Methyl Ester, Diesel and Turmeric Oil as an Additive*', **Journal of The Institution of Engineers (India): Series-C, Volume 105, Issue 5, pages 1013–1024.**



Metallurgical and Materials Engineering Division Prize

Indrajit Ghanta, Chanchal Biswas and Projjal Basu for their Paper titled '*Application of BOF Steelmaking Slag as a Partial Replacement of Agricultural Fertilizer*', **Journal of The Institution of Engineers (India): Series-D, Volume 105, Issue 3, pages 1527.**



Hem Prabha–SN Gupta Prize

Malti Mardi and **Sunil Kumar Murmu** for their Paper titled '*An Experimental Study of Manning's Roughness Coefficient with an Acoustic Doppler Current Profiler (ADCP) Method of the River Ganga at Gandhi-Ghat Site, Patna, India*', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 4, pages 987–1001.**



Production Engineering Division Prize

Samridhya Ray Chowdhury, Shankar Chakraborty and Srinjoy Chatterjee for their Paper titled '*Optimizing Green Machining Processes using MCDM Methods in q-rung Orthopair Fuzzy Environment*', **Journal of The Institution of Engineers (India): Series-C, Volume 105, Issue 6, pages 1545–1569.**



Dr Triguna Charan Sen Prize

Angika Kushwaha, Satendra Singh and Kavita Chaudhary for their Paper titled '*Cleaner dyeing of pineapple fabric using Musa acuminata natural dye and Acacia nilotica bio mordant with enhanced functionality*', **Journal of The Institution of Engineers (India): Series-E, Volume 105, Issue 1, pages 77–88.**



Institution Prize (One)

Sandi Kumar Reddy, Anil S Naik and Govinda Raj Mandela for their Paper titled '*Development of a reliable Wireless Communication System to Monitor Environmental Parameters from various positions of Underground Mines to the Surface using ZigBee Modules*', **Journal of The Institution of Engineers (India): Series-D, Volume 105, Issue 1, pages 359–383.**

Brij Mohan Lal Memorial Prize

Ankit Kumar Maurya, **Tekcham Gishan Singh**, Suman Kumar Mushahary and Konjengbam Darunkumar Singh for their Paper titled '*Mechanical Performance of Corroded TMT Steel Rebars Under Post-Fire Conditions*', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 2, pages 399–408.**



Institution Prize (Two)

Salian Shyam Sunder Sagar and Saurabh Dewangan for their Paper titled '*Critical Analysis into Mechanical Properties and Microstructure of Dissimilar Welded Joint between Stainless steel-304 and Inconel-718*', **Journal of The Institution of Engineers (India): Series-D, Volume 105, Issue 2, pages 853–861.**

Aerospace Engineering Division Prize

Ashish Kumar Gupta, D Ravi, Parag Deshpande, P A Aswatha Narayana and G Ramesh for their Paper titled '*Characteristics at Low Reynolds Number and Comparison with CFD for Eppler 387*', **Journal of The Institution of Engineers (India): Series-C, Volume 105, Issue 4, pages 813–823.**



K F Antia Memorial Prize

Gaurav Modi and Bhim Singh for their Paper titled '*Power Quality Improvement in Solar Energy Conversion System Integrated to Weak AC Grid*', **Journal of The Institution of Engineers (India): Series-B, Volume 105, Issue 6, pages 1511–1526.**

Architectural Engineering Division Prize

Varsha Vinod, Satyaki Sarkar and Supriyo Roy for their Paper titled '*An Overview of Key Indicators and Evaluation Tools for Assessing Economic Value of Heritage Towns: A Literature Review*', **Journal of The Institution of Engineers (India): Series-B, Volume 105, Issue 6, pages 1637–1655.**



Corps of Engineers Prize

C. Kishor Muley and Sandeep Bhongade for their Paper titled '*Intelligent Demand Side Management for Residential Consumer Comprise of Electric Vehicle, Energy Storage System and Renewable Energy Source*', **Journal of The Institution of Engineers (India): Series-B, Volume 105, Issue 6, pages 1637–1655.**

Corps of Electrical and Mechanical Engineers' Prize

Deo Chandra Jaiswal, Rachna Asthana and S K Sriwas for their Paper titled 'Power Efficiency Improvement in Elastic Optical Networks using Ring Structure with Optimized Power Routing', **Journal of The Institution of Engineers (India): Series-B, Volume 105, Issue 5, pages 1331–1337.**

The Institution Prize (Donated by Col G N Bajpai)

Chandrasekaran Srinivasan, Giorgio Serino, Yogesh J. Chauhan, Chaitanya Sanghvi and Aishwary Gohil for their Paper titled 'Feasibility Study of Offshore Triceratops Supported Floating Offshore Wind Turbine', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 2, pages 295–305.**

E P Nicolaides Prize

Lakshmikanth Srinivasamurthy, Kumar Srinivasan and M C Nataraja for their Paper titled 'Investigation on Flexural Behavior of Conventionally Reinforced, Steel Fiber-Reinforced, and Post-tensioned Geopolymer Concrete Beams', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 1, pages 129–150.**

Dr Jai Krishna Prize

Neethu Elizabeth John and Kiran Kamath for their Paper titled 'A Comparative Study Between Conventional Outrigger System and Hybrid Outrigger System considering Performance Index Criterion', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 3, pages 641–659.**

Pandit Madan Mohan Malaviya Memorial Prize

Jitendra Gupta and Bhim Singh for their Paper titled 'A Modified Zeta-based High Power Quality Rectifier for Low Voltage Battery Charging Applications', **Journal of The Institution of Engineers (India): Series-B, Volume 105, Issue 1, pages 27–40.**

Sir Thomas Ward Memorial Prize

Jhansi Rani Kaka and K Satya Prasad for their Paper titled 'Hippocampus Segmentation using Fuzzy C Means based Level Set Local Ternary Pattern with Enhanced Edge Indicator', **Journal of The Institution of Engineers (India): Series-B, Volume 105, Issue 3, pages 565-574.**

Shrimati Saroma Sanyal Memorial Prize

Bhabesh Mahanta, Arup Kumar Sarma and Sashindra Kumar Kakoty for their Paper titled 'Bridging the Gap: Assessing Performance and Planned Importance in Watershed Projects Using Participatory Methods', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 4, pages 835–850.**

Nawab Zain Yar Jung Bahadur Memorial Prize

John D'Costa, Djibril Sekou Keita, Harshad Patel and Vincent J Braganza for their Paper titled 'Environmental Impact Assessment of the Solid Waste Landfill in Ahmedabad', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 3, pages 589–601.**

Dr Rajendra Prasad Memorial Prize

Nilesh Pratap Singh, Vikram Seervi, Nawal Kishore and Amit Kumar Verma for their Paper titled 'Impact of surface miner utilisation on production efficiency in opencast coal mines using least squares method: A case study', **Journal of The Institution of Engineers (India): Series-D, Volume 105, Issue 1, pages 567–580.**

Sir Ganga Ram Memorial Prize

Tontrakarn Pongpai, Sasina Kersiri and Tanwawan Duangthongyou for their Paper titled 'Ethylene Adsorption Study by Using Various MOFs in the CMC film for Application in Postharvest of Fruit', **Journal of The Institution of Engineers (India): Series-E, Volume 105, Issue 1, pages 51–65.**

N K Iyengar Memorial Prize

Ishant Jain and Ganesh Bhoje for their Paper titled 'Novel Gas Meter Designs with Improved Accuracy, Reliability, and Cost-Effectiveness', **Journal of The Institution of Engineers (India): Series-C, Volume 105, Issue 3, pages 647–662.**

Computer Engineering Division Prize

Sriekha Nallamothe, K Rajyalakshmi and P Arumugam for their Paper titled 'Gold Price Prediction using Skewness and Kurtosis Based Generalized Auto-Regressive Conditional Heteroskedasticity approach with Long Short Term Memory Network', **Journal of The Institution of Engineers (India): Series-B, Volume 105, Issue 6, pages 1715–1727.**

Suchit Kumar Ghosh Memorial Prize

A Srinivas and K Lakshmi for their Paper titled 'Modal Identification of a Bridge Using the Vibration Response of a Passing Vehicle Combining VMD and TKEO', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 3, pages 603–618.**

Prof R C Singh Prize

Sahlathasneem Kallankandy and Surinder Deswal for their Paper titled 'Assessment of Noise Pollution Levels in a Fully Residential Academic Institute in India', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 4, pages 939–953.**

Rekha Nandi and Bhupesh Nandi Prize

Raman Sharma, Priyanka Saxena, Mamta Prakash and S K Goyal for their Paper titled 'Assessment of Heavy Metals in the Sediments of Delhi Stretch of River Yamuna, India: Impact of Wastewater Discharge', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 4, pages 1041–1057.**

Tata Rao Prize

Xiangguo Liu, Zhonglong Wang, Huijun Du, Jia Zhou, Yue Liu and Jia Peng for their Paper titled 'Detecting False Data Injection Attacks (FDIAs) in Power Systems based on Entropy Criteria', **Journal of The Institution of Engineers (India): Series-B, Volume 105, Issue 1, pages 121–129.**

Agriculture Engineering Division Prize

Jinliang Gong, Yanfei Zhang and Changkun Zhang for their Paper titled 'Optimization Design and Experimental Analysis of Spraying Device for High Ground Clearance Plant Protection Machine', **Journal of The Institution of Engineers (India): Series-A, Volume 105, Issue 4, pages 1029–1039.**

The Coal India Ltd (CIL) had instituted an Award to perpetuate the memory of Late J G Kumaramangalam, its first Chairman, to be awarded every year during the Indian Engineering Congress to author/s of the articles adjudged best on a selected topic.

Coal India (J G Kumaramangalam Memorial) Award

For the year 2025, **Muralikumar Krishnan**, for his paper entitled 'Digital Twin Driven Energy Efficiency in Coal Mining: A Case Study of NCL's Jayant Mine'.



Muralikumar Krishnan

Green Energy Technologies and AI-Enabled Sustainable Chemical Processes

The **Punjab and Chandigarh State Centre** of The Institution of Engineers (India), in association with Jagat Guru Nanak Dev Punjab State Open University, Patiala, Punjab and Sunny Oberoi Vivek Sadan (A Futuristic University), Sri Anandpur Sahib, Punjab organized the Fortieth National Convention of Chemical Engineers during 06-07 December 2025 at Chandigarh under the aegis of Chemical Engineering Division Board [CHDB], IEI. A National Seminar was organized concurrently on the theme **Green Energy Technologies and AI-Enabled Sustainable Chemical Processes**. The National Convention aimed to provide a common platform for academicians, researchers, industry professionals and students to deliberate on emerging trends, challenges and innovations in green energy, sustainable chemical processes and artificial intelligence applications in chemical engineering.

Prof (Dr) V K Rattan, Former Vice-Chancellor, GNA University, graced the occasion as the Chief Guest, while Dr Avinash Chandra, Professor and Head, Department of Chemical Engineering, Thapar Institute of Engineering & Technology (Deemed-to-be-University), Patiala, was the Guest of Honour.

In his address, Prof Rattan highlighted the convergence of green energy and AI-driven chemical engineering as a beacon of hope for sustainable development and encouraged young engineers to actively engage with IEI for professional growth. Dr Avinash Chandra emphasized that green energy has become a necessity rather than a choice and that such conventions provide valuable opportunities for interaction, learning and collaboration.

The inaugural session was presided over by Prof (Dr) Raghupatruni Bhima Rao, Chairman, Chemical Engineering Division Board, IEI.

Prof (Dr) Baljit Singh Khehra, Chairman, Punjab & Chandigarh State Centre, IEI, delivered the welcome address and extended a warm greeting to all dignitaries, delegates and participants. He outlined the significance of the convention and motivated participants to actively contribute to the technical deliberations. Dr Jodh Singh, Assistant Professor, Dr SSB University Institute of Chemical Engineering & Technology, Panjab University, Chandigarh and Convener of the Convention, briefed the audience on the theme of the event and emphasized the relevance of green energy technologies and AI-enabled sustainable chemical processes in the present global scenario.

Prof (Dr) Raghupatruni Bhima Rao, Chairman, Chemical Engineering Division Board, IEI, highlighted the pivotal role of chemical engineers in sustainable industrial growth, stressing the integration of advanced research, digital technologies and environmentally responsible practices. Prof (Dr) Shilpa Tripathi, Chairman, CATE [Session 2024-25] and Member, Chemical Engineering Division Board, IEI elaborated on the importance of quality technical education, accreditation and industry-academia collaboration in addressing contemporary challenges. A Souvenir was released on the occasion in the august presence of dignitaries on the dais.

On the occasion, Dr Kailas L Wasewar, Professor and Head, Ex-Associate Dean & Ex-Member of Board of Governors VNIT & Former Faculty at IIT Roorkee & BITS Pilani; Er Om Sahai, Former Executive Director, Punjab Agro Industries Corporation Limited, Chandigarh and Dr Chinthapudi Eswaraiiah, Chief Scientist, CSIR-Institute of Minerals and Materials Technology, Bhubaneswar were felicitated as Eminent Engineering Personalities in recognition of their eminence and contribution to the profession of Chemical Engineering.

The IEI Young Engineers Awards in Chemical Engineering Division for the

year 2025 were presented to Dr Sourav Sengupta, Assistant Professor, Department of Chemical Engineering, IIT ISM Dhanbad; and Dr Vineet Aniya, Senior Scientist, Process and Polymer Engineering Lab, Chemical Engineering and Process Technology Department, CSIR-Indian Institute of Chemical Technology, Hyderabad, Telangana in recognition of their contributions in the field of Chemical Engineering.

The Acharya Prafulla Chandra Ray Memorial Lecture was delivered by Prof Vimal Chandra Srivastava, Dean (International Relations), IIT Roorkee, on the topic 'AI/ML-Empowered Strategies for Decarbonisation and Environmental Resilience'. The State-of-the-art Lecture was delivered by Prof (Dr) Sushil Kumar Kansal, Department of Chemical Engineering, UICET, Panjab University, Chandigarh, on "Green Hydrogen and Clean Water from Sunlight: Dual Action Photocatalysis Approaches".

The Convention featured multiple technical sessions spread over two days, comprising invited talks and technical paper presentations. Key topics included 'Advances in Catalyst Microstructures for Sustainable Hydrogen



Production: A Steam Reforming Perspective', an Invited Talk by Prof (Dr) Manpreet Kaur, Associate Professor, BBSBEC, Fatehgarh Sahib, Punjab, India; 'Loss of Containment Events in Process Industries: Exposition, Approach and Analysis' by Dr Ganesh Gopalakrishnan, Risk & Reliability Specialist, Operations Specialist, Data Specialist, Formerly of The Fertilisers and Chemicals Travancore Limited, The Bahrain Petroleum Company;

'Emerging Materials for Efficient Photocatalytic H₂O₂ Generation' by Er Dhruvika Jain, Dr S S B University Institute of Chemical Engineering & Technology, Panjab University, Chandigarh; 'Green Technologies to Recover Beach Sand Monazite' by Prof Raghupatruni Bhima Rao, Formerly Chief Scientist, CSIR IMMT, Bhubaneswar; 'Rare Earth Zirconates – Versatile Industrial Materials for High-Temperature Corrosion Resistance' by Dr Bighnarj Mishra, Ex GM & Head, IREL(India), Limited, Chatrapur Odisha; 'Magnesium Alloy Anodes: An Alternative Low-Cost Solution for Battery Technologies' by Dr Dhananjay Mishra, TVSL Satyavani Naval Science and Technological Laboratory (NSTL), DRDO, Ministry of Defence, Government of India, Visakhapatnam; 'Sustainable synthesis of Hard Carbon from Rice Husk: Structure, Yield and Sodium-ion Storage Properties' by Dr P Naga Sai Babu Sc-C, TVSL Satyavani Naval Science & Technological Laboratory, Visakhapatnam; 'A Systematic Review of AI-Driven Tuberculosis Detection via Chest X-Rays' by Ms Kanika Sharma, Research Scholar, DCSA, Panjab University, Chandigarh; 'An Analytical Review of Modern Solid Waste Management with Focus on Municipal and Industrial Systems' by Mr Rahul Singh, University School of Business, Chandigarh University, Sahibzada Ajit Singh Nagar, Gharuan, Punjab; 'Use of Nanofluids in Chemical Process Heating' by Dr Jodh Singh, Assistant Professor, Dr SSB UICET, Panjab University, Chandigarh; 'Nanotechnology in Sustainable Engineering: Tiny Tech Big Impact' by Prof (Dr) Ajay Bansal, Professor, Chemical Engineering Department, Registrar, NIT, Jalandhar, Punjab; 'Safety in Chemical and Process Industries: Challenges and Strategies' by Sh Devendra Gill, Council Member, IEI & Executive Director- Safety, Delhi Metro Rail Corporation; 'Unveiling the factors of parasitic corrosion of aluminium anode and enhancement of utilization efficiency: Micro structural basis for development of next-generation green energy technologies' by Dr Arkoprabho Roy, TVSL Satyavani, Naval Science & Technological Laboratory, Visakhapatnam; and so on. For further details of technical session, kindly follow the link

<https://shorturl.at/wAXiz>

Contd. on page 17

Innovative Role of Artificial Intelligence in Solar Power Generation & Optimization

Kota Local Centre, IEI, organized an All India Seminar on **Innovative Role of Artificial Intelligence in Solar Power Generation & Optimization** on 03 & 04 September, 2025, under the aegis of Mechanical Engineering Division Board (MCDB), IEI at Kota. The Seminar was held with the objective of providing a national-level platform for academicians, researchers, industry professionals and students to deliberate on the emerging applications of artificial intelligence in solar energy systems, optimization techniques, predictive maintenance, energy storage and sustainable power generation. The two-day seminar witnessed active participation and technical deliberations focused on integrating AI with renewable energy to address present and future energy challenges.

In the inaugural session Er Ashok Kumar Patni, Chairman, Kota Local Centre, IEI extended a warm welcome to all and highlighted the importance of renewable energy in India's energy transition and emphasized the growing role of artificial intelligence in enhancing the efficiency, reliability and sustainability of solar power systems. Dr Anil Kumar Khatri, Convener of the Seminar, addressed the gathering and elaborated on the theme of the seminar, underlining the relevance of AI-driven solutions in forecasting, optimization and intelligent control of solar energy systems.

The Seminar focused on the strategic importance of solar energy for India's energy security and the necessity of adopting advanced digital technologies such as artificial intelligence to overcome challenges related to intermittency, efficiency and grid integration. The need for research-oriented and industry-driven solutions in renewable energy and researchers were encouraged to

actively contribute to AI-enabled innovations in the solar sector.

The inaugural Keynote address was delivered by Dr Shiv Lal, Head, Department of Renewable Energy, Rajasthan Technical University, Kota. In his Keynote lecture, he discussed the transformative role of artificial intelligence in solar power generation and optimization, highlighting applications such as predictive analytics, real-time monitoring, intelligent energy management and AI-based predictive maintenance. Another Keynote lecture was delivered by Dr Ashok Kherodia, Assistant Professor, Department of Electronics and Communication Engineering, IIIT Kota who elaborated on how Deep Learning, Neural Networks and Intelligent Algorithms are revolutionizing solar energy forecasting, fault detection and energy storage optimization.



The Seminar featured multiple technical sessions spread over two days, comprising keynote lectures and technical paper presentations. The first Technical Session included paper presentations,

focusing on AI-driven predictive maintenance frameworks for solar-wind hybrid systems, neural network-based regional solar PV generation forecasting using satellite data, AI-based resilience optimization of photovoltaic systems under extreme weather conditions and AI-enabled optimization of solar energy storage systems. The presenters highlighted the use of machine learning, deep neural networks, reinforcement learning and optimization algorithms to enhance system reliability, efficiency and lifespan.

Contd. on page 18

Green Energy Technologies and AI-Enabled Sustainable Chemical Processes

Contd. from page 16

A panel discussion was organised on the occasion on the topic 'Sustainability and Green Engineering'. The panel focussed that the chemical engineering fraternity will play a key role in developing cleaner production processes, minimizing waste, reducing carbon emissions and promoting circular economy practices.

The valedictory Session was presided over by Prof (Dr) Baljit Singh Khehra. Dr Jodh Singh presented a comprehensive report on the technical sessions and summarized the key recommendations, including AI integration in chemical processes, advancement of green energy technologies, promotion of sustainable chemistry practices and strengthening of industry-academia collaboration. Dr S K Bhattacharyya, Former Director, NITTTR Chandigarh, delivered the valedictory address as the Chief Guest and appreciated IEI's efforts in organizing the Convention, emphasizing ethics, responsibility and vision for a cleaner future. Dr R P Singh, Associate Director in the Department of Research, Innovation & Incubation at RIMT University, Punjab and Dr S C Sharma, Pro Vice Chancellor [Academics], RIMT University graced the function as the Guests of Honour and addressed the august audience. The Vote of Thanks was presented by Er Karnail Singh, Honorary Secretary, Punjab & Chandigarh State Centre, IEI. Recommendations emanating from the two-day deliberations are as follows.

AI Integration in Chemical Processes

Predictive Modeling & Optimization: Use of AI to design chemical reactions with minimal waste and energy consumption is required.

Smart Monitoring Systems: Deploying AI-enabled sensors for real-time tracking of emissions, energy use, and process efficiency is strongly advocated.

Accelerated Discovery: Applying Machine Learning to identify new catalysts and green solvents is recommended as it is faster than traditional methods.

Advancing Green Energy Technologies

Hybrid Nanofluids & Advanced Materials: Promoting research into nanofluids for efficient heat transfer in renewable energy systems is the need of the hour.

AI-enabled Grid Management: Integrating AI into smart grids to balance renewable energy supply and demand is another prerequisite.

Decentralized Energy Solutions: The community-level solar, wind, and bioenergy projects supported by AI-based predictive maintenance should be encouraged.

Sustainable Chemistry Practices

Circular Economy Principles: Designing chemical processes that reuse by-products and reduce dependency on virgin raw materials is highly recommended.

Eco-friendly Synthesis Routes: Replacing methodology of hazardous reagents with bio-based alternatives and green solvents should be explored.

Collaboration & Ethics

Industry-academia Partnerships: Strengthening collaboration is a prime factor to translate lab-scale AI-enabled innovations into industrial applications. Also, embedding universal human values into AI-driven chemical engineering to ensure equitable and sustainable outcomes should be explored further.

Green India Mission

Tiruchirappalli Local Centre, IEI, in association with Chettinad College of Engineering and Technology, Puliur, Karur organized an All India Seminar on **Green India Mission** during 22 & 23 August, 2025, under the aegis of Interdisciplinary Coordination Committee (ICC), IEI at Chettinad College of Engineering and Technology. The Seminar aimed at creating awareness and promoting dialogue on sustainability, climate change mitigation, green energy technologies, forest conservation and the role of engineering innovations in achieving national and global environmental goals. The event witnessed enthusiastic participation from academicians, industry professionals, researchers and students from various engineering institutions across the country, with number of delegates, who had attended the two-day programme.

In the inaugural session, Dr S Dharmalingam, Council Member, IEI, welcomed the dignitaries, delegates and participants and briefly introduced the theme of the Seminar. In his address, he elaborated on the Green India Mission (GIM), one of the eight missions under India's National Action Plan on Climate Change (NAPCC), emphasizing its objectives of enhancing forest and tree cover, restoring degraded ecosystems and improving livelihoods of forest-dependent communities. He highlighted the importance of forests in ecological balance, food security and climate resilience and underlined the need for engineers to actively contribute to sustainable development initiatives.

Dr A Punitha, Principal, Chettinad College of Engineering and Technology, Puliur, Karur, in her address, stressed the importance of aligning institutional efforts with the United Nations Sustainable Development Goals (SDGs), particularly SDG-17, which focuses on partnerships for sustainable development. She highlighted various green initiatives undertaken by the institution, including the establishment of a green energy cell, implementation of energy conservation measures, waste management practices and sustainability awareness programmes. She emphasized that student involvement in such initiatives is crucial for nurturing environmentally responsible engineers.

Dr R Elankovan, Additional General Manager and Head – Health, Safety and Environment, Bharat Heavy Electricals Limited (BHEL), Tiruchirappalli, graced the occasion as the Chief Guest and delivered the inaugural address. He explained the objectives of the Green India Mission in increasing forest and tree cover, restoring biodiversity and addressing climate change

challenges. Highlighting the Government of India's Green Credit Programme, he emphasized the role of industries, institutions and individuals in adopting sustainable practices. He also shared insights on the 'Harit BHEL' initiatives, focusing on energy efficiency, afforestation, renewable energy adoption and eco-friendly industrial practices. Dr Elankovan encouraged the creation of Miyawaki forests in campuses and urban spaces and urged young engineers to lead innovative and eco-conscious projects aligned with national sustainability goals.

Prof (Dr) M Kumar, Electronics and Communication Engineering Department, Chettinad College of Engineering and Technology delivered an Invited Lecture on the topic 'The 17 Goals – Sustainable Development'. He elaborated on the significance of the United Nations Sustainable Development Goals and highlighted the role of interdisciplinary engineering solutions in achieving sustainable growth. The address provided a comprehensive framework for understanding how engineering innovations can support environmental protection, social equity and economic development. The seminar featured three technical sessions spread over two days, comprising invited lectures and paper presentations.



During the first Technical Session, 20 technical papers in two parallel sessions.

The papers covered a wide range of themes such as optimization of green energy in solar systems, AI-powered renewable energy distribution, Internet of Energy (IoE), sustainable forest management, smart irrigation systems, electric vehicle battery management, green infrastructure and AI and ML applications in forest conservation. The session facilitated active interaction and discussion among participants on innovative approaches for sustainability and green technologies.

The second Technical Session commenced with an invited lecture by Dr T Gobinath, Associate Professor, Department of Computer Science and Engineering, Chettinad College of Engineering and Technology on 'India's National Action Plan on Climate Change (NAPCC)'. He explained the mission-mode approach adopted by the Government of India to address climate change and highlighted the role of engineers in implementing sustainable solutions. This session included eight paper presentations on topics such as urban agriculture, sustainable building design, waste-to-energy conversion, wastewater treatment, forest conservation technologies and sustainable construction materials.

Contd. on page 19

Innovative Role of Artificial Intelligence in Solar Power Generation & Optimization

Contd. from page 17

The second Technical Session focused on emerging themes such as AI-based photovoltaic recycling and end-of-life management from a circular economy perspective, AI-enhanced virtual power plant aggregation of rooftop solar PV systems, artificial intelligence-based fault diagnosis and condition monitoring in solar PV plants and explainable AI for anomaly detection and fault classification. These papers emphasized sustainability, transparency and intelligent decision-making in solar power management.

The third Technical Session featured invited lectures by Dr Namrata Sengar, Assistant Professor, Department of Pure and Applied Physics, University of Kota and Dr Vinod Singh Yadav, Assistant Professor, Mechanical Engineering, NIT Uttarakhand. Both speakers highlighted AI-driven forecasting, optimization, predictive maintenance, intelligent energy storage management and IoT-enabled monitoring as key enablers for

next-generation solar power systems. The lectures underscored how AI transforms conventional solar installations into dynamic, self-learning and resilient energy systems.

The valedictory session was held on the afternoon of 04 September 2025. The session included a summary of the seminar proceedings and feedback from participants. The valedictory address was delivered by Er A K Gupta, Former Energy Advisor to the Government of Rajasthan, who appreciated the efforts of IEI Kota Local Centre in organizing a technically relevant and forward-looking seminar. He emphasized the importance of AI-enabled renewable energy systems in achieving national sustainability goals and encouraged continued collaboration between academia, industry and professional bodies. The programme concluded with a Vote of Thanks by Dr Dharmendra Kumar Jain, Honorary Secretary, Kota Local Centre, IEI, marking the successful conclusion of the All India Seminar.

Biotechnology: Harnessing Life Sciences for a Better Tomorrow

Kerala State Centre, IEI, in association with Chettinad College of Engineering and Technology, Puliur, Karur successfully organized an All India Seminar on **Biotechnology: Harnessing Life Sciences for a Better Tomorrow** during 12 & 13 August, 2025, under the aegis of Interdisciplinary Coordination Committee (ICC), IEI at Thiruvananthapuram. The Seminar aimed to highlight recent advancements, applications and future prospects of biotechnology in healthcare, industry, environment and sustainable development. The programme brought together eminent scientists, academicians, engineers, researchers and students to deliberate on the role of life sciences in addressing societal and environmental challenges.

The event started with the welcome address delivered by Er P Balakrishnan Nair, Chairman, Kerala State Centre, IEI [Session 2023-25]. He welcomed the dignitaries, speakers and participants and emphasized the importance of interdisciplinary collaboration and the growing relevance of biotechnology in national development, healthcare, environmental protection and industrial innovation.

Professor Chandrabhas Narayana, Director, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram, graced the occasion as the Chief Guest. He inaugurated the Seminar by lighting the ceremonial lamp and delivered the inaugural address on the topic 'Biotechnology: Fuelling the Growth of India'. In his address, he highlighted the transformative potential of biotechnology in driving economic growth, strengthening healthcare systems, enhancing agricultural productivity and fostering sustainable industrial processes. He also emphasized the need for skilled manpower, innovation and research-driven approaches to harness the full potential of biotechnology in India.

The Keynote address was delivered by Dr E Sreekumar, Director, Institute of Advanced Virology, Thiruvananthapuram, on the topic 'Biotechnological Approaches in Virology'. He elaborated on the role of modern biotechnological tools in disease diagnosis, vaccine development and pandemic preparedness. His address provided valuable insights into the application of biotechnology in addressing emerging viral diseases and strengthening public health infrastructure.

The Seminar featured a series of technical sessions spreaded over two days, comprising invited lectures and student presentations. During the first technical session, Dr Debasree Dutta, Scientist F, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram, delivered a talk on 'Engineering Embryos: Technology for the Betterment of Human Health and Well-being', highlighting advances in reproductive biotechnology and ethical considerations. This was followed by a lecture by Dr Binod Parameswaran,

Principal Scientist, Biosciences and Bioengineering Division, CSIR-NIIST, Thiruvananthapuram, on 'Microbial Biotechnology for Sustainable Development', wherein he discussed microbial processes for waste valorization and sustainable industrial applications. Dr Sindura K P, Assistant Professor, Department of Molecular Biology and Biotechnology, College of Agriculture, Vellayani, Thiruvananthapuram, delivered a lecture on 'Cracking the Code: Genomics and the Era of Personalized Health', focusing on genomics-driven healthcare solutions.

During the second technical session, an invited lecture was delivered by Dr B Krishna Kumar, Chief Scientist, CSIR-NIIST, Thiruvananthapuram, on 'From Drains to Gains: Environmental Biotechnologies for Resource Recovery in the BioE³ Era', emphasizing sustainable resource recovery and circular bio economy. Dr Pinaki Dey, Senior Scientist, CSIR-NIIST, Thiruvananthapuram, delivered a lecture on 'Harnessing Biology for Industry: The Vital Role of Biotech Engineers in Sustainable Innovation of High-Value Products', highlighting industrial biotechnology applications.

Prof (Dr) G Madhu, Council Member, IEI presented a talk on 'Biomass: A Sustainable Energy Source for the Future', discussing renewable energy prospects through biomass utilization. Technical Session III focused on circular economy and student research contributions. Dr Biju Jacob, Assistant Professor, Sree Chitra Thirunal College of Engineering, Thiruvananthapuram, delivered a lecture on 'Circular Economy in Biotechnology: Waste Valorization through Advanced Bio-processing'. This was followed by student presentations, on the evaluation of antiangiogenic and cytotoxic effects of plant extracts on cancer cell lines and, single-batch bioconversion for enhanced bioethanol yield from pineapple waste. These presentations reflected innovative research and the active involvement of young researchers in biotechnology. For details of technical sessions, please follow the link

<https://shorturl.at/tE46j>

During the valedictory session, Er N Rajkumar, Past Chairman, Kerala State Centre, IEI welcomed the gathering and delivered the presidential address. A comprehensive summation of the seminar proceedings was presented by Er B Gopakumar, Director, CERCON, Kerala State Centre, IEI. Dr K Surendran, Professor (Retd), College of Engineering Trivandrum, attended as the Guest of Honour and delivered the valedictory address, appreciating the relevance of the seminar theme and the quality of technical deliberations. Participation certificates were distributed to the delegates, and Er K R Suresh Kumar, Honorary Secretary, Kerala State Centre, IEI [Session 2023-25] proposed the Vote of Thanks.



Green India Mission

Contd. from page 18

The third Technical Session featured ten paper presentations focusing on advanced and emerging themes such as green data centres, AI-powered forest fire detection systems, zero-emission zones, smart agriculture using AI and remote sensing, carbon footprint analysis, sustainable communication networks, illegal logging detection and eco-friendly construction materials. The presentations reflected innovative thinking and practical applications of technology for environmental conservation. For details of technical sessions, please refer the link

<https://shorturl.at/UiYty>

During the valedictory session, Dr M Senthilkumar, Professor, Department of Electrical and Electronics Engineering, Chettinad College of Engineering and Technology delivered the valedictory address and presented a comprehensive report on the deliberations and outcomes of all technical sessions. The session concluded with appreciation for the organizers, speakers and participants and reaffirmed the collective commitment of the engineering fraternity towards achieving the objectives of the Green India Mission through sustainable and innovative engineering solutions.

Data-Driven Lean: Leveraging Smart Manufacturing for Continuous Improvement

Coimbatore Local Centre, IEI, in association with the Department of Mechanical Engineering, PSG College of Technology (PSGCT), Coimbatore organized an One Day Seminar on the theme **Data-Driven Lean: Leveraging Smart Manufacturing for Continuous Improvement** under the aegis of Mechanical Engineering Division Board [MCDB] on 29 August 2025 at PSG College of Technology, Coimbatore. The Seminar aimed to explore the integration of Lean Manufacturing principles with Data-Driven and Smart Manufacturing technologies, offering insights into the future of intelligent production systems, automation and industrial transformation. The event brought together industry professionals, academicians and students to deliberate on how AI, IoT, data analytics and digitalization can be leveraged for continuous improvement and operational excellence.

The Seminar began with the welcome address delivered by Dr J Krishnamoorthi, Chairman, Coimbatore Local Centre, IEI [Session 2023-25]. In his address, he highlighted the importance of professional membership in IEI and elaborated on the various activities and initiatives undertaken by the Institution to promote technical knowledge sharing and professional development among engineers. Following this, Dr R Jayachitra, Associate Professor, Department of Mechanical Engineering, PSGCT, presented the theme of the seminar, emphasizing the growing importance of integrating data analytics, automation and Lean principles in modern

industrial practices. Dr M Gomathi Prabha, Assistant Professor, Department of Mechanical Engineering, PSG College of Technology, Coimbatore introduced the Chief Guest, setting the stage for the keynote deliberation.

Chief Guest of the session, Er P Guhapranav, Senior Associate Consultant, Infosys Technologies Limited, Bangalore, delivered the Inaugural Address and discussed, how data-driven Lean manufacturing connects to every aspect of industrial and business operations. He stressed the need for engineers to harness data intelligence for decision-making, operational improvement and automation. The inaugural session concluded with a Vote of Thanks proposed by Dr G Madhan Mohan, Honorary Secretary, Coimbatore Local Centre, IEI [Session 2-23-25], who expressed appreciation to the organizers, speakers and participants for making the event a success.



The technical sessions featured four invited lectures by eminent industry experts, covering critical aspects of Lean, AI, Digital Manufacturing and Smart

Industry transformation. The 1st Invited Lecture was delivered by Er P Guhapranav, Senior Associate Consultant, Infosys Technologies Limited, Bangalore on 'AI and Leveraging AI for Automation', where he provided a comprehensive overview of how Artificial Intelligence (AI) extends beyond simple automation to enable intelligent, adaptive systems. He explained the fundamentals of machine learning, deep learning, natural language

Contd. on page 21

Ancient Architecture is a Prelusion to Modern Architecture

Neyveli Local Centre, IEI, organized a One Day Workshop on the theme **Ancient Architecture is a Prelusion to Modern Architecture** under the aegis of Architectural Engineering Division Board [ARDB] on 09 August 2025 at Neyveli. The Workshop was conducted with the objective of revisiting the engineering wisdom, architectural mastery and sustainable design principles embedded in India's ancient structures, which have served as the foundation for modern architectural systems. The deliberations were proposed to be conducted in two languages – English and Tamil, ensuring greater outreach and participation from local professionals, academicians and students. The workshop focused on understanding the merits, features and traditional construction techniques of ancient Indian architecture and their influence on modern-day architectural practices.

The event commenced with a welcome address by Er Appavu Eraniyan, Honorary Secretary, Neyveli Local Centre, IEI [Session 2023-25], who greeted the dignitaries, participants and delegates from NLC India Limited, Annamalai University, University College of Engineering (UCE) Thirukvalai and Prime College of Architecture and Planning, Nagapattinam. He extended warm greetings to all invitees and participants, emphasizing the importance of revisiting ancient architectural heritage in contemporary architectural education and engineering design. Following this, Er M Karthikeyan, Convenor of the Workshop, briefed the gathering on the objectives, content and structure of the workshop, introducing the eminent speakers and highlighting the day's schedule.

Er M Venkatachalam, Director (Power), NLCIL and Chairman, Neyveli Local Centre, IEI [Session 2023-25] delivered the Inaugural Address and appreciated the thoughtful organization and the relevance of the workshop's

theme, noting the high level of expertise of the invited speakers. He emphasized that though modern engineering is often said to be only a few centuries old, it is astonishing to realize that ancient Indian builders had applied engineering principles such as planes, stresses and load distribution more than 800 years ago - albeit without the modern terminology. He referred to two important historical works such as Ancient Historic Achievements – Vol. 1 by Pope



Plummer and History of South India – Vol. 9 by K.A. Neelakanta Sastry. Er Venkatachalam cited the Thanjavur Peruvudaiyar (Brihadeeswarar) Temple as a living testimony to engineering excellence, scientific site selection and artistic brilliance. He highlighted the planned urban systems of ancient townships, which featured organized layouts, community buildings, housing, plumbing and drainage systems. He concluded by expressing gratitude to the speakers for their scholarly contributions and hoped that the workshop would greatly benefit practicing engineers and students alike.

Er S Rajendran, Civil Engineering Consultant and Valuer in his Keynote lecture, explained the Engineering Principles in Ancient Structures – A Study on Thanjavur Peruvudaiyar Temple, elaborating on the architectural characters, structural design principles and construction techniques used in ancient Tamil Nadu structures, especially the Thanjavur Peruvudaiyar

Contd. on page 22

Decarbonisation Challenges and Research Opportunities in Energy-Intensive Industries

Coimbatore Local Centre, IEI, in association with the Department of Mechanical Engineering, PSG College of Technology, Coimbatore successfully organized a One Day Seminar on the topic **Decarbonisation Challenges and Research Opportunities in Energy-Intensive Industries** under the aegis of Interdisciplinary Coordination Committee [ICC] on 02 August 2025 at PSG College of Technology, Coimbatore. The Seminar aimed at creating awareness and fostering discussion on decarbonisation strategies, emerging research opportunities and sustainable technologies in energy-intensive industrial sectors. The seminar brought together academicians, industry experts, professionals and students to deliberate on contemporary challenges and solutions related to climate change mitigation and sustainable industrial development.

The inaugural session commenced with a warm welcome by Dr J Krishnamoorthi, Chairman, Coimbatore Local Centre, IEI [Session 2023-25] and highlighted the significance of IEI and its professional activities and emphasized the importance of active participation of engineers in addressing national and global sustainability challenges. He underlined the relevance of the seminar theme in the context of India's commitment to carbon neutrality and encouraged participants to benefit from the technical deliberations.

Er V V Vaidyaraman, Technical Director, Bosch Global Software Technology Private Limited, Coimbatore, graced the occasion as the Chief Guest. In his address, he emphasized that decarbonisation is a collective responsibility involving industries, governments, technologists and society at large. He explained how digitalisation, smart technologies, renewable energy integration and energy-efficient practices play a crucial role in reducing

carbon emissions. His address set the tone for the seminar by linking decarbonisation efforts with sustainable economic growth and technological innovation.

The first Invited Lecture was also delivered by Er V V Vaidyaraman on the topic 'Need of Decarbonisation in Future for a Sustainable World'. He elaborated on the urgency of reducing greenhouse gas emissions to combat climate change and discussed pathways such as electrification of mobility, adoption of green hydrogen, renewable energy deployment and smart energy management systems.

The technical sessions of the seminar featured a series of invited lectures by eminent speakers from industry and academia. Dr T Prabu, Managing Director, Vyoog Information Private Limited, Coimbatore, delivered the second Invited lecture on 'Innovations in Sustainable Cement Manufacturing' and discussed the challenges faced by the cement industry in reducing carbon emissions and presented

innovative solutions such as alternative fuels, clinker substitution, waste heat recovery and digital process optimization. Through real-time case studies, he demonstrated how technological interventions can significantly lower CO₂ emissions and improve energy efficiency in cement plants. The third Invited Lecture was delivered by Dr R Suresh Kumar, SME – Battery Pack EV, Jayem Automotives Private Limited, Coimbatore, on 'Decarbonisation Challenges and Research Opportunities in Heavy Industries'. His talk focused on the role of electric vehicles in decarbonising the automotive sector. He also highlighted recent policy initiatives supporting EV adoption and emphasized the need for continued research in battery technologies

Contd. on page 22



Data-Driven Lean: Leveraging Smart Manufacturing for Continuous Improvement

Contd. from page 20

processing and computer vision, using practical examples such as Netflix recommendations, Google Maps navigation, and Alexa voice assistants.

The second Invited Lecture was delivered by Er Nikku Rakesh, Procurement Buyer, Alstom Transport India Limited, Chennai on 'Modern Supply Chain', which traced the evolution of global supply chains, from barter systems and the Silk Road to digital and sustainable supply networks. He referred to supply chains as the "invisible backbone of global development", emphasizing the role of connectivity, trust, and data in shaping trade. The third Invited Lecture was presented by Er D Gogul, Engineer, Digital Manufacturing and Sourcing, L&T Technology Services, Chennai on "Lean Digitalization for Future Factory". The session focused on the convergence of Lean Manufacturing and Digital Technologies to create the "Future Factory" one that is efficient, agile and resilient. He explained how Lean principles aim to eliminate waste and maximize value, while Industry 4.0 tools such as AI, IoT, robotics, digital twins and predictive analytics enhance these goals. The fourth Invited Lecture was delivered on Er A K Ezhilan, Senior Project Engineer, ABB Global Industries and Services Private Limited, Bangalore on 'Industrial Engineering in the Digital Era: Lean + Smart Manufacturing', who emphasized the synergy between Lean Manufacturing - which focuses

on minimizing waste and maximizing efficiency and Smart Manufacturing, powered by IoT, AI and data analytics.

The Seminar concluded with a Valedictory Session. During this session, the convenors and coordinators expressed gratitude to the speakers for sharing their valuable expertise and to all participants for their active involvement throughout the day. The discussions and lectures enriched the participants' understanding of data driven Lean systems, equipping them with practical knowledge to apply AI and digital tools for continuous improvement in industrial processes.

The One Day Seminar was a resounding success. It provided an enriching platform for students, researchers and professionals to understand how data analytics, AI and digital technologies are redefining Lean Manufacturing practices. The sessions covered a wide spectrum of topics from AI automation to modern supply chains, digital Lean transformation and industrial engineering in the smart era - bridging the gap between traditional efficiency methodologies and cutting-edge digital innovations. The event concluded on a note of inspiration, with participants motivated to adopt data-driven continuous improvement approaches in their respective fields, aligning with the vision of a smarter, more sustainable industrial future.

Ancient Architecture is a Prelusion to Modern Architecture

Contd. from page 20

Temple. Dr Mani Maaran, Tamil Pandit, Thanjavur Saraswathi Mahal Library delivered Invited lecture on 'Water Management Schemes in the Ancient Period' and focused on ancient water management and irrigation technologies, referencing Tamil literature from the Sangam period (3rd Century BCE – 3rd Century CE). He explained that overflow, drainage and water storage systems were well-developed even in ancient times, showing deep scientific understanding of hydrology and environmental balance.

The Technical Session was chaired by Dr S Thirugnanasambandam, Annamalai University. Er SNVT Sarma, Committee Member, Neyveli Local Committee, IEI served as the Rapporteur, coordinating the proceedings. Three technical papers were presented as part of this session by Ar A Balaji, Professor and Ar T Chandru, Associate Professor, Prime College of Architecture & Planning, Nagapattinam on Architectural Abstractions in Avudaiyar Kovil, Pudukottai, Tamil Nadu. The presenters analyzed the architectural and community-centric design features of the Avudaiyar Kovil structure, emphasizing its social and cultural functions beyond religious use. Er S P Raman, Retd General Manager, NLCIL delivered his lecture on 'Construction Aspects of the Twisted Arch Gate of NLCIL' and explained the modern engineering and architectural concepts behind the newly constructed Twisted Arch Gate at Neyveli Township, detailing its two-way twist geometry and construction methods. The session also included a student on-site visit to the structure for experiential learning. The next paper was presented by Er M Palani, Organising Secretary on Pre-20th Century Tall Structures and Ancient Engineering Marvels in India and presented data and visuals on tall structures from the 3rd to 15th Century AD, including the Grand Anicut (Kallanai) in Tiruchirappalli District, an early example of

sustainable water engineering built in the 2nd Century CE and still in use today.

The Valedictory Session commenced with a welcome address by Er A Eraniyan. In the absence of the Chairman, the session was presided over by Er A Sekar, Council Member, IEI. Er M Karthikeyan, Convenor, summarized the technical proceedings of the day, highlighting the valuable insights shared during the invited lectures and technical paper presentations. In his address, Er A Sekar praised the technical content, scholarly presentations and organizational excellence of the host Centre, and commending the team for successfully hosting a workshop of such depth within a short preparation time. The Chief Guest for the Valedictory Function, Er S Asokan, Retd Chief Engineer, PWD, Government of Tamil Nadu, delivered an inspiring address. He congratulated the organizers and speakers for their contributions and observed that the knowledge shared would be immensely beneficial to both practicing engineers and student participants. The session concluded with a Vote of Thanks by Er M Palani, Organising Secretary, who expressed gratitude to the IEI Headquarters, Architectural Engineering Division Board, NLCIL, the invited speakers, technical paper presenters and all participants for their cooperation and active engagement. The workshop concluded on a positive and reflective note, reinforcing the value of learning from the engineering brilliance of ancient India.

The One Day Workshop successfully provided an interdisciplinary platform blending architecture, civil engineering and cultural heritage studies. Participants gained valuable insights into the engineering logic, construction techniques and sustainable practices of ancient builders and their relevance to modern design. The event fostered an appreciation of heritage-informed engineering, inspiring attendees to draw lessons from the past to build a sustainable and culturally enriched future.

Decarbonisation Challenges and Research Opportunities in Energy-Intensive Industries

Contd. from page 21

and sustainable supply chains. The fourth Invited Lecture was delivered by Dr A P Karthikeyan, Professor, Department of Automobile Engineering, PSG College of Technology, Coimbatore, on 'Hydrogen and Sustainable Fuels for Aviation'. He presented ongoing research and technological developments in hydrogen and alternative aviation fuels, explaining their potential to significantly reduce carbon emissions in the aviation sector.

The Seminar concluded with a valedictory session, marking the successful completion of the one-day programme. The session reflected on the key deliberations and learning outcomes of the seminar, emphasizing the importance of interdisciplinary research, industry-academia collaboration and innovation in achieving decarbonisation goals. The organizers expressed gratitude to the speakers, participants and host institution for their support and active involvement. The programme ended on a positive note, reinforcing the commitment of the engineering fraternity towards sustainable and low-carbon industrial development.

Empanelment as Advocate/ Attorneys & Chartered Accountant who are also Engineers

The Institution of Engineers (India) invites practicing Advocates/Attorneys and Chartered Accountants who are also Engineers to apply for empanelment to enhance their visibility in the public domain. Empanelment entails a nominal application fee of Rs. 5900/- (inclusive of GST) payable by Demand Draft/Multi-city Cheque drawn in favor of "**The Institution of Engineers (India)**" and payable at Kolkata.

Applicants are requested to send a hard copy of their application to the **Deputy Director (Membership)**, The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700020. For further details, please visit our website at <https://www.ieindia.org/webui/iei-home.aspx>.

The World Habitat Day was celebrated by the Institution on October 6, 2025. Brief accounts of celebration as received from various Centres are reported hereunder

STATE CENTRES

Punjab & Chandigarh

Punjab & Chandigarh State Centre, IEI, celebrated World Habitat Day on 06 October 2025 at Chandigarh, through online mode. Ar Jit Kumar Gupta, Former Chief Town Planner and Former Director, College of Architecture, Chandigarh, was the Chief Guest. Key Speaker, Dr (Ar) Prabjot Kaur, Former Director, IKG-PTU Mohali Campus, delivered an insightful address highlighting sustainable, resilient and inclusive urban strategies such as compact planning, affordable housing, efficient public transport, smart mobility, renewable energy use, waste management, water conservation and expanded green spaces. Chief Guest, Ar Gupta elaborated on the theme, noting that rapid urbanisation has intensified overcrowding, pollution, infrastructure gaps, traffic congestion and climate vulnerabilities, calling for innovative and long-term solutions to strengthen urban systems. Number of architects, engineers, guests and students attended the programme, which effectively highlighted the need for future-ready urban development.

Delhi

Delhi State Centre, IEI celebrated World Habitat Day 2025 on 06 October 2025 through online mode. Shri J S Sondhi, Former Additional director General, RDSO graced the occasion as the Chief Guest and delivered lecture on the topic 'Urban Transport Challenges & The Way Forward'. Prof (Dr) Chandan Ghosh, Former Professor, IIT Jammu & HoD, Geo Hazards, NIDM, Ministry of Home Affairs, Government of India delivered the Keynote address.

LOCAL CENTRES

Ahilyanagar



Ahilyanagar Local Centre, IEI, observed World Habitat Day on 10 October 2025 at Ahilyanagar. Er Ms Nikita Balate, Consulting Civil Engineer and Structural Designer, delivered an insightful presentation titled 'Solutions to Urban Crisis: Addressing Displacement

— From Global Challenge to Local Action', highlighting global and national trends in urban displacement caused by conflict, climate change, economic pressures and inadequate planning. Citing Indian displacement hotspots such as Delhi NCR, Mumbai Metropolitan Region, Kolkata, Chennai and Bangalore, she emphasised the severe housing shortages already straining these cities. She outlined a solution framework focusing on inclusive urban planning, improved governance, adequate housing, basic services, social cohesion, livelihood integration, innovative financing and technology adoption aligned with SDGs.

Amravati

Amravati Local Centre, IEI, celebrated World Habitat Day on 06 October 2025 at Amravati by organising an expert talk on the theme. The Keynote address was delivered by Dr P V Khandve, Vice Principal, PRMCE & M, Badnera. Dr Khandve elaborated the significance of the observance and



the pressing challenges of rapid urbanisation, informal settlements and fragmented institutional systems. Dr Khandve underscored the importance of institutional capacity, coordinated governance, diversified financing, monitoring mechanisms and data-driven evaluation. He also outlined a comprehensive crisis-response framework covering preparedness and prevention, climate-resilient planning, resilient infrastructure, emergency response mechanisms and recovery strategies focused on rebuilding and restoring services.

Ghaziabad

Ghaziabad Local Centre, IEI, celebrated World Habitat Day on 08 October 2025 at Ghaziabad. Dr Satish Chandra Gupta, Chairman, Ghaziabad Local Centre, IEI [Session 2023-25] stressed the need to address challenges arising from large-scale migration to cities. Chief Guest, Er Anand Tripathi, Director, Harse Associates, highlighted the increasing strain on metropolitan infrastructure due to the influx of migrants and refugees, and shared practical



examples from metro design projects to illustrate the complexities faced by host communities. He emphasised the importance of proactive planning and suggested remedial measures to promote social harmony and cohesion in

rapidly growing urban areas. The programme was attended by over 15 corporate and 15 non-corporate members.

Indore

Indore Local Centre, IEI, celebrated World Habitat Day 2025 and World Standards Day 2025 on 13 October 2025 at Indore. Shri Alok Kumar Singh, Inspector General, CSWT BSF, was the Chief Guest, and Shri Shashank Kalambkar, Senior Lead Auditor, Bureau Veritas India Private Limited and Mrs Dipti Vyas, Principal Architect and Urban Planner, were the invited speakers.



Shri Shashank Kalambkar emphasised the global importance of standards and noted that around 25,000 products in India meet international norms. Mrs Dipti Vyas discussed the dual impact of urbanisation,

citing declining groundwater, reduced forests, pollution and rising traffic, while highlighting Indore's progress through public participation. Chief Guest, Shri Alok Kumar Singh urged society to understand ground realities and strive to raise standards.

Kanyakumari

Kanyakumari Local Centre, IEI, celebrated World Habitat Day 2025 on 06 October 2025 through online mode. Prof (Dr) M Marsaline Beno, Honorary

Secretary, Kanyakumari Local Centre, IEI highlighted the need for sustainable and inclusive urban planning. Er S Bright Selvin, Chairman of the Centre emphasised the crucial role of engineers in developing resilient, eco-friendly and people-centric urban habitats. The resource person, Dr J Leon Raj, Senior Scientist, CSIR–NEIST, Jorhat, Assam delivered an insightful one-hour presentation blending scientific perspectives with practical strategies for addressing modern urban challenges. He elaborated on innovative approaches required to tackle the multiple crises faced by cities, including infrastructure stress, environmental risks and social vulnerabilities. The event was well attended and received positive feedback for its relevance and thought-provoking discussions on sustainable urban development.

Meerut

Meerut Local Centre, IEI, observed World Habitat Day on 07 October 2025 through online platform and a webinar was organised on the occasion. Er Prashant Sharma, Convener stressed the urgency of sustainable and inclusive approaches to address displacement, environmental stress and urban infrastructure challenges. The first Keynote speaker, Ar Meenal Agarwal, President, Meerut Architect Association, delivered an insightful address on 'Urban Displacement & Sustainable Cities', highlighting India's urbanisation trends, migration pressures and the critical need for coordinated efforts among engineers, architects and policymakers. The second Keynote, delivered via video message by Ar Rajat Bhattar, Principal Architect, Suresh & Rakesh, focused on integrated planning, green infrastructure and collaborative policy frameworks for managing urban crises. An interactive Q&A session enabled participants to engage actively with the speakers. The webinar was well received and effectively promoted awareness on sustainable and resilient urban development.

Palghat

Palghat Local Centre, IEI, observed World Habitat Day on 06 October 2025 at Palakkad. Er A V Rajappan, Chairman, Palghat Local Centre, IEI [Session 2023-25] elaborated the significance of the theme and the



collective responsibility to build sustainable and resilient cities. The Keynote address was delivered by Dr Deepak Jaiswal, Assistant Professor, ESSENCE,

Department of Civil Engineering, IIT Palakkad. Dr Jaiswal highlighted global urban challenges, including climate change, economic hardship and the expanding housing crisis and emphasised the importance of green spaces and nature-based solutions.

Roorkee

Roorkee Local Centre, IEI, in association with the Department of Architecture & Planning, IIT Roorkee, celebrated World Habitat Day on 06 October 2025 at Roorkee. The programme featured expert lectures by Ar Gaurav Raheja, Former Head and Professor, Department of Architecture & Planning, IIT Roorkee; Ar Sameer Ali, Assistant Professor, Department of Architecture & Planning, IIT Roorkee and Ar Anup Kumar Prasad, Scientist, Department of APEE, CSIR-CBRI, Roorkee. Prof Raheja stressed the need for inclusive, resilient and sustainable habitats grounded in universal design and human-centric planning. Ar Sameer Ali discussed challenges of rapid urbanisation



Tiruvallur

Tiruvallur Local Centre, IEI, celebrated World Habitat Day on 13 October 2025 at Tiruvallur. The programme, featured a Keynote address by Dr D Vasudevan, former Joint Chief Environmental Engineer, Tamil Nadu



Pollution Control Board, Chennai Zone, who highlighted pressing urban environmental challenges such as pollution, waste management and the need for sustainable city planning. The session

also underscored the importance of environmental governance, policy-driven initiatives and sustainable engineering practices in shaping future cities. Participants gained valuable insights into global and local crisis management strategies and were motivated to contribute to research and projects promoting sustainable urban development. The event concluded with a Vote of Thanks on behalf of IEI Tiruvallur Local Centre, appreciating Dr Vasudevan's contribution and the active participation of attendees, reaffirming the Centre's commitment to fostering environmental awareness and sustainable engineering practices.

Vallabh Vidyanagar

Vallabh Vidyanagar Local Centre, IEI, celebrated World Habitat Day 2025 on 07 October 2025 through an online session emphasizing the need for



sustainable, resilient and inclusive urban planning. Dr Amitkumar Dipakbhai Raval, Honorary Secretary of the Centre, highlighted the significance of the UN-

initiated observance and the vital role of engineers in shaping sustainable cities. The event featured an expert lecture by the Guest Speaker, Er Nitesh Chandrakar, Sector Portfolio Manager (Urban & Waste – Circular Economy), French Development Agency (AFD), New Delhi, who delivered an insightful presentation on resilient urban systems, innovative waste management models, circular economy practices and global case studies demonstrating integrated policy and technology-driven solutions. His talk underscored the importance of citizen participation, resource recovery and green infrastructure in mitigating urban crises. An engaging Q&A session followed, with participants discussing smart cities, sustainability challenges and adaptive planning strategies. The programme witnessed active participation from faculty members, engineers, researchers and students nationwide.

Know-Your-Member (KYM)

Is your mobile number & e-mail updated with us? If not, then please forward your Know-Your-Member (KYM) form immediately to participate in the elections of IEI from 2026 onwards.

You are requested to forward your KYM along with the self-attested copy of photo ID proof to the address given below:-

Deputy Director (Membership)

The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700020

E-mail: datamemb@ieindia.org

The form is available on IEI Website <https://shorturl.at/8Q5tF> or scan the code:



IEI Celebrates

World Standards Day 2025

Shared vision for a better world: Spotlight on SDG 17 - Partnerships for the Goals

The World Standards Day was celebrated by the Institution on October 14, 2025. Brief accounts of celebration as received from various Centres are reported hereunder.

STATE CENTRES

Uttar Pradesh

Uttar Pradesh State Centre, IEI, celebrated World Standards Day on 14 October 2025, Keynote speaker, Er Ashok Kumar Singh, Former Engineer-in-Chief (ENC) and HOD, Uttar Pradesh Irrigation Department, emphasized that standards form the backbone of technical progress and global cooperation, ensuring quality, transparency, sustainability and fostering international collaboration essential to achieving SDG 17. He underscored that standardization not only assures product safety and global competitiveness but also bridges industries, society and the environment. The Convener of the programme, Er M K Gupta, convener reiterated IEI's commitment to promoting technical awareness and affirmed that the theme encourages collective action for a sustainable future through partnership.



Uttarakhand

Uttarakhand State Centre, IEI, observed World Standards Day on 14 October 2025, commemorating the global collaborative efforts of experts in developing voluntary technical standards that facilitate trade, enhance product quality and ensure safety and efficiency in engineering and industrial practices. The programme began with a welcome address by Er Narendra Kumar Yadav, Chairman, Uttarakhand State Centre, IEI [Session 2023-25] emphasized the importance of national and international standards in promoting quality, safety and sustainability across engineering disciplines. Er Satish Kumar Chauhan, Honorary Secretary, Uttarakhand State Centre, IEI [Session 2023-25] outlined the objectives of the observance and highlighted the role of standardization in fostering innovation, industrial development and global competitiveness. A detailed technical presentation was delivered by Dr Prashant Agarwal, Director, IEI Civil Engineering Laboratory, who spoke on the significance of material testing standards, calibration procedures and the contribution of accredited laboratories to engineering excellence and quality assurance. The event saw enthusiastic participation from corporate members, engineering students and professionals from NIELIT, who engaged in an interactive discussion on adopting standard practices to improve efficiency and reliability in engineering work.



LOCAL CENTRES

Amravati

Amravati Local Centre, IEI, celebrated World Standards Day 2025 on 19 October 2025, where an expert talk was delivered by the Keynote speaker, Dr Sharad Mohod, Convener, Maharashtra State Centre, IEI. Delivering the keynote address, Dr Mohod elaborated on the role of standards in ensuring safety, quality, interoperability and global cooperation, with special emphasis on SDG 17, which promotes partnerships for sustainable development.



Kanyakumari

Kanyakumari Local Centre, IEI, observed World Standards Day 2025 through virtual mode on 16 October 2025. A technical session was organised, that highlighted the critical role of standardization in fostering global sustainability and interconnectivity. Prof (Dr) M Marsaline Beno, Honorary Secretary of the Centre stressed the need for quality standards to drive sustainable progress. Er S Bright Selvin, Chairman of the Centre underscored the responsibility of engineers in formulating and implementing global standards that ensure safety, innovation and long-term development. The Keynote presentation was delivered by Dr Suresh Seetharaman, Professor, Electrical Engineering Department, JCT College of Engineering and Technology, Coimbatore and Career Guidance Expert & Board Director, IGEN, who offered deep insights into global partnerships, standardization frameworks and collaborative practices central to UN SDG 17 – Partnerships for the Goals. The interactive one-hour session saw enthusiastic participation from members and students.

Meerut

Meerut Local Centre, IEI, celebrated World Standards Day 2025 on 18 October 2025 through online mode. Speaker of the session, Er Ajay Maurya, Scientist 'D' / Joint Director, BIS, Chandigarh, delivered an insightful presentation aligned with the global theme. He highlighted how international standards, developed through worldwide collaboration, create a unified framework enabling governments, industries and organisations to work collectively toward achieving the UN Sustainable Development Goals, especially SDG 17 focused on global partnerships. An engaging Q&A session followed, during which he clarified participants' queries on hallmarking procedures and provided practical tips.

Palghat

Palghat Local Centre, IEI, celebrated World Standards Day on 16 October 2025 at Palakkad, Keynote speaker of the session, Er Vinith Kumar, Scientist 'E' and Director, Bureau of Indian Standards [BIS] delivered a comprehensive address on BIS's pivotal role in establishing a unified standards ecosystem



through collaboration among industry, academia and consumers. He also outlined Kerala's achievements through the Kochi Branch Office, including product licensing, hallmarking, laboratory recognition and initiatives such as Standards Clubs, hackathons and quality awareness campaigns like the BIS Care App and Quality Connect.

Silchar



Silchar Local Centre, IEI, celebrated World Standards Day on 14 October 2025 at Silchar. Dr Agnimitra Biswas, Honorary Secretary, Silchar Local Centre, IEI explained the objectives of World Standards Day. Er Dibakar Bhattacharjee, Chairman,

Silchar Local Centre, IEI highlighted the significance of standardization practices adopted by Indian, US and European agencies. The Keynote address was delivered by Dr Aninda Bijoy Paul, Senior Advisor and Site Head, National Institute for Automotive Inspection, Maintenance and Training [NIAIMT], who elaborated on the theme using a detailed presentation. He explained the central motor vehicles norms, standards, inspection and testing of vehicles etc.

Tiruvallur



Tiruvallur Local Centre, IEI, celebrated World Standards Day 2025 on 14 October 2025 at Tiruvallur. The Keynote lecture was presented by Dr G Moorthy, Professor & Head, Mechanical Engineering Department,

Velammal Institute of Technology. Dr Moorthy, highlighted the crucial role of international standards in uniting industries, academia and governments to achieve the Sustainable Development Goals. The 90-minute session encouraged participants to apply standard-driven approaches in research, design and industrial practices, strengthening their understanding of SDG 17 and its relevance to engineering. The programme concluded with a heartfelt Vote of Thanks on behalf of Tiruvallur Local Centre, IEI acknowledging Dr Moorthy's insightful address and the active engagement of participants, reaffirming the centre's commitment to promoting excellence in engineering, standardization and sustainable growth for a better future.

Trichur

Trichur Local Centre, IEI, observed World Standards Day 2025 on 20 October 2025 at Trichur, Chief Guest, Dr Sekhar A C, Procurement Expert, Technical

Support Consultancy, KSWMP and Former Executive Engineer, Kerala State PWD. delivered the Keynote address. Dr Sekhar emphasized that global goals cannot be achieved by any single country, organisation, or sector in isolation, highlighting that standardisation offers the trusted, transparent, and unified framework essential for international collaboration.



Udaipur

Udaipur Local Centre, IEI, celebrated the World Standards Day on 14 October 2025 at Udaipur. Chief Guest of the function was Shri B R Bhati, RAS, Former Additional District Collector, Udaipur. Er Bajrang Singh, Additional Chief Engineer, PWD (Power Sector), Udaipur was the Chief speaker. Er Piyush Javeria, Honorary Secretary, emphasized the importance of standardization in ensuring innovation, safety and sustainable development worldwide. Addressing the gathering as Chief Guest, Shri Bhati explained that standards form the backbone of cooperation, enabling safe, reliable and coordinated solutions to global challenges such as climate change, resource



management and resilient infrastructure. Chief Speaker, Er. Bajrang Singh elaborated on the vital role of standards in promoting quality, technological interoperability, environmental sustainability and international trade, noting their contribution to reducing carbon emissions and supporting SDGs. A special highlight of the event was Er Praful Kothari administering the BIS oath to members for the first time at the Udaipur Centre.

Vallabh Vidyanagar

Vallabh Vidyanagar Local Centre, IEI, celebrated World Standards Day 2025 on 14 October 2025 through online platform. Dr Amitkumar D Raval, Honorary Secretary of the Centre emphasized the vital role of standardization in supporting sustainable development and fostering innovation aligned with global SDGs. The keynote address was delivered by Prof (Dr) Indrajit N Patel, Provost, CVM University and Former Principal, BVM Engineering College, Vallabh Vidyanagar, who highlighted the interconnection between standardization and sustainability, the importance of partnerships among institutions, industries and communities and the role of engineers in ensuring safety, reliability and environmental protection through adherence to standards, citing real-life examples of successful collaborations. An interactive Q&A session allowed participants to discuss engineering standards, sustainable design and academic-industry partnerships. The event saw enthusiastic participation from faculty members, engineers, researchers and students, enhancing awareness of the significance of standards in achieving SDGs.

World Engineering Day for Sustainable Development 2026

The World Engineering Day for Sustainable Development 2026 has to be celebrated by all Centres of IEI on 04 March 2026 on the theme **Smart Engineering for a Sustainable Future**.

[Reference Link: <https://worldengineeringday.net/>]

The reference link for World Engineering Day WFEO Hackathon 2026
<https://zealous.co/worldengineeringday/opportunity/wed-wfeo-hackathon-2026/>

Professional Engineers (PE) Certification by IEI — A Pathway towards Success

Get the **Professional Engineers Certification** by IEI to enhance your knowledge, skill and competency and also elevate your career by becoming a member of an elite group of engineers.

Who can be a Professional Engineer —

- Having Bachelor's Degree in Engineering or equivalent recognized by Statutory Authority or Government of India;
- Having experience of at least 5 years in engineering practice.

Why become a Professional Engineer (PE) —

- Improved career prospects and employability;
- Makes you suitable to attain higher levels of authority and responsibility;
- It is envisaged that in future, only a professional engineer would be empowered to prepare, sign, seal and submit engineering plans and drawings to a public authority for approval, or to seal engineering work for public and private clients;
- With growing economy and large scale expansion of infrastructure, the demand of PE certified engineers is expected to be much higher.

How to apply for Professional Engineers?

The details are available on IEI Website
<https://shorturl.at/mRIYu>

or

scan the code



For any query and assistance, please send email to: pe@ieindia.org or contact (033) 40106275

Discount at the Samsung e-store for IEI Corporate Members

Exclusive access to the Samsung e-store for IEI Corporate Members. This shall enable the Corporate Members to procure the Samsung Products at a discounted rate. The Samsung e-store can be accessed at www.samsung.com/in/multistore/iei using your Membership No. and email id/Mobile Number.

Corporate Air Ticketing for IEI Members

Corporate Members may book Corporate Air Ticket through M/s EBIX Travels Private Ltd. For details please visit <https://www.ieindia.org/webui/IEI-AirTickets.html>

Chartered Engineer Certification

The Members who have not availed the Chartered Engineer Certificate [CEng(I)], are requested to apply online:

<https://www.ieindia.org/WebUI/iei-Memb.aspx#chartered-engineering>

Be Proud to be a Certified International Professional Engineers (IntPE) by IEI

Who can apply for International Professional Engineers?

Basic Requirements for certification as International Professional Engineer

- ⊙ Bachelor's Degree in Engineering or equivalent recognised by Statutory Authority or Government of India;
- ⊙ Experience of 7 years in engineering practice. Out of 7 years of experience 2 years in a responsible position of significant engineering activity.

How to apply for International Professional Engineers?

For details
please visit the link:

<https://shorturl.at/j36fo>

or

scan the code →



Why become an International Professional Engineer??

International Professional Engineer (Int.PE) Certification enables engineering professionals to advance their career aspiration in wide ranging ways.

- ⊙ The International Professional Engineers, registered with IEI, may receive credit when seeking registration or licensure in the jurisdiction of another member i.e this will facilitate an engineer in mobility across member jurisdictions;
- ⊙ Empowered by International Professional Engineers Agreement (IPEA), IEI maintains the register of the International Professional Engineers (IntPE) in India;
- ⊙ Enhances an engineering professional's stature and gives confidence to employer/ prospective employer about competency of Certified Engineer;
- ⊙ IntPE Certificate facilitates an engineer in Professional Mobility.

For any query and assistance, please send email to: pe@ieindia.org or contact (033) 40106220

58th Engineers' Day 2025

Theme : Deep Tech & Engineering Excellence: Driving India's Techade

The 58th Engineers' Day was celebrated by the Institution all over the country on September 15, 2025 to commemorate the 164th birth anniversary of legendary Engineer-Statesman Bharat Ratna Sir M Visvesvaraya. Brief accounts of the celebration as received from various Centres are reported hereunder.

STATE CENTRES

Andhra Pradesh



Andhra Pradesh State Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at Vijayawada. Prof (Dr) M L S Deva Kumar, Chairman, AP State Centre, IEI emphasized the legacy of

Sir Visvesvaraya and the vital role of engineers in nation-building. A short audio-visual film on Sir Visvesvaraya's life set an inspiring tone. Prof K Ramji, Vice Chancellor, Krishna University, delivered the Keynote address on the theme, highlighting AI, IoT, advanced manufacturing and renewable systems shaping India's future. Dr Gokaraju Gangaraju, Educationist and Industrialist, graced the function as the Guest of Honour and addressed the gathering.

Arunachal Pradesh



Arunachal Pradesh State Centre, IEI, celebrated the 58th Engineers' Day at North Eastern Regional Institute of Science and Technology (NERIST) on 15 September

2025. Chief Guest, Prof Sarsing Gao, Dean (Academics), NERIST, delivered an inspiring Keynote on the role of innovation-driven engineering for sustainable national growth. A documentary on Sir M Visvesvaraya highlighted his visionary contributions. The technical lecture on the theme was delivered by Er Aswini Kumar Patra, Assistant Professor, Department of CSE, NERIST, who elaborated on the transformative impact of AI, Machine Learning, Robotics, Quantum Computing and Data Analytics in shaping India's emerging tech landscape. He emphasized multidisciplinary collaboration, skill development and innovation-driven research as key to bridging academia-industry gaps. The session was well received for its clarity and relevance.

Assam



Assam State Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at Guwahati. Speaker of the day, Dr Chandan Karfa, Associate Professor, Computer Science and

Engineering, IIT Guwahati delivered an insightful lecture on the focal theme, highlighting the transformative impact of AI, the evolution of digital technologies and their influence on future innovation.

Haryana

Haryana State Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at Panipat Institute of Engineering & Technology (PIET), Samalkha, Panipat. The event was graced by the Chief Guest, Er Bhupinder Singh Rinwa, Chief Environmental Engineer, Haryana State Pollution Control Board. Dr J S Saini, Dean (Engineering), PIET, spoke on the occasion. Er K C Sethi, Past Vice President, IEI, delivered an inspiring life sketch of Bharat Ratna Sir Visvesvaraya, highlighting his discipline, visionary engineering contributions and enduring influence on young engineers. The keynote address was delivered by Dr Jitender Chhabra, Professor, Department of Computer Engineering, NIT Kurukshetra, discussed the transformative role of deep technologies, including AI, quantum computing, robotics, semiconductors and advanced materials - emphasizing the need for rigorous R&D and engineering excellence.

Kerala

Kerala State Centre, IEI, celebrated the 58th Engineers' Day on 17 September 2025 at Thiruvananthapuram. Guest Speaker of the session was Er S Sreekala, Chairperson, Kerala State Pollution Control Board. Er P Balakrishnan Nair, Chairman, Kerala State



Centre [Session 2023-25] reflected on the life and legacy of the legendary engineer, highlighting his vision and contributions to nation-building. The thematic lecture was delivered by Er S Sreekala, who emphasized the role of advanced technologies in shaping India's engineering future and promoting sustainability. The event acknowledged the significance of Engineers' Day in inspiring the engineering fraternity to uphold excellence and innovation.

Madhya Pradesh



Madhya Pradesh State Centre, IEI, observed the 58th Engineers' Day at Bhopal on 15 September 2025. The event brought together eminent engineers, academicians, industry professionals and students

for a series of technical talks, expert lectures and interactive discussions focused on engineering innovation, digital transformation and sustainable development. Distinguished speakers highlighted the importance of continuous learning, ethical engineering practices and the crucial role of technology in addressing national challenges. Special sessions emphasized green technologies and the responsibility of engineers in driving sustainable progress. An inspirational session encouraged young engineers to engage creatively in solving real-world problems. A felicitation ceremony honoured outstanding engineers from diverse fields for their remarkable contributions to the profession and society. The awardees shared their experiences,

motivating the audience toward excellence. The celebration concluded with a summary of key takeaways and discussions on future initiatives, reaffirming engineering as a cornerstone of nation-building and long-term development.

LOCAL CENTRES

Alwar

Alwar Local Centre, IEI, observed 58th Engineers' Day on 14 September 2025 at Alwar. The event was graced by Shri Sanjay Sharma, Minister of State (Independent Charge) for Forest, Environment & Climate Change, and Science & Technology in the Government of Rajasthan as Chief Guest, with Shri Devi Singh Shekhawat, former Chairman, UIT Alwar and Hon'ble MLA, as the Guest of Honour. Er Ramakant Sharma, Head, Ashok Leyland Plant, Alwar, delivered the Keynote address. A special issue of Vihan was released by the guests, carrying messages from national leaders.



Amravati

Amravati Local Centre, IEI, celebrated the 58th Engineers' Day during 13-15 September 2025 at Amravati. Dr Atul Wadegaonkar, Chief General Manager, MKCL, Maharashtra and managing Director, RKCL, Rajasthan delivered the Keynote lecture on the theme, urging students to leverage AI for rapid technological advancement. Dr Atul Borade, Principal, Government Polytechnic Amravati, Er Arun Gadegone, Chief Engineer, Amravati, and Dr Nitin Ingole, Chairman, IWWA, also addressed the audience.



Angul

Angul Local Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at NALCO, Angul, featuring distinguished experts and vibrant participation from professionals and students. Chief Guest, Er Srinivasa Subrahmanyam Neralla, Executive Director, S&P, NALCO, lauded the Centre's relentless efforts in knowledge dissemination, even during the challenging COVID-19 period, and released a Souvenir to mark the occasion. The Keynote session covered Genetic Engineering, Additive Manufacturing, 3D Printing, Semiconductor advancements, Coal Gasification, Environmental Sustainability and emerging healthcare technologies and captivating the audience.



Chhatrapati Sambhajinagar

Chhatrapati Sambhajinagar Local Centre, IEI, celebrated the 58th Engineers' Day on 19 September 2025 at its premises. The programme was graced by the Chief Guest, Dr Indra Mani, Vice Chancellor, Vasantnao Naik Marathwada Krishi Vidyapeeth, Parbhani, Guest of Honour, Er Atul Chavan, Chief Engineer, Public Works Region, Chhatrapati Sambhajinagar and Keynote speaker, Dr Arvind Shaligram, Managing Director & CEO, Savitribai Phule Pune University Research Park Foundation, Pune.



Indore

Indore Local Centre, IEI, celebrated the 58th Engineers' Day on 15 September and 20 September 2025 at Indore. Chief Guest of the session was Er Shankar

Lalwani, Hon'ble Member of Parliament, Indore. On 20 September 2025 the technical session was held at the Brilliant Convention Centre, graced by the Chief Guest, Hon'ble Shri Tulsiram Silawat, Cabinet Minister, Water Resources Department, Govt of MP. Keynote Speaker, Mr Amitabh Tewari, Assurance & Regional Head, TCS Indore, delivered an insightful address on AI, ML, Blockchain, and Quantum Computing etc. Er Ankur Pandit from TCS discussed the potential of Quantum Computing in the field of Cryptography, Weather Forecasting etc.



Jabalpur

Jabalpur Local Centre, IEI, in collaboration with the Department of Electrical Engineering, Jabalpur Engineering College (JEC), celebrated the 58th Engineers' Day on 15 September 2025 at Jabalpur. The programme was graced by Dr Rajeev Chandak, Principal, JEC; Prof R K Jain; and Dr A K Sharma, former Principals and Dr Shailja Shukla, HOD, Electrical Engineering Department, Jabalpur Engineering College. The event observed active participations by the students and professionals and a book release function was held on the occasion.



Jammu

Jammu Local Centre, IEI, celebrated the 58th Engineers' Day at Jammu on 15 September 2025, with Sh Surinder Kumar Choudhary, Hon'ble Deputy Chief Minister of J&K, as the Chief Guest and Dr Devansh Yadav, IAS, Commissioner, Jammu Municipal Corporation & CEO, Jammu Smart City Limited, as the Guest of Honour. The latest issue of the Newsletter of the Local Centre was published on the occasion.



Kakinada

Kakinada Local Centre, IEI, in collaboration with Jawaharlal Nehru Technological University (JNTU) Kakinada and the Retired Irrigation Engineers Association, Kakinada, observed the 58th Engineers' Day on 15 September 2025. The programme was graced by Chief Guest Prof C S R K Prasad, Hon'ble Vice Chancellor, JNTUK Kakinada and Guest of Honour, Er Ch Purushottama Gangaraju, former Superintending Engineer, Water Resources Department. In his address,



Prof Prasad highlighted the significance of the theme while Er M S Sai Kumar, Superintending Engineer (Retd), elaborated on Sir M Visvesvaraya's legacy as a visionary engineer and economic planner whose contributions continue to inspire generations. Speakers emphasized the growing influence of deep tech and AI in engineering solutions for sustainability, infrastructure and national development.

Kalaburgi

Kalaburgi Local Centre, IEI, celebrated 58th Engineers' Day on 15 September 2025 at Kalaburgi. Er Tippannagouda S Annadani, SE (RLC), Krishna Bhagya Jala Nigam Limited (KBJNL), graced the event



Contd. on page 33

IEI Celebrates Royal Charter Day

The Institution of Engineers (India) was incorporated by Royal Charter on September 9, 1935 by King and Emperor George V at the Court at Buckingham Palace, London and remains the only professional body in India to be accorded this Honour. This endowed the Corporate Members of the Institution with the right to use the title 'Chartered Engineer' after their names, implying that they are qualified engineers deemed worthy to hold a Charter. The 'Royal Charter Day' was celebrated by IEI all over the country on September 9, 2025. Brief accounts of celebration, as received from various Centres, are reported hereunder.

STATE CENTRES

Assam

Assam State Centre, IEI, celebrated Royal Charter Day on 09 September 2025 at Guwahati. Er Pulak Sarmah, Immediate Past Honorary Secretary of the centre, delivered a presentation on the incorporation of IEI by Royal Charter, explaining its meaning, purpose and legal



authority granted by the British Crown. He elaborated on the Institution's journey since its establishment in 1920, its incorporation by Royal Charter on 09 September 1935 at Buckingham Palace by King George V and the prestigious status it continues to hold under Article 372 of the Constitution of India. Er Sarmah also traced IEI's history, including its founding leadership and landmark events. The session witnessed active interaction from members, reflecting keen interest and appreciation.

Kerala



Kerala State Centre, IEI, celebrated Royal Charter Day on 10 September 2025 at Thiruvananthapuram. The Royal Charter Day lecture was delivered by Er N Rajkumar, Past Chairman, Kerala State Centre, IEI who

highlighted the historic significance of the Royal Charter granted to The Institution of Engineers (India) and its pivotal role in shaping the engineering profession in the country. The event served as a meaningful reminder of IEI's illustrious heritage and continued commitment to advancing the engineering profession.

Madhya Pradesh

Madhya Pradesh State Centre, IEI, celebrated Royal Charter Day on 15 September 2025 at Bhopal. The event brought together eminent engineers, academicians, industry professionals and students for a series of technical talks, expert lectures and interactive discussions focused on engineering innovation, digital transformation and sustainable development. An inspirational session encouraged young engineers to engage creatively in solving real-world problems. The celebration concluded with a summary of key takeaways and discussions on future initiatives, reaffirming engineering as a cornerstone of nation-building and long-term development.

Uttarakhand

Uttarakhand State Centre, IEI, celebrated Royal Charter Day on 09 September 2025 at Dehradun. Er Narendra Singh, Past President, IEI, graced the occasion as the Chief Guest. The event saw enthusiastic participation from distinguished engineers, academicians and representatives of government departments, PSUs and private organizations. Er Narendra Singh emphasized



the crucial role of engineers in national development and urged the adoption of modern technologies and sustainable practices in infrastructure development.

LOCAL CENTRES

Amravati

Amravati Local Centre, IEI, celebrated Royal Charter Day on 09 September 2025 at Amravati, marked by an expert talk on the topic 'National Education Policy (NEP) 2020: Transforming Technical Education for Atmanirbhar Bharat', delivered by Chief Guest and Keynote Speaker, Dr D T Ingole, Principal, Takshshila Institute of Engineering & Technology, Darapur and



Director, Shri Dadasaheb Gawai Charitable Trust, Amravati. Dr Ingole offered an insightful and interactive presentation outlining the vision, objectives and transformative features of NEP 2020, highlighting

its emphasis on multidisciplinary learning, skill integration, industry collaboration, creativity and ethical responsibility to foster self-reliant and innovative engineering professionals. Following the expert address, Dr Sharad Mohod, Convener, MSC Mumbai and Past Chairman, Amravati Local Centre, IEI shared his reflections, appreciating Dr Ingole's structured deliberation and emphasizing institutional implementation of NEP 2020 through faculty upskilling and interdisciplinary approaches. The programme concluded with appreciation from participants for the relevance and depth of the session.

Kanyakumari

Kanyakumari Local Centre, IEI, celebrated Royal Charter Day 2025 on 09 September 2025 at Kanyakumari, highlighting nine decades of the Institution's commitment to engineering excellence and national development.



The event featured Er S Natrajan, Former Special Chief Engineer, PWD as the Keynote Speaker, who delivered an inspiring address on IEI's rich legacy and its role in promoting

professional ethics and innovation. Prof (Dr) M Marsaline Beno, Honorary Secretary of the Centre spoke on 'Sustainability and Today's Need', emphasizing the integration of sustainable practices in engineering education and infrastructure. Er S Bright Selvin, Chairman of the centre highlighted IEI's 90-year journey and engineers' contributions to nation-building.

Sunabeda

Sunabeda Local Centre, IEI, celebrated Royal Charter Day on 09 September 2025 at Rayagada, marking a significant occasion for the engineering

fraternity. Dr C V Gopinath, Director, MITS College, Raigada graced the event as the Chief Speaker. Er Sanjaya Kumar Bishoyi, Honorary Secretary, Sunabeda Local Centre, IEI underlined the relevance of observing Royal Charter Day nationwide and spoke on its legacy and contributions to the growth of engineering in India. Er Ramanuja Nayak, Principal, MITS College, acknowledged the meaningful contributions of the dignitaries and participants, making the celebration a memorable and inspiring event.



Tiruchirappalli

Tiruchirappalli Local Centre, IEI, in association with the Computer Society of India, Tiruchirappalli Chapter, observed Royal Charter Day on 09 September 2025 through online mode and organised a lecture session.. Speaker, Dr K Akila, Assistant Professor (SrG), Department of Computer Science and Engineering, SRM Institute of Science and Technology, Vadapalani Campus, Chennai delivered an insightful lecture, engaging the audience with her expertise and offering valuable perspectives relevant to

the computing domain. The session witnessed enthusiastic participation from 91 delegates, reflecting strong interest in the topic and collaborative initiatives between IEI and CSI.

Tuticorin

Tuticorin Local Centre, IEI, celebrated Royal Charter Day on 10 September 2025 at Tuticorin. Er Justin Jagadeep Kumar, Chairman, Tuticorin Local Centre, IEI highlighted the historical significance of the Royal Charter, praising IEI's remarkable contribution in shaping lakhs of skilled engineering professionals across the nation.



Chief Guest, Er Emerson Irudayaraj, Director, Sacred Heart Institute of Engineering, delivered the Keynote address elaborated on the establishment, legacy and

functions of IEI, emphasizing the importance of Royal Charter Day and the Institution's stature as India's oldest and largest professional body with sixteen engineering divisions connecting engineers worldwide.

Upgradation of Membership

Members of The Institution of Engineers (India) who meet the prescribed eligibility criteria are encouraged to apply for upgradation of their membership as follows:

Associate Members (AMIE) who fulfill the required experience and qualifications may apply for upgradation to the Member (MIE) or Fellow (FIE) grade, as applicable.

Members (MIE) who satisfy the requisite professional standing and contributions are invited to apply for elevation to the prestigious grade of Fellow (FIE).

For detailed eligibility criteria and application procedures, please contact:

Deputy Director (Membership)

The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700020

✉ dd.membership@ieindia.org



The Institution of Engineers (India)

IEI YOUNG ENGINEERS AWARD 2026

Notification

The Institution of Engineers (India) is a multi-disciplinary professional body of engineers with 15 engineering disciplines and over 9,00,000 members in India and abroad. The Institution was established in 1920 and was incorporated by Royal Charter in 1935. It has been in the forefront of engineering profession addressing the socio engineering problems for progress of the country. IEI functions among professional engineers, academicians, research workers to update their professional knowledge through continuous professional development. With its large international linkages and a network of 124 Centres in India and Six Overseas Chapters, the Institution has built up wide reach and large infrastructure to meet its objectives of promoting engineering in all aspects.

With a view to promote the pursuit of excellence in the field of engineering, IEI has instituted 'IEI Young Engineers Award'. The Award consists of a Plaque and a Certificate. The purpose of the Award is to recognize outstanding achievements/contributions made by young engineers in engineering research, excellence in engineering technology development, technology transfer, etc. Any engineer citizen of India not older than **35 years** of age/women engineer citizen not older than **37 years** of age as on **March 31, 2026** is eligible for the Award, provided that he/she is a Corporate Member of IEI or has applied for IEI Membership. The IEI Young Engineers Award is presented to awardees for all the 15 Engineering Divisions of the IEI during the respective National Conventions.

The Application Proforma may be downloaded from IEI website <https://www.ieindia.org/webui/IEI-Activities.aspx#young-engineering-awards> or scan the QR code below. Soft copy of the filled-in application proforma should be forwarded to award@ieindia.org by **March 31, 2026**. Further, six copies of the duly filled application form, along with all supporting documents, endorsed by appropriate authority should be sent to the below mentioned address so as to reach us latest by **April 15, 2026**:

Deputy Director (Technical)
The Institution of Engineers (India)
8 Gokhale Road, Kolkata 700020



The envelope containing the application should be superscribed at the top as '**IEI Young Engineers Award 2026**' and name of the engineering division under which the applicant desires to be considered for the Award.

News-in-Brief

The following are brief accounts of Technical Activities organised by various Centres and Fora

STATE CENTRES

Andhra Pradesh

Observed the birth anniversary of the legendary civil engineer and statesman Padma Bhushan Dr K L Rao on 15 July 2025, honouring his monumental contributions to irrigation engineering and national development. The programme commenced with a floral tribute to Dr Rao's portrait by dignitaries, office bearers and members of IEI, followed by a documentary showcasing his life and achievements. Sri R Mohan Rao, Superintending Engineer, Irrigation Department, Vijayawada, highlighted Dr Rao's pioneering role in landmark projects such as Nagarjuna Sagar and underscored the continued relevance of his vision in addressing modern water resource challenges. Sri A V Gopala Krishna Rao, Rashtriya Adhyakshudu, Sagunithi Vinayogadarula Sanghala Samakhya, reflected on Dr Rao's reforms that empowered water users at the grassroots level and urged young engineers to uphold his ideals of integrity and service. Dr C V Sriram, Immediate Past Chairman of the centre, lauded Dr Rao's dual legacy as an eminent engineer and Union Minister.

Organized a Guest Lecture on the theme 'Career Opportunities in Mechanical Engineering' on 29 August 2025 at St Ann's College of Engineering & Technology, Chirala. The session was graced by Dr M L S Deva Kumar, Secretary & CEO, BCDE, Government of Andhra Pradesh, who delivered an insightful lecture highlighting the diverse career avenues available for mechanical engineers in emerging industrial sectors. He emphasized the importance of aligning academic learning with evolving industry requirements and encouraged students to develop essential skillsets through continuous learning, internships and professional certifications. The programme provided a valuable platform for participants to gain awareness about various opportunities in core and interdisciplinary domains of mechanical engineering while fostering meaningful networking with industry professionals. The session proved to be highly motivational for aspiring engineers, inspiring them to enhance their technical competencies and readiness for future challenges in the mechanical engineering landscape.

Karnataka

In association with Bravee Multiskilling Academy, organized 'UPSKILL 2025 Bengaluru' – Skill Development Exhibition & Conference on 17 September 2025 at Bangalore, focusing on advancing vocational training and bridging skill gaps. Er V B Singh, the then President, IEI, inaugurated the conference by lighting the lamp along with senior dignitaries. The event witnessed active participation from experts including Dr CKB Nair, Director, Bravee Multiskilling, Er Jasmail Singh, Former Chairman of the centre, Dr V Jayaram, & Dr S Seetharam, Former Director, CPRI, Mr Arvind Parekh, Managing Director, Manpho Foundation and representatives from AASSC, Skybird Aviation Academy and various vocational training institutions. Technical sessions covered skill development policies, flight safety, drone-based opportunities, logistics excellence, innate skill development and the impact of AI, automation and robotics on future talent. A key resolution emphasized integrating vocational training within general education to raise aspirations and improve employability. Exhibitions showcased sector-specific skill opportunities, attracting students, parents and dropouts. A panel discussion evaluated NEP 2020's vocational integration proposal and three entrepreneurs were felicitated for success through vocational skills.

Kerala

Organized a Book Releasing Ceremony on 30 June 2025 at Visvesvaraya Bhavan, Thiruvananthapuram, to unveil the book titled 'Haldia to Lisbon – Saga of an Indian Sailor' authored by Er S K Namboothiri, Former Mariner. Er P Balakrishnan Nair, Chairman, Kerala State Centre, IEI [Session 2023-

25] highlighted the significance of documenting maritime experiences that inspire future engineers and sailors alike. Er N M C Nair, Marine Chief Engineer & Marine Surveyor was the Guest of Honour. Prof (Dr) Mohanan Kunnummal, Vice Chancellor, Kerala University of Health Sciences & University of Kerala, Prof Ciza Thomas, Vice Chancellor, Digital University Kerala and Capt Aswani Prathap, Deputy Director of Ports, Kerala Maritime Board also graced the occasion. Following the release, the author and dignitaries shared insightful remarks on maritime heritage and professional excellence.

In association with IEEE, INSARM, ASI, SSI, ISTD, SAME, IITArb, PMI and IETE, organized a Technical Talk on 'Galileo: Life and Message' on 06 August 2025 at Thiruvananthapuram. The session was graced by Dr A K Ashraf, Former Associate Director (R&D), VSSC, who delivered an enlightening lecture on the life, scientific contributions, and enduring legacy of Galileo Galilei - the father of modern science. Dr Ashraf emphasized Galileo's revolutionary ideas in physics and astronomy, his courage in challenging conventional beliefs and the timeless relevance of his message that truth must prevail through reason and evidence.

In association with IEEE, INSARM, ASI, SSI, ISTD, SAME, IITArb, PMI and IETE, organized a Technical Talk on 'Hydrogen Fuel Cell Electric Vehicles' on 24 September 2025 at Visvesvaraya Bhavan, Thiruvananthapuram. The session featured an insightful lecture by Dr K Surendran, Professor (Retd), Department of Electrical Engineering, College of Engineering, Trivandrum, who elaborated on the emerging technologies and future potential of hydrogen as a clean energy source for sustainable mobility. He explained the working principles of hydrogen fuel cells, their advantages over conventional internal combustion engines and the challenges in infrastructure, cost and storage that need to be addressed for large-scale adoption. Er P Balakrishnan Nair, Chairman, Kerala State Centre, IEI [Session 2023-25] highlighted the importance of green energy initiatives in achieving carbon neutrality.

Telangana

Organized the 12th Telangana Engineer's Day on 11 July 2025 to commemorate the birth anniversary of Nawab Ali Jung Bahadur, marked by a dignified ceremony and enthusiastic participation of Council Members, who collectively highlighted the contributions of Nawab Ali Jung Bahadur to engineering and public welfare. The programme reflected the Centre's commitment to celebrating engineering excellence while inspiring the fraternity to uphold professional values and contribute to nation-building.

Organized the 124th Birthday Celebration of Padmabhushan Dr K L Rao, Honorary Life Fellow on 15 July 2025 at Hyderabad, with dignified participation from senior members. who collectively highlighted Dr Rao's legacy as an eminent engineer, visionary leader and inspiration to generations of professionals. The celebration reflected the Centre's commitment to honouring distinguished engineering personalities and motivating the engineering community to uphold excellence, innovation and societal service.

Organized the Er Gurram Koti Reddy 7th Endowment Lecture on 23 September 2025 at Hyderabad, marked by the presence of distinguished dignitaries and engineering professionals. Sri M Kodanda Reddy, Ex-MLA and Chairman, Telangana State Agriculture & Farmers Welfare Commission, graced the event as Chief Guest and addressed the gathering. Dr K V Ramana Rao, Dean, Agricultural Engineering & Technology, PJTSAU, Hyderabad, delivered the Keynote lecture on 'Engineering Applications in Enhancing Water Use Efficiency and Crop Water Productivity'. Er R Venkatrama Narsaiah, SE (Retd), I & CAD Dept and C Ajad Kumar, Managing Director, SVEC Construction Limited, also graced the occasion.

Organized the Er Atluri Venkateswara Rao 18th Endowment Lecture on 28 September 2025 through online platform, featuring an insightful Keynote address by Dr Mamidala Vijay Karthik, Associate Professor cum Training & Placements Officer, CMR Engineering College, who delivered the lecture on the topic 'Design of Cost Effective Control Strategies for High Quality Power to AC Micro Grids'. The programme witnessed active participation from distinguished Council Members, all Committee Members of the centre; family members of Er Atluri Venkateswara Rao and several other Corporate Members, making the event a meaningful technical engagement.

LOCAL CENTRES

Bareilly

Organized World Students' Day 2025 on 'Innovision 2025: Creativity and Innovation for a Sustainable World' on 14 October 2025 through digital mode. The Keynote address was delivered by Dr Raveesh Agarwal, Professor, Rajshree Institute of Management & Technology, Bareilly, who emphasized that 'Innovision 2025' embodies a forward-looking vision merging creativity and innovation to tackle sustainability challenges. He highlighted that true progress relies on integrating technological advancement with creative thinking to achieve harmony between growth and environmental stewardship. Dr Agarwal underscored the need for collaboration among academia, industry and society to foster a culture of innovation and responsibility toward the planet.

Jabalpur

Organized an online event titled 'Abhiyanta Kavya Goshthi' (Engineers' Poetry Symposium) on the occasion of Hindi Diwas on 14 September 2025. Eminent engineer-poets including Er Sanjiv Verma 'Salil', Er Amrendra Narayan, Er Arvind Mohan Nayak, Er Priya Darshan Khaira (Bhopal), Dr Durgesh Beohar, Er Vivek Ranjan Shrivastava (Bhopal), Er Kapil Choubey (Sagar), Er Anil Kori, Er Sanjeev Agnihotri (Mandla), Prof Yashad Gour (Bangalore), Er Hemant Jain, Er Saras Jain and Dr Uday Bhanu Tiwari 'Madhukar' presented engaging poems, satirical pieces and lyrical compositions reflecting contemporary themes and the spirit of engineering creativity. The session beautifully blended literature with technical fraternity, promoting Hindi language and cultural expression among engineers.

Kakinada

Organized a Seminar on the occasion of the 124th Birth Anniversary of Padma Bhushan Dr K L Rao on 15 July 2025 at JNTU Kakinada. In association with JNTU Kakinada and the Retired Irrigation Engineers Association, Kakinada. Prof C S R K Prasad, Hon'ble Vice Chancellor, JNTU Kakinada graced the occasion as the Chief Guest. Prof Prasad. In his address, paid rich tributes to Dr K L Rao, recalling his exceptional contributions to irrigation, water resource management and civil engineering education and his illustrious career marked by numerous national and international honours. The seminar served as an inspiring platform to reflect on Dr Rao's vision, leadership and lifelong dedication to engineering excellence.

Kharagpur

Organised a webinar on 'Sustainable Materials and Processing Technologies for Affordable Health' on 27 July 2025, featuring Prof Santanu Dhara, Professor, School of Medical Science and Technology, IIT Kharagpur, as the panellist and Keynote speaker. Dr Dipak Kumar Maiti, Chairman, Kharagpur Local Centre, IEI [Session 2023-25] introduced the Speaker and appreciated the efforts of all members in making the event successful, expressing hope that the seminar would illuminate various aspects of sustainable materials and processing techniques in mechanical engineering. Prof Dhara delivered an insightful lecture highlighting how eco-friendly and cost-effective materials, along with innovative processing technologies, can transform healthcare by enhancing affordability and accessibility. He emphasized green manufacturing, resource efficiency and circular design principles that reduce environmental impact while ensuring high performance in medical applications such as implants, diagnostics and drug-delivery systems.

Organized a webinar on 'The Longest Known Insect Migration: Secrets that Natural Flyers Hold for an Aerospace Engineer' on 14 August 2025, featuring Dr Sandeep Saha, Associate Professor, Department of Aerospace Engineering, IIT Kharagpur, as the distinguished panellist. Dr Dipak Kumar Maiti, Chairman, Kharagpur Local Centre, IEI [Session 2023-25] introduced the speaker and acknowledged the efforts of all members in successfully organizing the programme, expressing hope that the session would illuminate the aerodynamics and bioinspired insights drawn from natural flyers. Dr Saha delivered a captivating lecture on the extraordinary migration of the dragonfly *Pantala flavescens*, which undertakes a multi-generational transoceanic journey of 14,000–18,000 km between India and Africa.

IEI Celebrates 58th Engineers' Day 2025

Contd. from page 29

as the Chief Guest, while Er Rajgopal Gilada, Managing Director, GITA Group of Companies, Bengaluru, was the Guest of Honour. The Keynote address was presented by Dr Jayashree Agarkhed Patil, Professor, CSE Department, PDA College of Engineering, who spoke on the theme of the day.

Kanyakumari

Kanyakumari Local Centre, IEI, celebrated the 58th Engineers' Day at Nagercoil on 15 September 2025. The theme Lecture was delivered by Dr S Arumuga Perumal, Distinguished Professor of Computer Science, Crown University (Intl Chartered Inc, USA) and Director, RIYASAA Labs, who spoke on emerging technologies and their societal impact. Prizes were distributed to winners of various competitions, followed by presentation of Engineers' Awards to distinguished professionals for their contributions. Senior members and guests felicitated the awardees, inspiring young engineers.



Kochi

Kochi Local Centre, IEI, celebrated the 58th Engineers' Day on 15 September 2025 at Kochi. The Chief Guest, Dr V Narayanan, Chairman, ISRO and Secretary, Department of Space, Government of India, inaugurated the newly built Conference Room and lauded the Chairman and team for creating a modern facility to strengthen professional activities. Prof (Dr) G Madhu, Council Member, IEI spoke on the visionary contributions of Sir Visvesvaraya. Dr Narayanan delivered the Keynote address on 'Space Technologies in India – From Its Beginning to Today,' tracing ISRO's inspiring journey and emphasizing engineers' crucial role in national advancement. The Guest of Honour, Prof (Dr) K Sivaprasad, Vice Chancellor, APJ Abdul Kalam Technological University, stressed research-oriented and globally competitive engineering education. An interactive session with students followed.



IEI DIARY



Aerospace Engineering Division

One Day Seminar on **"Advances in Aeronautical Propulsion and Sustainable Thermal Management"**
Bangalore, February 19 2026,
The Honorary Secretary, IEI, Karnataka State Centre, No.3, Dr B R Ambedkar Veedhi, Bengaluru, 560001 [☎: 080-22256191/080-22264698/8105625725 Telefax : 080-22256191, E-mail:karnatakasc@ieindia.org; ieiksc.ksc@gmail.com, Website: www.ieiksc.org.in]

International Conference on **"Sustainable Aerospace Technologies"**
Bhopal, February 26-27, 2026
The Honorary Secretary, IEI, Madhya Pradesh State Centre, Dr M Visvesvaraya Marg, PO: Habibganj, Bhopal 462024 (M. P.), [☎: 0755-2474572, E-mail:mpsc@ieindia.org, Website: www.mpscibhopal.in]

Electrical Engineering Division

All India Seminar on **"Distributed Generation Power Quality Navigating Grid Integration Challenges"**
Coimbatore, February 12-13, 2026
The Honorary Secretary, IEI, Coimbatore Local Centre, PSG Tech Campus, Peelamedu, Coimbatore, Tamilnadu 641004 [☎: 0422-2580733, E-mail: coimbatorelc@ieindia.org; ieicoimbatore@gmail.com, Website: www.ieicoimbatore.org]

One Day Workshop on **"AI and Machine Learning Applications in Electrical Power Systems"**
Bhopal, February, 14, 2026
The Honorary Secretary, IEI, Madhya Pradesh Centre, Dr M Visvesvaraya Marg, PO: Habibganj, Bhopal, 462024 (M.P.) [☎: 0755-2474572, E-mail:mpsc@ieindia.org, Website: www.mpscibhopal.in]

One Day Seminar on **"Distributed Generation and Power Quality DG PG 2026"**
Palghat, February 25, 2026
The Honorary Secretary, IEI, Palghat Local Centre, XIV/3, Nerukakkad, PO: Kallepully, Palakkad 678005, [☎: 0491-2972137, E-mail: palghatlc@ieindia.org, Website: www.ieipkd.org]

One Day Workshop on **"Sustainable Energy Transition 4.0"**
Thiruchirappalli, April 10, 2026
The Honorary Secretary, IEI, Tiruchirappalli Local Centre, BHEL Main Office Road, Opposite to 79 Building, Kailasapuram Post, Tiruchirappalli 620014, Tamil Nadu [E-mail: tiruchirappallilc@ieindia.org]

Electronics & Telecomm. Engineering Division

All India Seminar on **"6G and Beyond: Shaping the Future of Wireless Communication"**
Bathinda, February 12-13, 2026
The Honorary Secretary, IEI, Bathinda Local Centre, Kartar Colony, Behind Deaf & Dumb School, Goniana Road, Bhatinda 151003 [Email: bathindalc@ieindia.org]

One Day Workshop on **"Robosp[ark Igniting Young Minds in Robotics Innovation]"**
Bhopal, February, 24, 2026
The Honorary Secretary, IEI, Madhya Pradesh Centre, Dr M Visvesvaraya Marg, PO: Habibganj, Bhopal, 462024 (M.P.) [☎: 0755-2474572, E-mail:mpsc@ieindia.org, Website: www.mpscibhopal.in]

One Day Seminar on **"Internet of Things as a Catalyst for Sustainable Economic Growth"**
Chandigarh, February 28, 2026
The Honorary Secretary, IEI, Punjab & Chandigarh State Centre, Plot No.1-A, Engineers Bhawan, Madhya Marg, Sector 19-A, Chandigarh 160019 [☎: 0172-2775418, E-mail: pcsc@ieindia.org; ieichd@yahoo.com, Website: www.ieichd.org]

One Day Seminar on **"Electronics and Telecommunication in Medical Application"**
Gwalior, February 28, 2026
The Honorary Secretary, IEI, Gwalior Local Centre, Green Park, Engineer Road, Behind New, Collectorate, City Centre, Gwalior 474011 [☎: 0751-2454168, E-mail: gwaliorlc@ieindia.org]

Environmental Engineering Division

All India Seminar on **"Energy Efficiency in Heating Ventilations and Air Conditioning"**
Ranchi, February 8-9, 2026
The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, PO: Doranda, Ranchi 834002 [☎: 0651-3510412, E-mail: jharkhandsc@ieindia.org; Website: ieijscjharkhand.org]

Civil Engineering Division

One Day Seminar on **"Structural Design For Resilient and Sustainable Buildings"**
Erode, February 16, 2026
The Honorary Secretary, IEI, Erode Local Centre, Sri Ramakrishna Seva Samithi Religious Library, Thindal Murugan Temple Premises, Thindal, Erode 638012, Tamilnadu, [E-mail: ieierode2015@gmail.com; erodelc@ieindia.org, Web: www.ieierode.org]

Marine Engineering Division

One Day Seminar on **"Green Shipping : Challenges and Opportunities"**
Kochi, February 28 2026
The Honorary Secretary, IEI, Kochi Local Centre, IEI Bhavan, Government Homeo Hospital Road, Pullepady, PO: Kaloore, Kochi 682017 [☎: 0484-2403838 / 2403993, E-mail: kochilc@ieindia.org; Website: www.ieikochi.org]

Mechanical Engineering Division

All India Workshop on **"Innovations in Sustainable Heat Transfer and Solar Thermal Energy Systems"**
Bhimavaram, February 24, 2026
The Honorary Secretary, IEI, Bhimavaram Local Centre, First Floor, General Amenities Building, SRKR Engineering College, PO: Chinnaamiram, Dist - West Godavari, Bhimavaram 534204, [☎: 08816-233522, E-mail: bhimavaramlc @ieindia.org]

One Day Seminar on **"Recent Trends in Use of Computational Fluid Dynamics for Turbo Machinery Applications"**
Madurai, February 27, 2026
The Honorary Secretary, IEI, Madurai Local Centre, Er T M Jambulingam Bhavan, No.1, Vivekananda Nagar, 120 Feet Road, Surveyor Colony, K Pudur, Madurai 625007 [☎: 0452-4373067, E-mail : madurailc@ieindia.org, Website :www.ieimadurailc.org]

One Day Seminar on **"The Role of Additive Manufacturing in Next Generation Product Development"**

Palghat February 28, 2026
The Honorary Secretary, IEI, Palghat Local Centre, XIV/3, Nerukakkad, PO: Kallepully, Palakkad 678005, [☎: 0491-2972137, E-mail: palghatlc@ieindia.org, Website: www.ieipkd.org]

One Day Seminar on **"Eco Innovations for a Sustainable Future"**
Jamshedpur, February 28, 2026
The Honorary Secretary, IEI, Jamshedpur Local Centre, Subarnarekha Link Road, Sakchi, In between (Red Cross Society and TCE Building),Jamshedpur 831001 [☎: 0657-2980316,E-mail:jamshedpurlc @ieindia.org]

One Day Workshop on **"Welding 4.0 - Latest and Future Developments in Welding Technologies"**
Kochi, February 27, 2026
The Honorary Secretary, IEI, Kochi Local Centre, IEI Bhavan, Government Homeo Hospital Road, Pullepady, PO: Kaloore, Kochi 682017 [☎: 0484-2403838 / 2403993, E-mail: kochilc@ieindia.org; Website: www.ieikochi.org]

All India Seminar on **"Eco Friendly Materials"**
Kanchepuram, April 09-10, 2026
The Honorary Secretary, IEI, Kanchepuram Local Centre, IEI, Jerusalem College of Engineering Campus, Velachery Main Road, Narayanapuram, Pallikaranai, Chennai 600100 [Mobile: 9789924739, Whatsapp No. 8870531609, E-mail: kanchepuramlc@ieindia.org, Website: www.ieindia.org]

Forty-first National Convention of Mechanical Engineers on **"Emerging Domains in Robotics and AI"**
Thiruvananthapuram, September 23-24, 2026
The Honorary Secretary, IEI, Kerala State Centre, Visvesvaraya Bhavan, Opposite Kanakakunnu Palace, Thiruvananthapuram 605033 [☎: 0471-2322991, 8078027563; E-mail: keralasc@ieindia.org; Website: www.ieitvm.org]

Forty-second National Convention of Mechanical Engineers, on **"AI & ML: Bridging Innovations and Shaping Tomorrow's Industries"**
Navi Mumbai, September 17-18 2027
The Honorary Secretary, IEI, Navi Mumbai Local Centre, Plot No. 106, Sector 15, C.B.D Belapur, Navi Mumbai 400614, [☎: 022-49706724, E-mail: navimumbailc@ieindia.org]

Production Engineering Division

One Day Seminar on **"Next Gen AI for Zero Defect: Net Zero Manufacturing"**
Salem, February 06 2026
The Honorary Secretary, IEI, Kochi Local Centre, 104/7, Manivannan Road, 3rd Floor, SPC Bhawan, Opp to Salem New Bus Stand, Salem 636004 [☎: 0427-2332544, E-mail : salemic@ieindia.org, Website: www.ieisl.com]

Fortieth National Convention of Production Engineers on **"Sustainable Smart Manufacturing for Circular Economy"**
Coimbatore, June 19-20, 2026
The Honorary Secretary, IEI, Coimbatore Local Centre, PSG Tech Campus, Peelamedu, Coimbatore, Tamilnadu 641004 [☎: 0422-2580733, E-mail: coimbatorelc@ieindia.org; ieicoimbatore@gmail.com, Website: www.ieicoimbatore.org]



Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)
(IMS [ISO 9001:2015, ISO 14001:2015, ISO 50001:2018, ISO 45001:2018],
ISO/IEC 17025:2017 Certified, AICTE & CEA Recognized Institution)

Continuing Professional Development Programmes (CPDPs) for the Month of February 2026

Sl. No.	Name of the Course	Scheduled Dates
1.	Circular Economy: A Focus on Waste and Waste Water	02 - 04 Feb 26
2.	Mine Geology & Advanced Exploration Techniques & Rock Blasting	02 - 04 Feb 26
3.	Advances in Plasma welding and cutting	02 – 05 Feb 26
4.	Generative AI & Deep Learning Applications	02 - 06 Feb 26
5.	Lean Six Sigma Green Belt	02 - 06 Feb 26
6.	Best Practices in O&M of Hydro Power Plants	03 - 06 Feb 26
7.	Training on Business Communication & Presentation Skills	04 - 06 Feb 26
8.	Mapping and Modelling coastal Protection zones for sediment transport	04 - 06 Feb 26
9.	TPM (Total Productive Maintenance) - The foundation for Manufacturing Excellence	09 - 11 Feb 26
10.	Quality of Life and Work balance	09 - 11 Feb 26
11.	Big Data Analysis Using MS Excel & Power BI	09 - 12 Feb 26
12.	Cyber Security Issues in Power Sector	10 - 12 Feb 26
13.	ArcGIS desktop Hands-on GIS training with live project	11-13 Feb 26
14.	Technical manuscript writing & Publishing in Reputed Journals	11-13 Feb 26
15.	Management Programme: Communication & Presentation Skills, Team Building, Leadership, Skill Development for Executives	11-13 Feb 26
16.	Intellectual Property Rights (IPR) - Patent	11 - 13 Feb 26
17.	Internal Auditor training for AS 9100 Rev D	16 - 18 Feb 26
18.	Water Pollution and Contamination Modelling – Climate Change Impact Analysis	16-18 Feb 26
19.	Organizational Culture Assessment, Change Management & Strategic Leadership (Developing a Positive Culture where People and Performance Thrive)	16 - 19 Feb 26
20.	Construction of Bridge in Hill Area and Challenges	16 - 20 Feb 26
21.	Advances in Design & Optimization of UAV's for Industrial Applications (Defense, Mining & Construction)	16 – 20 Feb 26
22.	Government Policies and Incentives for Plastic-Free Practices	18 - 20 Feb 26
23.	Tariff Policy - Basics of Tariff Calculation & Procedure / Information Required for Preparation of Tariff Petition (ARR) & Energy Scheduling	18 - 20 Feb 26
24.	Quality, Metrology & Standards	23 - 25 Feb 26
25.	Boiler Tube Failure Analysis & Preventive Measures	24- 26 Feb 26
26.	Workshop on NAAC Accreditation	25 - 27 Feb 26
27.	Preparation of Safety Management Plan	25 - 27 Feb 26
28.	Cloud-Based Water Resources Data collation, Analysis and Decision Making	25 - 27 Feb. 26

For detailed information please contact:

Engineering Staff College of India

Old Bombay Road, Gachibowli, Hyderabad – 500 032

Landline : 040-66304100 & Mobile: +91 7337319038 E-mail : mis@escihyd.org / URL : <https://escihyd.org>

Superannuation from IEI

Mr Buddhadev Ghosh, an employee of the Institution HQ was superannuated from the services of IEI on 31 January 2026. He joined the Institution on 01 September 1990 and rendered his services to the Institution over a period of 35 years.

IEI wishes **Mr Buddhadev Ghosh** and his family a happy and healthy life in the future.



ANNOUNCEMENT

Fifth Regional Conclave & National Conference of Students' Chapters during FY: 2025-26

The following themes have been finalised by All Indian Students' Committee (AISC) of the Students' Chapters of IEI:-

- “Responsible AI for Social Good” for North Zone
- “Tech for Rural Development and Agri Tech” for East Zone
- “Startup, Innovation and Industry Synergy” for West Zone
- “Engineering Solutions for Global Challenges” for South Zone

The Engineering Institutes having Students' Chapters of IEI are requested to send their proposals at the earliest to organise within 31 March 2026.

The Guideline is available in :

<https://www.ieindia.org/webui/IEI-Network.aspx#students-chapters>

The format of proposal is available in :

<https://www.ieindia.org/webui/IEI-Network.aspx#centres-OverseasChapters>



The Institution of Engineers (India)

Notification for

R&D Grant-in-Aid

To promote appropriate technology, assist in building up design & research talents and, most importantly, to help in nurturing potential R&D venture amongst engineering students pursuing Diploma/UG/PG/PhD courses, The Institution of Engineers (India) had instituted the R&D Grant-in-Aid program way back in 2001.

Like every year, the Institution invites applications for the session 2025-26 for funding industry-oriented R&D projects and research initiatives aimed at improving the life-style of common people from engineering students pursuing full time Diploma/UG/PG/PhD engineering program in AICTE/UGC/NAAC approved Institutions/Colleges/Universities. The application form and guidelines are available in our website <https://www.ieindia.org>. The projects should be carried out under the guidance of faculty members who are Corporate Members of IEI. Membership criteria for student investigator(s), guide(s) and Institution(s) are as follows:

Project Category	Student/Applicant Membership	Guide(s) Membership	Institutional Membership	Quantum of Grant (INR)
1. Diploma	Exempted [Membership of Student Chapter is desirable]	AMIE/MIE/FIE	Not Mandatory	Not exceeding ₹15,000/- for a single project
2. UG (BE/BTech/AMIE/Equivalent)	SMIE	AMIE/MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation	Not exceeding ₹50,000/- for a single project
3. PG (ME/MTech/Equivalent)	AMIE/MIE/FIE	MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation	Not exceeding ₹1,00,000/- for a single project
4. PhD	AMIE/MIE/FIE	MIE/FIE	Applicant's Institute should preferably be an Institutional Member with NBA / NAAC Accreditation	Not exceeding ₹1,50,000/- for a single project

The soft copy of the duly filled-up applications (in editable format), as per the pro-forma available in our website www.ieindia.org, should be sent through email to research@ieindia.org and one printed copy of the same should reach the following address:

Deputy Director (Technical)

The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700 020

Applications received in format other than that available on our website will not be accepted. Application should be forwarded through the Guide, Head of the Department or Head of the Institution. Please note that preference will be given to project proposals received from Institutions who are Members of The Institution of Engineers (India) and with NBA / NAAC Accreditation. Kindly go through the guidelines ([visit link https://shorturl.at/BiAOQ](https://shorturl.at/BiAOQ)) carefully before filling up the application.

The grant is not intended for the faculty members / working individuals who have access to other avenues of research funding. Proposals received will be scrutinized and the recipients of R&D Grant will be informed accordingly.

I.E.I NEWS

ISSN 0971-3352

Owner : The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700 020
 Printer : Maj Gen (Dr) MJS Syali, VSM (Retd), Secretary & Director General
 Publisher : Maj Gen (Dr) MJS Syali, VSM (Retd), Secretary & Director General
 Published from : 8 Gokhale Road, Kolkata 700 020
 Printed from : M/s Florence Offset Process Pvt. Ltd.
 6A S N Banerjee Road, Kolkata 700013
 Editor : Maj Gen (Dr) MJS Syali, VSM (Retd), Secretary & Director General

President : Er Manish Mahendra Kothari

Editor : Maj Gen (Dr) MJS Syali, VSM (Retd)

Special Contributors: Mr S Chakraverty, Dr K Sen
 Mr D Nath, Ms H Roy, Mr S Bagchi, Mr Joydeep
 Bhattacharya, Ms Tania Kumar

The Institution of Engineers (India) as a body accepts no responsibility for the statements made by individuals. Reprints of any portion of the publication may be made provided reference thereto is quoted.

Telephones: 91-33-40106299/248/228/215; Web: <http://www.ieindia.org>; E-mail: iei.technical@gmail.com