Name of the Centre	The Institution of Engineers (India), Coimbatore Local Centre
Nature of the Event	Technical Webinar
Under the aegis of which Divisional Board:	Aerospace Engineering Division Board
Title	"Engineering Failure Analysis - Materials Aspects"
Date & Time	29th August 2024 (Thursday), 10.30 AM
Speaker	Dr P Parameswaran Former Head Physical Metallurgy Section, Materials and Metallurgy Group Indira Gandhi Centre for Atomic Research, Kalpakkam.
Associate organization/s (if any):	Department of Aeronautical Engineering Hindusthan College of Engineering and Technology, Coimbatore
No. of Participants	100
Event Content	The webinar focused to promote awareness on materials' perspectives from selection, processing and service point of view, thus generating exchange and network among engineers of all disciplines in particular those who employ materials in successful designing them through suitable processing. Accordingly the importance of engineering failure analysis with a focus to materials aspects were covered with suitable case studies.

Event Summary

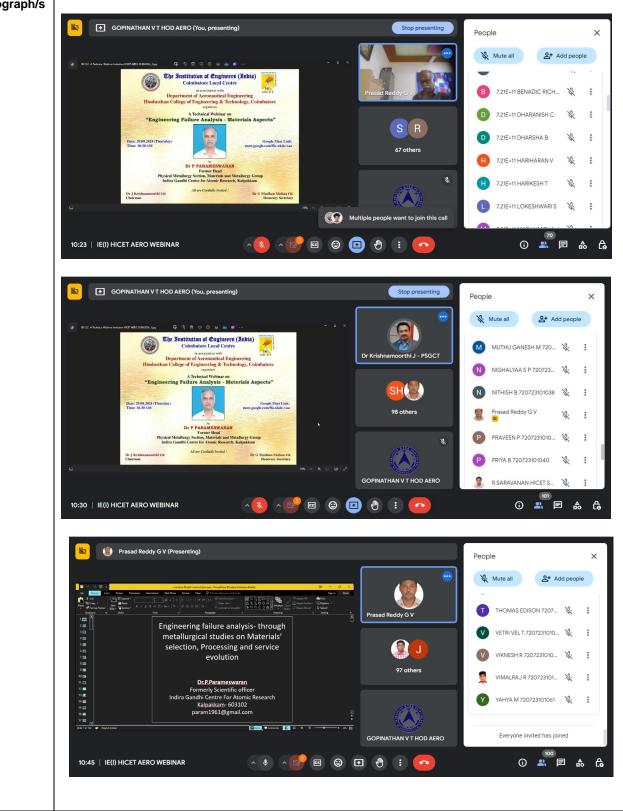
The Institution of Engineers (India), Coimbatore Local Centre organised a technical webinar in association with the Department of Aeronautical Engineering, Hindusthan College of Engineering and Technology (HiCET), Coimbatore on 29th August 2024 (Thursday). In the webinar, the guest speaker Dr P Parameswaran, Former Head, Physical Metallurgy Section, Materials and Metallurgy Group, Indira Gandhi Centre for Atomic Research, Kalpakkam delivered a technical lecture on "Engineering Failure Analysis - Materials Aspects".

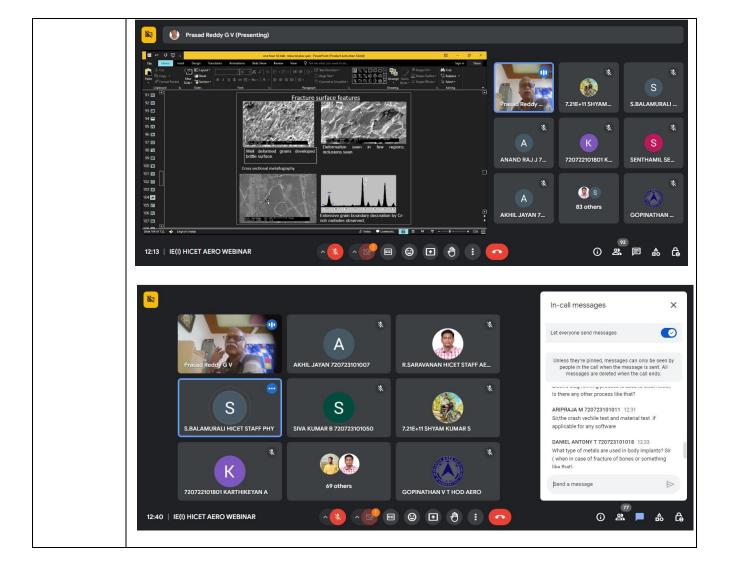
Dr J Krishnamoorthi, Chairman, IE(I), Coimbatore Local Centre welcomed the guest speaker, participants and delivered the presidential address. **Dr V T Gopinathan**, Professor & Head, Department of Aeronautical Engineering, HiCET delivered the felicitation address.**Dr K P Uma**, Professor & Head, Department of Science and Humanities, HiCET introduced the guest speaker.

The guest speaker delivered the lecture on Engineering failure analysis, which is the process of investigating why a component or structure failed to perform as intended. He explained more about the parameters involved to select the materials that helps to prevent future failures by understanding the underlying causes and improving Engineering designs and processes. He shared the information about Metallurgy properties such as phase transformations, Alloy composition and Heat treatment. Moreover, he explained the importance of electron microscopic methods like Scanning electron microscopy, Transmission Electron Microscopy and Electron Dispersive analysis towards failure analyses study. In addition, he covered the significances of SEM images with required data effectively. The whole session was highly informative with suitable case studies and examples. The queries were asked by the students and answered with clarity by the guest speaker in a distinguished manner. The participants were actively participated the quiz conducted by the

speaker and have given excellent feedback about the technical lecture. Nearly more than 100 participants attended the session. The programme concluded with vote of thanks given by **Dr G Madhan Mohan**, Honorary Secretary, IE(I), Coimbatore Local Centre.

Photograph/s





Name of the Centre	The Institution of Engineers (India) Coimbatore Local Centre
Nature of the Event	World Standards Day 2024
Under the aegis of which Divisional Board:	
Title	"Shared Vision for a Better World: Application of Standards"
Date & Time	16 th October 2024 (Wednesday), 11.00 AM
Speaker	Shri V GOPINATH Scientist G and Head Bureau of Indian Standards Coimbatore Branch
Associate organization/s (if any):	Department of Civil Engineering Hindusthan College of Engineering and Technology, Coimbatore
No. of Participants	168
Event Summary :	

Event Summary:

The Institution of Engineers (India), Coimbatore Local Centre celebrated a "World Standards Day 2024" with the theme "Shared Vision for a Better World: Application of Standards" in association with the Department of Civil Engineering, Hindusthan College of Engineering and Technology, Coimbatore on 16th October 2024. The lecture was delivered by Shri V. Gopinath, Scientist G and Head, Bureau of Indian Standards, Coimbatore Branch.

Dr P R Natarajan, Past Chairman, IEI Coimbatore Local Centre gave the welcome and presidential address. **Dr K Akil**, Professor & Head, Department of Civil Engineering, Hindusthan College of Engineering and Technology and Committee Member, IEI Coimbatore Local Centre, introduced the guest speaker.

Shri V. Gopinath, Scientist G and Head, Bureau of Indian Standards, Coimbatore Branch delivered an insightful talk on the theme "Shared Vision for a Better World: Application of Standards". The lecture explored the critical role that standards play in advancing sustainable industrialization, fostering innovation, and building resilient infrastructure globally. By establishing uniform guidelines and frameworks, standards promote efficiency, safety, and interoperability in industries. The speaker emphasized how standards help bridge technological gaps between countries, encouraging inclusive growth and global cooperation. The lecture concluded by stressing the need for governments, industries, and civil society to work together in applying standards to drive innovation while ensuring that industrial growth benefits both the economy and the environment, creating a shared path toward a better future.

Finally, the vote of thanks was proposed by **Mr A Alex Livingston Raja**, Assistant Professor, Department of Civil Engineering, Hindusthan College of Engineering and Technology, Coimbatore.

Photographs



















REPORT OF ALL INDIA SEMINAR ORGANISED BY COIMBATORE LOCAL CENTRE

Name of Centre / Overseas Chapter: Coimbatore Local Centre

Title of Activity:

2024

All India Seminar on "Green Technology for Sustainable Food Production and Processing"

Activity under Divisional Board

Agricultural Engineering Divisional Board, IEI

Date:

24th & 25th October

Venue:

Hindusthan College of Engineering and Technology,

Coimbatore - 641032





Photo of inaugural session with banner of IEI

Photo of souvenir release





Photo of inaugural session

Technical session





Technical session

Technical session





Technical session



Technical session



Technical session



Technical session



Paper Presentation by students



Paper Presentation by students



Paper Presentation by students

Prize distribution to students

Report of All India Seminar

Brief Details about the Programme:

The Institution of Engineers (India), Coimbatore Local Centre organized an All India Seminar on "Green Technology for Sustainable Food Production and Processing" in association with the Department of Food Technology, Hindusthan College of Engineering and Technology, Coimbatore during 24-25, October 2024.

<u>Day 1 : 24.10.2024 - Forenoon Session:</u>

Inaugural Session

In inaugural function, **Dr P R Natarajan**, Former Chairman, IEI Coimbatore Local Centre presented the welcome address and briefed upon the activities of IEI. **Dr G Jeevarathinam**, Associate Professor and Head, Dept of Food Technology, Hindusthan College of Engineering and Technology gave an overview of All India Seminar. **Dr R Visvanathan**, Former Professor and Head, Department of Food Process Engineering, Agricultural Engineering College and Research Institute, Tamil Nadu Agricultural University Coimbatore delivered the chief guest address elaborating the importance of Green Technology for sustainable food production and processing in Food sector. **Dr K Akil**, Committee Member, IEI Coimbatore Local Centre, proposed the vote of thanks.

<u>Invited Lecture - 1</u>

In first invited lecture on "Strategies for Production and Utilization of Millets" was delivered by Dr R Visvanathan, Former Professor and Head, Department of Food Process Engineering, Agricultural Engineering College and Research Institute, Tamil Nadu Agricultural University Coimbatore. The speaker detailed about the statistical production of millets and various aspects of millet cultivation, the benefits of these grains, and approaches for enhancing their production and utilization. He emphasized about the environmental benefits of millets such as resilience to climate change, low water requirements, and soil health benefits. He explained about the techniques to enhance the nutritional profile of millet products through fortification with vitamins and minerals. He also addressed the micronutrient deficiencies and creating value-added products for health-conscious consumers.

Invited Lecture - 2

The second invited lecture was handled by **Dr V Thirupathi**, Professor, Department of Food Process Engineering Agricultural Engineering College and Research Institute, Tamil Nadu Agricultural University, Coimbatore. He shared his expertise on "**Non Thermal Technologies for Food Processing and Preservation**". He detailed the importance of non-thermal methods in maintaining food quality, extending shelf life, and reducing nutrient loss. He outlined the industrial need for efficient, sustainable, and energy-saving processing methods. He explained the comparison of effectiveness, cost, environmental impact, and suitable food products for each technology. Development of hybrid technologies that combine non-thermal methods for increased effectiveness was also delivered.

Afternoon Session:

Invited Lecture - 3

The third invited lecture was delivered by **Mr R Magesh**, Production Manager, Madhu Jayanti International Private Limited Coimbatore on "**Food Safety and Quality Assurance in Sustainable Food Production**". Brief introduction on The role of food safety and quality in achieving sustainable development goals (SDGs), particularly Zero Hunger (SDG 2) and Good Health and Well-Being (SDG 3) was explained. The key food safety principles such as preventing contamination, reducing hazards, and ensuring safe handling and storage was explained. Importance of food safety across the food supply chain – from farm to table were

presented. Finally Overview of international standards and certifications: ISO 22000, Global Food Safety Initiative (GFSI), and others was explained.

Invited lecture - 4

In fourth invited lecture on "Higher Studies Opportunities and Pathways to Global Education in Food Processing and Technology, Ms N V Gnanaprabha Senior Academic Counsellor Heralds International, Coimbatore briefed about the valuable insights into advanced education opportunities, international programs, and career pathways in the field. She explained the Opportunities in R&D, quality management, production, and regulatory compliance. The insights into trends like plant-based foods, personalized nutrition, clean labelling, and AI in food processing, Potential impact of technology advancements on career opportunities and research directions was explained to the participants.

<u>Day 2: 25.10.2024</u> - <u>Forenoon Session:</u>

<u>Invited Lecture - 5</u>

The fifth invited lecture, **Shri V Gopinath**, Scientist G and Head Bureau of Indian Standards Coimbatore Branch delivered a lecture on "**Standards for Sustainable Food Production**". The speaker explained the overview of global food industry challenges, including resource scarcity, climate change, and ethical sourcing. Role of sustainability standards in shaping practices, consumer confidence, and regulatory compliance within the food industry was explained. He gave a brief introduction to the Standards emphasizing natural farming practices without synthetic inputs, promoting biodiversity and soil health.

Invited Lecture - 6

The sixth invited lecture was handled by **Dr M R Manikantan**, Principal Scientist Physiology, Biochemistry, Harvest & Post Harvest Technology ICAR-Central Plantation Crops Research Institute Kerala. He shared his expertise on "innovative processing techniques, value-added products, and sustainable practices in these versatile crops". He outlined the Overview of key challenges in traditional processing methods: environmental impact, resource inefficiency, and waste generation. The lecture mainly focussed on Global demand trends: Increasing popularity of coconut-based products (e.g., oil, water, milk) and cocoa-derived products (e.g., chocolate, cocoa butter). He explained the sustainable extraction and packaging methods for coconut water and milk, addressing spoilage and shelf-life extension.

Afternoon Session:

The afternoon session was scheduled with paper presentation. 19 paper presentation under different themes were presented by various college students.

The program ended with a valedictory session and the certificates were distributed to the participants.

Details of the Sessions:

Day 1 - 24.10.2024	
Inaugural Session	Dr R Visvanathan Former Professor & Head Department of Food Process Engineering Agricultural Engineering College and Research Institute Tamil Nadu Agricultural University, Coimbatore
Invited Lecture 1	Topic: "Strategies for Production and Utilization of Millets" by Dr R Visvanathan Former Professor & Head Department of Food Process Engineering Agricultural Engineering College and Research Institute Tamil Nadu Agricultural University, Coimbatore
Invited Lecture 2	Topic: "Non Thermal Technologies for Food Processing and Preservation" by Dr V Thirupathi Professor, Department of Food Process Engineering Agricultural Engineering College and Research Institute Tamil Nadu Agricultural University, Coimbatore
Invited Lecture 3	Topic: "Food Safety and Quality Assurance in Sustainable Food Production" by Mr R Magesh Production Manager Madhu Jayanti International Private Limited, Coimbatore
Invited Lecture 4	Topic: "Higher Studies Opportunities and Pathways to Global Education in Food Processing and Technology" by Ms N V Gnanaprabha Senior Academic Counsellor Heralds International, Coimbatore
Day 2 - 25.10.2024 Invited Lecture 5	Topic: "Standards for Sustainable Food Production" by Shri V Gopinath Scientist G and Head Bureau of Indian Standards Coimbatore Branch
Invited Lecture 6	Topic: "Novel and Sustainable Food Technologies of Coconut and Cocoa to Promote Entrepreneurship" by Dr M R Manikantan Principal Scientist Physiology, Biochemistry, Harvest & Post Harvest Technology ICAR-Central Plantation Crops Research Institute Kerala
Paper Presentation (Slot 1)	Technical Paper Presentations
Paper Presentation (Slot 2)	Technical Paper Presentations
Concluding Session	Valedictory

Name of the Centre	The Institution of Engineers (India) Coimbatore Local Centre	
Nature of the Event	Technical Lecture	
Under the aegis of which Divisional Board:	Mechanical Engineering Division Board, IEI	
Title	"Industry 4.0 and 5.0 Revolution in Automotive Sector"	
Date & Time	08th February 2025 (Saturday)	
Speaker	Er Ramsankar T Deputy General Manager - Technical Robomatiic Coimbatore	
Associate organization/s (if any):	Department of Automobile Engineering Hindusthan College of Engineering and Technology, Coimbatore	
No. of Participants	110	
Event Summary :		

The Institution of Engineers (India), Coimbatore Local Centre organized a technical lecture on "Industry 4.0 and 5.0 Revolution in Automotive Sector" in association with the Department of Automobile Engineering, Hindusthan College of Engineering and Technology, Coimbatore on 08th Febraury 2025 (Saturday). The technical lecture was delivered by Er Ramsankar T, Deputy General Manager, Robomatiics, Coimbatore.

Dr Krishnamoorthi J, Chairman, IEI Coimbatore Local Centre welcomed the guest speaker and the participants. Dr Sabarinathan C, Professor and Head, Department of Automobile Engineering, Hindusthan College of Engineering and Technology, Coimbatore and Committee Member, IEI Coimbatore Local Centre delivered the felicitation address.

The technical lecture on "Industry 4.0 and 5.0 Revolution in Automotive Sector "by Ramsankar T explored the Industry 4.0 refers to the integration of smart technologies, automation, and data-driven processes in manufacturing. In the automotive sector, it includes advancements such as IoT-enabled factories, Al-driven production, robotics, digital twins, and predictive maintenance. Also he elobrated about Industry 5.0 builds upon Industry 4.0 by emphasizing human-centric, sustainable, and resilient manufacturing. It reintroduces human creativity alongside automation, promoting collaboration between humans and smart machines. In the automotive industry, Industry 5.0 focuses on personalized vehicle manufacturing, ecofriendly production, and Al-assisted decision-making. This shift aligns with sustainability goals, circular economy practices, and customer-centric innovation.

Finally, the vote of thanks was proposed by Dr G Madhan Mohan, Honorary Secretary, IEI Coimbatore Local Centre Professor, Department of Automobile Engineering, Hindusthan College of Engineering and Technology, Coimbatore.









Name of the Centre	The Institution of Engineers (India) Coimbatore Local Centre
Nature of the Event	World Environment Day 2025
Under the aegis of which Divisional Board:	ENVIRONMENTAL ENGINEERING
Title	End Plastic Pollution
Date & Time	05 th June 2025 (Thursday), 09.30 AM
Speaker	Shri D R KUMARASWAMY Director Prakruti Institute of Environmental Studies, Bengaluru & Former Chief Environmental Officer, Karnataka State Pollution Control Board, Bengaluru
Associate organization/s (if any):	Department of Civil Engineering Hindusthan College of Engineering and Technology, Coimbatore
No. of Participants	60
Event Summary :	

Event Summary:

The Institution of Engineers (India), Coimbatore Local Centre celebrated the "World Environment Day 2025" with the theme "End Plastic Pollution" in association with the Department of Civil Engineering, Hindusthan College of Engineering and Technology, Coimbatore on 05th June 2025. The lecture was delivered by Shri D R Kumaraswamy, Director, Prakruti Institute of Environmental Studies, Bengaluru & Former Chief Environmental Officer, Karnataka State Pollution Control Board, Bengaluru.

Dr J Krishnamoorthi FIE Chairman, IEI Coimbatore Local Centre gave the welcome and presidential address. **Dr K Akil,** Professor & Head, Department of Civil Engineering, Hindusthan College of Engineering and Technology and Committee Member, IEI Coimbatore Local Centre, introduced the guest speaker.

Shri D R Kumaraswamy, Director ,Prakruti Institute of Environmental Studies, Bengaluru & Former Chief Environmental Officer, Karnataka State Pollution Control Board, Bengaluru. delivered an insightful talk on the theme "**End Plastic Pollution**". He emphasized the urgent need to combat pollution through regulatory compliance and public participation. Key environmental laws and their practical implications were discussed with real-life case studies. He also highlighted the importance of education and awareness in fostering eco-conscious communities. The session encouraged students to become active contributors to environmental conservation. Participants found the talk highly informative and action-oriented.

Finally, the vote of thanks was proposed by **Dr G Madhan Mohan FIE**, Honorary Secretary, IEI Coimbatore Local Centre.



