



**LOYOLA-ICAM COLLEGE OF
ENGINEERING AND
TECHNOLOGY
(LICET)**



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**REPORT ON
INDUSTRY ACADEMIA
CONCLAVE 2024**

“INDUSTRY 5.0”

ORGANIZED BY

**DEPARTMENT OF
ELECTRICAL AND ELECTRONICS
ENGINEERING**

Introduction:

The 'Industrial Conclave - Industry 5.0,' organized by the Electrical Engineers League [EEL], unfolded with a harmonious prayer song, symbolizing unity and collective purpose. As the guest speakers and officials joined the event, an atmosphere of anticipation and enthusiasm filled the venue.

Felicitation:

The event commenced with the felicitation of distinguished guests, recognizing their significant contributions to the field of renewable energy. Dr Karunamoorthy Neethimani, the Managing Director of Wind Plus Pvt Ltd, was honored by Rev Dr S Sebastian SJ, the esteemed Director of the institution. Mr. Gowthaman Ashokan acknowledged for his expertise, received felicitation from Dr. William Christopher I, the Vice Principal. Further, Mr. Senthil Mani, Deputy General Manager at Siemens Gamesa Renewable Power Pvt Ltd, was recognized for his pivotal role in the industry by Mr. Prabhu Shankar, the Dean of Placement and Industry. The felicitation continued as Mr. Kudiarasu Murugesan, Manager of SCADA Service at Siemens Gamesa Renewable Power Pvt Ltd, was honored by Ms. Avila.

Presentation by Dr. Karunamoorthy Neethimani:

Dr. Karunamoorthy Neethimani, the Managing Director of Wind Plus Pvt Ltd, took the stage at the Industrial Conclave - Industry 5.0. In his insightful presentation, he shared his perspective on Industry 5.0, focusing on sustainable goals within the energy sector.

Dr. Karunamoorthy began by delving into the concept of Industry 5.0, emphasizing its relevance to achieving sustainable goals. He underscored the importance of understanding the energy sector, which currently relies heavily on thermal energy, accounting for 70-80% of electricity generation. Highlighting India's commitment to promoting renewable energy, he shared that the nation aims to increase its renewable energy share from 15% to an ambitious 45% by 2030. Dr Karunamoorthy noted an interesting development, with Gujarat surpassing Tamil Nadu in renewable energy generation over the past six months. He stressed the significance and importance of the energy sector, emphasizing the role of core engineering in achieving sustainable energy goals. He discussed the need to integrate Industry 5.0 with core engineering principles to unlock opportunities in the energy sector. Dr. Karunamoorthy explored the potential opportunities that Industry 5.0 presents in the

energy sector. He discussed the integration of Industry 5.0 in renewable energy, emphasizing aspects such as energy management and the overall positive impact it can have on the sector. Providing insights into practical implementation, Dr. Karunamoorthy outlined strategies for integrating Industry 5.0 in the energy sector. He touched upon renewable energy integration and energy management as key areas where Industry 5.0 principles can be applied effectively. An intriguing aspect of his presentation was the mention of Koutalya's Chana Kayas 6000 sutras. Dr Karunamoorthy shared that he applied only one sutra from this ancient text in his company, further highlighting the innovative approaches that can be adapted to modern industrial practices. The presentation concluded with an engaging Q&A session where students had the opportunity to interact with Dr. Karunamoorthy. Questions covered a range of topics, including his motivation for starting Wind Plus after leaving his job, insights on renewable energy, maintaining discipline in life, and the importance of clarity in thoughts and honesty.

In summary, Dr. Karunamoorthy's presentation at the Industrial Conclave provided valuable insights into the integration of Industry 5.0 in the energy sector, emphasizing sustainability, core engineering, and practical implementation strategies. The interactive session allowed students to gain a deeper understanding of his experiences and perspectives.

Presentation by Mr Gowthaman Ashokan:

Mr. Gowthaman Ashokan, the Manager of the Electronics Department at Schwing Setter India Pvt Ltd, delivered an insightful presentation on 'The Future of Automation' during the Industrial Conclave - Industry 5.0. The focus of his talk revolved around the advancements in smart manufacturing and the evolution of the industry from 3.0 to 4.0 and now to 5.0.

The key highlight of Mr. Gowthaman 's presentation was the integration of remote control in machines, emphasizing the ease of operation. He illustrated this concept with a practical example involving a machine used for pumping concrete. With the help of a remote control, operators can efficiently control the machine's functions, allowing it to pump concrete from the ground floor to several floors effortlessly. Furthermore, Mr. Gowthaman delved into the significance of data analysis in automation. He highlighted its applications in detecting fuel theft and monitoring the running hours of machines. This proactive approach not only enhances security but also contributes to better maintenance practices. In his futuristic outlook, Mr. Gowthaman discussed emerging technologies that are shaping the industry.

He introduced the audience to 3D printing and the concept of a 'digital twin,' emphasizing their potential impact on the automation landscape. Another pivotal aspect of his presentation was integrating artificial intelligence (AI) into supply chain management. Mr. Gowthaman shed light on the role of technology in this field, emphasizing how AI can revolutionize supply chain processes. This inclusion of advanced technology is poised to streamline operations and enhance efficiency in the overall industry.

In summary, Mr. Gowthaman's presentation provided a comprehensive overview of the future of automation, ranging from remote-controlled machines to cutting-edge technologies like 3D printing and digital twins. His insights into data analysis and the integration of AI in supply chain management offered valuable perspectives for the EEE students attending the event.

Presentation by Mr. Senthil Mani and Mr. Kudiarasu Murugesan:

The Industrial Conclave - Industry 5.0 featured insightful presentations from two distinguished speakers, Mr. Senthil Mani, Deputy General Manager at Siemens Gamesa Renewable Power Pvt Ltd, and Mr. Kudiarasu Murugesan, Manager of SCADA Service at the same company.

To begin, both speakers shed light on the evolution of the industry, tracing its journey from Industry 1.0 to the current Industry 5.0. This provided a comprehensive overview of how technology has transformed over the years, setting the stage for their discussion on renewable energy. Mr. Kudiarasu Murugesan delved into the intricacies of SCADA energy. His presentation covered the nuanced aspects of this technology, emphasizing its significance in the context of renewable energy systems. The audience gained valuable insights into the role SCADA plays in monitoring and controlling energy production processes. Following this, Mr. Senthil Mani took the floor to present a detailed account of wind energy generation. He provided a thorough breakdown of the various components involved and explained the maintenance work undertaken by Siemens Gamesa. Notably, he highlighted their innovative use of drones for analyzing windmills. These drones, capable of assessing a windmill in just 10 minutes, offer real-time data on the system's condition. This data allows for informed decisions on whether maintenance is required, demonstrating the integration of cutting-edge technology in the renewable energy sector. Moreover, Mr Senthil Mani elaborated on Siemens Gamesa's extensive installation of windmills across India, showcasing the company's commitment to expanding renewable energy infrastructure nationwide. In their concluding remarks, both speakers emphasized

the importance of continuously learning and adapting skills to meet industry requirements. They encouraged the EEE students to stay abreast of advancements in the field and hone their abilities accordingly. This final piece of advice aimed to inspire the next generation of electrical engineers to contribute effectively to the dynamic landscape of renewable energy.

In summary, the guest speakers' presentations at the Industrial Conclave provided valuable insights into the evolution of the industry, the intricacies of SCADA energy, and the cutting-edge practices in wind energy generation, leaving the audience with a deeper understanding of the challenges and opportunities in the realm of renewable energy.

Panel Discussion with Guest Speakers:

The panel discussion was featured by Mr. B. Allwyn Reuben, a sales specialist from Hitachi Energy, along with other esteemed guest speakers. The focus of the discussion revolved around the skills needed for the ever-evolving field of electrical engineering, the potential job market scenario, and the role of artificial intelligence (AI) in enhancing knowledge without causing job cuts.

Mr. Allwyn Reuben initiated the discussion by inquiring about the skills EEE students should develop. The panel emphasized the importance of aligning skill development with industry requirements. They advised students to actively learn and improve skills that are in demand within the field. The key takeaway was the need for continuous learning to stay abreast of the dynamic nature of the electrical engineering industry. The discussion shifted towards the concern of job cuts, particularly in the IT industry. The panel offered a reassuring perspective, stating that while the IT sector may experience significant job cuts, core engineering fields, including electrical engineering, have witnessed an increase in the intake of fresh talent. This highlighted the stability and demand for skilled professionals in core engineering domains. A crucial question raised by Mr. Allwyn Reuben was how AI can contribute to knowledge enhancement without causing job cuts. The panel responded by emphasizing the need for individuals to learn how to effectively utilize AI in their work. They advocated for acquiring the skills to harness AI for learning and applying it in the industry context. The consensus was that thoughtfully embracing AI could lead to a positive contribution to the industry rather than job displacement.

In summary, the panel discussion provided valuable insights for EEE students attending the 'Industrial Conclave - Industry 5.0.' It highlighted the importance of aligning skills with

industry demands, reassured students about job prospects in core engineering, and encouraged the responsible use of AI for knowledge enhancement without jeopardizing employment opportunities.

Vote of thanks;

The Head of the Department, Mr. Infantraj A, expressed his sincere thanks to our esteemed guest speakers, officials, staff, and students for their invaluable contributions to the success of the 'Industrial Conclave - Industry 5.0.' Special gratitude to Dr Karunamoorthy Neethimani, Mr. Gowthaman Ashokan, Mr. Senthil Mani, and Mr. Kudiarasu Murugesan for sharing their expertise in renewable energy. A heartfelt thank you to our felicitation dignitaries, Rev Dr S Sebastian SJ, Dr William Christopher I, and Mr. Prabhu Shankar. I also appreciate the hard work of our dedicated staff and the active participation of our students. This conclave has been a collaborative success, shaping the future of electrical engineering, and we look forward to future endeavors together. Thank you.