

## Report on Expert Lecture “Design, Installation, commissioning, operation & maintenance on Gas Insulated Substation (GIS)” on 31<sup>st</sup> August, 2019.

The **IEEE PES student chapter** of Sree Vidyanikethan Engineering College, Dept. Of EEE was organized an expert lecture on “**Design, Installation, commissioning, operation & maintenance on Gas Insulated Substation (GIS)**” held on 31<sup>st</sup> August, 2019 during 10.00 AM to 1.30PM at civil Seminar hall.

The objective of this expert lecture is to facilitate the importance of Gas Insulated substation operation, testing and maintenance for III EEE, M.Tech (EPS) students. and faculty. It was excellent opportunity for students to access the high quality expert lecture and possible Internship opportunities on Gas Insulated substation.



Group photo of participants with Resource persons and organizers

## **Brief Profile of Resource person:**

**Dr. G. Thulsiram**, Principal Electrical Engineer, McDermott, Chennai, India, He is also having 20 years of industrial experience on various conventional substations and Gas Insulated Substations. He published around 10 articles on several of national and international journals. The resource person delivered about his roles and responsibilities at McDermott, Chennai. In his speech, he also mentioned about his experiences on various industries, ethical attitude, roles and responsibility of electrical engineer in advanced industry.



***Dr. G. Thulsiram, Principal Electrical Engineer, McDermott, Chennai, India, delivering a lecture on GIS***

He presented the prime aspects of power Grid system in India and abroad and also the discriminate the traditional and future grid system and the major role and responsibility of Air Insulated Substation (AIS) and Gas Insulated Substation (GIS) in industry. His presentation mainly focuses on various components of Air



Insulated Substation (AIS) and Gas Insulated Substation (GIS), technical clearances among the components, safety precautions, and recommended IEC standards for various voltages applicable to petroleum, Chemical industry, and power companies in India and abroad. Some of the advantages and disadvantages of the various insulated materials used in GIS. He mentioned about the insight of SCADA, Outage management systems and life cycle of GIS. He demonstrated some of visual examples of various switching operations at AIS and GIS. He also presented the role of GIS on offshore substation construction challenges, Installation and design considerations in petroleum industry.



***Students, Faculty and Staff Practicing in Expert Lecture***

He also explored the key concepts of communication technologies at GIS and handling the latest maintenances issues through helicopter. Finally, he concluded with his real time experiences and the role of modern Engineers in industry must be

specific and must be effective function. Around 200 students of UG and PG from Electrical and Electronics Engineering benefitted with this expert talk.



***Demonstrating the GIS Substation components***





***Felicitation by Vice Principal (SVEC), HOD and faculty members.***

## **Faculty Interactions:**

The **Energy Center and Dept. of EEE** of Sree Vidyanikethan Engineering College, was organized an Industry oriented seminar for faculty on **“Research opportunities and Issues on Gases and Liquids used at various levels of GIS”** held on 31<sup>st</sup> August, 2019 during 02.30 PM to 4.15PM at EEE Simulation lab (Room No.110). The resource person delivered about the research opportunities, challenges and issues on Gases and Liquids used at Gas Insulated substation.

He demonstrated the Design considerations, Installation, commissioning, operation & maintenance of offshore substation used in the petroleum industry. In his presentation stressed about how to handle the key issues on outage management at GIS and its future perspectives. He also demonstrated some of visual demonstration on GIS Installations and power cabling and communication interfaces at offshore GIS substations in petroleum industry. Finally, interacted with various faculties on his past industrial experiences and challenges. With this seminar nearly 25 faculty members and PG students get benefitted.



***Dr. G. Thulsiram, Principal Electrical Engineer, McDermott, Chennai, India, delivering a lecture Gases and Liquids to faculty***





***Demonstrating the Insulation of Gases and Liquids to faculty at GIS Substation***



***Faculty participation in the seminar***

**IEEE Student Branch Counselor**