



## **SREE VENKATESWARA COLLEGE OF ENGINEERING**

(Approved by AICTE, New Delhi and Affiliated to JNTU, Anantapur)  
Northrajupalem (Vi), Kodavaluru(M), S.P.S.R Nellore (Dt)-524316

### **DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

#### **LIST OF GUEST LECTURES/TECHNICAL TALK**

<b>ACADEMIC YEAR</b>	<b>DATE</b>	<b>YEAR</b>	<b>TOPIC</b>	<b>RESOURCE PERSON</b>
<b>2019-20</b>	21-09-2019	III & IV YEARS	Industrial Power Electronic Drives	D.Lenine, Professor, RGM CET, Nandyal

### **A GUEST LECTURE ON**

#### **“INDUSTRIAL POWER ELECTRONIC DRIVES”**

Date: 24-09-2019

### **REPORT**

The Electrical and Electronics Engineering department has organized a **Guest Lecture** on “**INDUSTRIAL POWER ELECTRONIC DRIVES**” on **21-09-2019**. The resource person was **Dr. D. Lenine**, Professor, Rajeev Gandhi Memorial College of Engineering & Technology, Nandyal. The 3<sup>rd</sup> & 4<sup>th</sup> year students of EEE department have attended this guest lecture.

#### **Resource Person Profile:**

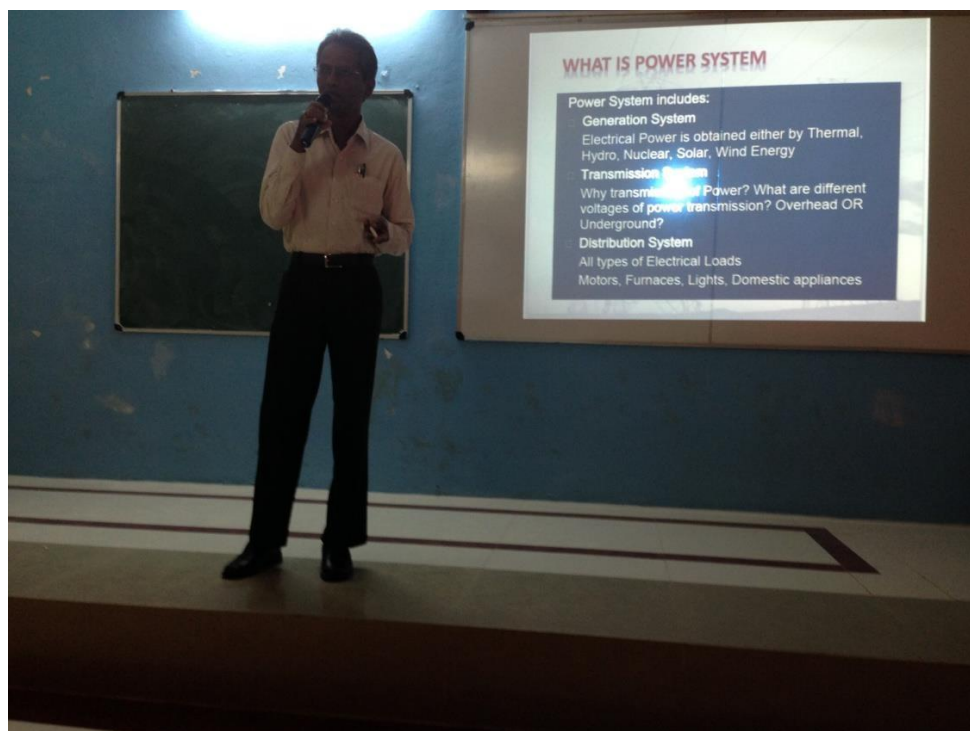
**Dr. D. Lenine** working as a Professor, in Rajeev Gandhi Memorial College of Engineering & Technology, Nandyal. from October 2006. He has 15 years of academic experience. He completed his Doctor of Philosophy (Ph.D) in Power Quality in power Electronics from JNTU, Kakinada. He published total 10 research papers in international reputed publications in the areas of power electronics, renewable energy technologies, power quality and more.

#### **About INDUSTRIAL POWER ELECTRONIC DRIVES**

Electronic applications use a wide variety of materials, knowledge, and devices, which pave the road to creative design, development, and the creation of countless electronic circuits with the purpose of incorporating them in electronic products. Therefore, power electronics have been fully introduced in industry, in applications such as power supplies,

converters, inverters, battery chargers, temperature control, variable speed motors, by studying the effects and the adaptation of electronic power systems to industrial processes. Recently, the role of power electronics has been gaining special significance regarding energy conservation and environmental control. The reality is that the demand for electrical energy grows in a directly proportional manner with the improvement in quality of life. Consequently, the design, development, and optimization of power electronics and controller devices are essential to face forthcoming challenges and discussing a wide range of topics contribute to addressing a wide variety of themes, such as motor drives, AC-DC and DC-DC converters, electromagnetic compatibility and multilevel converters.

The forenoon session started with keynote lecture on industrial power electronic drives, Power Electronic Devices, BJT, IGBT, MOSFET, Thyristors Rectifier and Inverter Bridge Circuits, Operational Amplifier and their application circuits, AC and DC Motor Fundamentals for variable speed control, Single and Four Quadrant Operation of DC Drives, DC Drive control Block Diagram Installation, Commissioning and Troubleshooting of Digital AC/ DC Drives AC Drive Topologies Power Circuit - Voltage Source, Current Source,



The afternoon session continued with the PWM Control Algorithms -V/f, Sensorless Vector, Vector Control Features available in modern AC Drives Selection, Installation and Parameterization of AC Drives AC and DC Drive Applications Issues Constant Torque and Constant Power Operation Master slave configuration, Energy Saving in Fan and Pump.

