MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE

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Report on Guest Lecture on "APPLICATIONS OF POWER ELECTRONIC CONVERTERS FOR POWER QUALITY IMPROVEMENT"
Conducted by Dept. of EEE on 29.09.2014

Resource Person: Dr. J.PRAVEEN, Professor & HOD, Department of EEE, GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY, HYDERABAD.

The programme started with an inaugural session, the HOD of EEE Department gave opening remarks about the event. Prof. M. Raja Reddy, Dean (Academic) stressed the importance of the topic, research in the area and advised the students to make use of this of the program. Mr. K.V. Satheesh Babu, Assistant Professor, Dept. of EEE introduced the Resource Person to the gathering, the Resource person briefed about topic and scope research in this area. M/s. J. Sivanvitha, Assistant Professor, Dept EEE Proposed vote of thanks for the inaugural session.

The first session of the day which focussed on the various power quality issues in the power systems and their impacts. The speaker then gave an account of various custom power electronic devices (CPD's). He focussed mainly on Dynamic Voltage Restorer (DVR) and briefed about the components of the DVR and discussed different topologies of the DVR.

In the second session of the morning, Dr. J. Praveen discussed about the voltage sag which is one of the main power quality issue that can be reduced with the help of DVR. He spoke about the various voltage sag detecting methods such as FFT method, DFT method, Novel voltage sag detection technique and Kalman Filter method etc. He emphasized on the Novel voltage sag detection technique which is very much superior when compared to other voltage sag detection technique. He also gave a brief idea about the symmetrical components in power system i.e. positive sequence, negative sequence, zero sequence components.

The resource person spoke about the control circuit of the Dynamic Voltage Restorer and also explained the conversion of static frame reference voltages to synchronous frame reference voltages and simulink diagram of two level Voltage Source Inverter Dynamic voltage Restorer with the wave forms showing that there is voltage improvement when sag in single phase, sag in two phases and sag in three phases.

In the next session, He discussed about the increase in power demand throughout the world, and he has extended his lecture to the problems that we are facing currently with the use of conventional sources like coal, diesel & gas and discussed about the increase in global temperature, carbon dioxide levels in the atmosphere year by year. He extended his lecture with the advantages of the non conventional energy sources like wind energy, solar energy, tidal energy etc. He discussed on the growth in solar energy sector from 7th century to 21st century with a drastic increase in solar cell production from the year 2000 to year 2013 and he concluded the session with the statement that "By the end of the year 2020, the energy produced by the solar energy is going to dominate all other forms of energy".

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The Guest Lecture ended with a valedictory function with a host of dignitaries such as Dr. K.V.R.B. Prasad (HOD-Dept. of EEE), Prof. Dr. B. Rama Kumar & Resource person Dr. J. Praveen gracing the dais. Participants gave positive feedback about the Guest Lecture. Dr.K. Ramesh, Associate Professor, Dept. of EEE concluded the event with a vote of thanks.

Press Release

ఈనాడు — 30.09.2014
ఆధునిక పరిజ్ఞానంపై దృష్టి సారించండి

సాక్షి — 30.09.2014
కన్వర్టర్లతో సజావుగా కరెంటు సరఫరా

ప్రజాశక్తి — 30.09.2014
విద్యార్థులు కొత్త ఆవిష్కరణలు చేయాలి

సూర్య — 30.09.2014 — 30-9-14 మంగళవారం
మిట్స్‌లో ఈఈఈ విభాగంలో సదస్సు

ఈనాడు — 29.9.2014 — సోమవారం 29 సెప్టెంబరు 2014
నేడు మిట్స్‌లో అతిథి ఉపన్యాసం

ఆంధ్రప్రభ — 29.9.14
మిట్స్‌లో గెస్ట్ లెక్చర్

నేడు మిట్స్‌లో వర్క్‌షాప్

సాక్షి — 29.9.2014 — 7
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