

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE

Two Day workshop on "EARTHING TECHNOLOGIES IN POWER SYSTEMS"

Under IIC through TEQIP II

Organized by: Department of EEE

Venue: EEE Seminar Hall,

Date(s) : 06-07 March, 2014



The Department of Electrical & Electronics Engineering of Madanapalle institute of Technology & Science has organized a Two Day Workshop for Students on "EARTHING TECHNOLOGIES IN POWER SYSTEMS" under IIC through TEQIP-II by H. Jayakumar, Director - Technical Galaxy Earthing Electrodes (P) Ltd, Retd. Joint Director – CPRI Bangalore during 06-07, March 2014. H. Jayakumar, delivered lecture on "EARTHING TECHNOLOGIES IN POWER SYSTEMS" with the aim to update the knowledge of professionals about the current techniques in Earthing Systems and to discuss the various problems related thereto. Proceedings of this workshop will also help the professionals in improving the performance and reliability of electrical power system, which is the need of the hour. Around 100 students from the host college participated in the workshop along with faculty members. Prof. KVRB Prasad, Head, Department of EEE was the convener, Sri K.P.P.Vadhiraj was the coordinator, other faculty and students of EEE were the organizers of this programme. During the programme session, expert has shared his rich practical knowledge of the subject with all the participants and are enriched by his adept and enlightening lectures.

His talk was enlightening the students on role of Earthing Technologies in power systems. He discussed the important role of Earthing in proper operation of generation, transmission and distribution systems. He focused on design & conceptualized skills of Earthing and their applications. He discussed four different methods of grounding used in practice such as *Plate earthing, Pipe earthing, strip earthing and mat earthing* in brief. Following that, he enlisted the various factors affecting the soil resistivity of any place. He then clearly explained the procedural steps for finding the soil resistivity using different methods such as *Equally spaced method, Unequally spaced method & central electrode method*.

In the afternoon session of day 1 i.e., 06-03-2014, he explained the concept of Ground resistance and discussed the various methods of measuring earth resistance such as *Fall of potential method, Slope method and IS: 3043 alternative method*. After this brief lecture session in the afternoon he took all the students and faculty to the switchyard near the generator room in MITS premises, where he practically demonstrated the various methods of soil resistivity measurement and ground resistance measurement. This practical session which lasted for nearly three hours in the afternoon was attended by all the students with a great level of energy and enthusiasm. They took a lot of interest in learning the concepts practically by involving themselves in the experimental procedures. The session ended around 5.45PM.

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The forenoon session of the second day (i.e., 07-03-2014) started with a discussion by the speaker on the importance of Calibration in instrumentation. He discussed various standards used in the past for calibration in the laboratories before he discussed the current trend of calibrating all the instruments and parameters using a single equipment called 'Multifunction Calibrator'.

There was a DAC meeting in the EEE department at 11.15AM during which he discussed with the faculty of EEE department about possible internship opportunities in the industry for EEE students and training programmes for faculty members, besides a possible visit for faculty members to research laboratories.

He concluded his lecture series with a discussion on current transformers (CTs) and Potential transformers (PTs). He explained the significance of CTs and PTs in instrumentation and power system protection and discussed in detail how to choose a CT and PT for any given application.

Finally, he clarified all the queries made by the students on lecture topics after which there was a feedback session in which three students voluntarily came up on to the stage and expressed their gratitude to the guest speaker by saying that they had gained a lot of knowledge, not just theoretical but also practical on the topics such as earthing practices, Calibration, CTs and PTs.

On the whole, the two-day work shop has proved successful. The purpose of the workshop is fulfilled and all the participants are beneficial.

Press Release

EENADU

అర్టింగ్ టెక్నాలజీతో ఉపయోగాలు

కురబలకోట, న్యూస్టుడే: అర్టింగ్ టెక్నాలజీ ద్వారా గృహవిద్యుత్తు మీటరు లోని రీడింగు వ్యత్యాసాలను అధిగమించవచ్చునని 'గెలాక్సీ అర్టింగ్ ఎలక్ట్రోడ్స్' సంస్థ సాంకేతిక సంచాలకులు జయకుమార్ స్పష్టం చేశారు. విద్యుత్తు సరఫరాలో అర్టింగ్ ప్రాముఖ్యతపై మిట్స్ ఇంజనీరింగ్ కళాశాల ఈతరం విభాగం ఆధ్వర్యంలో రెండు రోజుల అతిథి ఉపన్యాసాన్ని ఆదివారం ప్రారంభించారు. 'అర్టింగ్ టెక్నాలజీస్ ఇన్ పవర్ సిస్టమ్స్' అనే అంశంపై కార్యక్రమాన్ని నిర్వహించారు. అతిథి ఉపన్యాస కార్యక్రమానికి రిసోర్సు పర్సన్ గా వచ్చిన జయకుమార్ మాట్లాడుతూ అర్టింగ్ సక్రమంగా లేకపోతే విద్యుత్తు దీపాలు, ఇతరత్రా దెబ్బతి నడమే కాకుండా రీడింగులో హెచ్చుతగ్గులు వస్తాయన్నారు. ఇందులోని ప్లేట్ అర్టింగ్, ఫైవ్ అర్టింగ్ గురించి వివరించారు. విద్యుత్తు రంగంలో ఇంజనీర్లు పరిశోధనలు చేపట్టాలని సూచించారు. కార్యక్రమంలో ప్రిన్సిపల్ డాక్టర్ శ్రీనివాస్ రెడ్డి, విభాగాధిపతి డాక్టర్ ప్రసాద్, డీన్ రాజారెడ్డి, సహాయ ఆచార్యులు వాది రాజు తదితరులు పాల్గొన్నారు.