A Report of Guest Lecture on Simulation of substation on ETAP and adoption of relay settings on 22nd August, 2019.

A guest lecture on relay settings was held on 22nd august 2019 at EEE seminar hall, NNRG has started with guest biodata. All the students of third and fourth year with faculty were present. The main objective of guest lecture is to have better coordination and to avoid pullouts and tripping with practical awareness. Students had the knowledge about fault analysis which is carried out is ETAP and sequence of operation of breakers is achieved.

The objective of the ETAP project is to have command on modeling of distribution station for analyzing and to improve system efficiency, to analyze the load flow of a substation, to visualize the performance of the substation during various fault condition, to identify the zone of the fault, to categorize the fault based on the fault current and to declare breakdown, to have better coordination and to avoid pullouts, to integrate with DMS. The Speaker has clearly explained the process of simulation of substation can be used with Application software used, Designing of substation model, Simulation of substation model, Simulation result, Analysis report on the existing model ,Proposing for the new model, Integration of the substation model with the DMS. The different types of relays where we had a practical expose analysis is explained in detailed such as Over current relay, Distance relay, Differential relay ,Directional relay. The faults of the 20MVA PTR can be analyzed in detail range ie Severe faults ranges from 8.00KA to 11.00KA,High faults range from 6.00Kato 8.00KA,Medium faults less than 2.00KA. The Simulation testing of relays in LV and HV side are 11KV feeder relay, PTR LV relay .PTR HV relay, GC relay ,33KV feeder relay EHT. The composed new relay settings to avoid the chances of unnecessary pullouts.



Finally the speaker had a interactive session with the students for queries and feedback. At the end the guest lecture was concluded with the vote of thanks

Faculty Incharge



Education Society's Group of Institutions—Integrated Campus

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Date: 23/08/2019

Department of Electrical & Electronics Engineering

Academic Year: 2019-20 Semester: I

Activity: Guest Lecture.

Consolidated report and outcomes of the Guest lecture:

- 1. The Guest lecture was informative and realistic.
- 2. Majority of the students gained knowledge on ETAP and Relay settings in substations.
- 3. Students requested to have the practical session on ETAP and Relay settings.

Actions taken:

1.HoD has advised the incharge of Industrail Visit to plan for visit and create the opportunity to the students for the practical exposure.