GRIET/2022/IEEE IAS SBC-2

EVENT SUMMARY REPORT

<table>
<tr><td>GRIET/Other institutes/Organization

Address:</td><td colspan="3">GRIET</td></tr>
<tr><td rowspan="2">Department</td><td rowspan="2">EEE</td><td>Professional Body</td><td>Institutional Body</td></tr>
<tr><td>IEEE-IAS SB Chapter

IA34 (SBC64761C)</td><td>IEEE GRIET SB</td></tr>
<tr><td>Nature of the Event

(Workshop / Seminar / Guest Lecture / Tech Talk/FDP/GD/ Training Program / Quiz / Presentation/Conference/ Industry Visit/Any Co & Extracurricular Activities</td><td colspan="3">Industrial visit</td></tr>
<tr><td>Title / Theme of the Event</td><td colspan="3"><u>Industrial Visit To 400kV Power Grid Substation</u></td></tr>
<tr><td>Details of the Coordinators& Designation</td><td colspan="3">Dr. Pakkiraiah B

Associate Professor (department of EEE)

GRIET, Hyderabad

Mrs G Sandya Rani

IEEE GRIET IAS SB Chapter Advisor</td></tr>
<tr><td rowspan="2">Event Dates/Days</td><td>From</td><td>To</td><td>No. of Days</td></tr>
<tr><td>28th February 2022</td><td>28th February 2022</td><td>01</td></tr>
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<table>
<tr><td>Details of the Speaker / Guest

Organization

Address:</td><td colspan="5">Shri Mohammed Mosin, Deputy, General Manager, Power Grid Corporation of India Ltd Sub-station, Ghatkesar, Ranga Reddy District, Telangana, India</td></tr>
<tr><td rowspan="2">Participants

(Teaching Faculty / Non-Teaching Faculty / Students)

Enclose participants list</td><td>No. of Faculty</td><td>No.

of UG students</td><td>No. of PG Students</td><td>No. of outside participants</td><td>Total Participants</td></tr>
<tr><td>1</td><td>25</td><td>0</td><td>0</td><td>26</td></tr>
<tr><td>Faculty Names

& Designation</td><td colspan="5">Dr. Pakkiraiah B, Associate Professor, EEE Department</td></tr>
<tr><td>Summary of the Event</td><td colspan="5">The department of Electrical Engineering, Gokaraju Rangaraju College of Engineering and Technology, Hyderabad had organized a one-day Industrial visit to 400kV Power Grid Substation, Ghatkesar on 28th February, 2022. There were 25 students from EEE- III year along with teaching faculties Dr.Pakkiraiah. At 10:30 am, we reached at Substation, Ghatkesar. After reaching there, Shri Mohammed Mosin received us with a warm welcome. Mohammed Mosin sir had explained the working substation in depth. Then we were taken to the control room. In the control room, every quantity of the substation is continuously monitored and we observed the real time data of substation on the panel.

➢ OBJECTIVE OF VISIT:

The trip was organized by the Samskruti Foundation and this visit was known as "National Science Day Study Trip". This foundation is coped with many engineering colleges to provide awareness about value ethics, tradition and culture of India. Our main purpose for this visit is to be familiar with industrial environment and to get practical knowledge of electrical power transmission and distribution. Being III-year students, they will get to know about basic industrial functioning of power transmission and distribution. Students will also get familiar with Transformer maintenance, circuit breaker, Transformer isolator, bus bar, Protective relays, Lightening arresters, Load break switches, SCADA system, Current and voltage Transformer and Battery room.

➢ EQUIPMENT IN A 400KV SUB-STATION:</td></tr>
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The equipment required for a transformer Sub-Station depends upon the type of Sub-Station, Service requirement and the degree of protection desired. 400KV EHV Sub-Station has the following major equipment's:

• Bus-bar

• Insulators

• Isolating Switches

• Circuit breaker

• Protective relay

• Instrument Transformer

• Current Transformer

• Voltage Transformer

• Metering and Indicating Instrument

• Miscellaneous equipment

• Transformer

• Lightening arrestors

• Line isolator

• Wave tap

Shri Mohammed Mosin sir had explained the above equipment's one by one, their functions etc. He explained each and every thing with a great interest and shared a lot of knowledge with us. He explained the how the transmission and distribution takes places, the protective schemes taken to protect the equipment's present in substation.

- **SINGLE LINE DIAGRAM (SLD):**

A Single Line Diagram (SLD) of an Electrical System is the Line Diagram of the concerned Electrical System which includes all the required ELECTRICAL EQUIPMENT connection sequence wise from the point of entrance of Power up to the end of the scope of the mentioned Work. As these feeders enter the station they are to pass through various instruments. The instruments have their usual functioning.

- **CONCLUSION:**

Now from this report we can conclude that electricity plays an important role in our life. We are made aware of how the transmission the transmission of electricity is done. We too came to know about the various parts of the substation system. We are very grateful to 400 kV Ghatkesar Substation for giving permission for this visit. Students got an opportunity to know regarding practical aspects about what they are learning in theory. We hope that such kind of events will be given by Samskruti Foundation in future also. It was an informative, interesting and a successful visit.

IRG (in rupees**)** **Deposited A/C no A/C name and date and other details**	NA
Expenditure (in rupees**)** **(Enclose proof-bills)**	NIL
POs attained with this Event (number and description)	*1. Broad education necessary to understand latest trends and development in electrical machines.* *2. Recognition of the need for, and an ability to engage in life-long learning.*
Photographs of the event (Hard copy and soft copy)	


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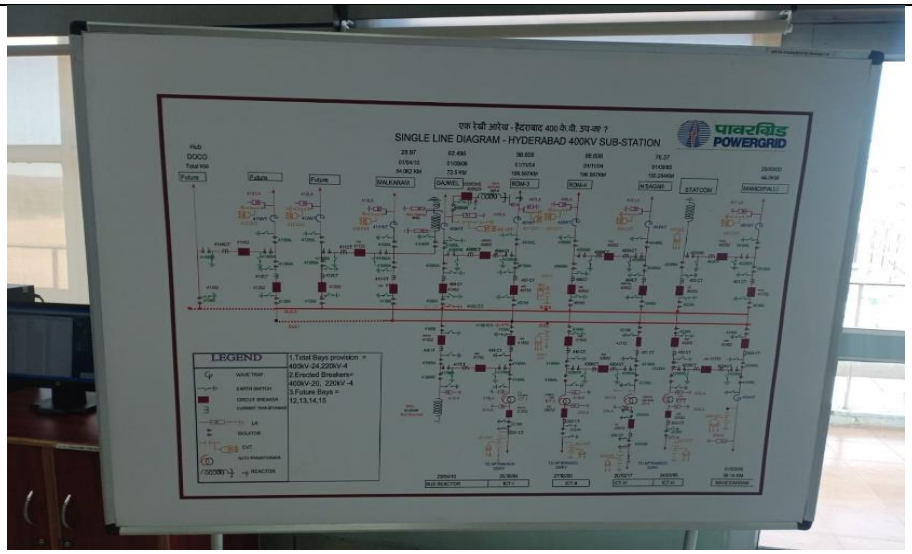
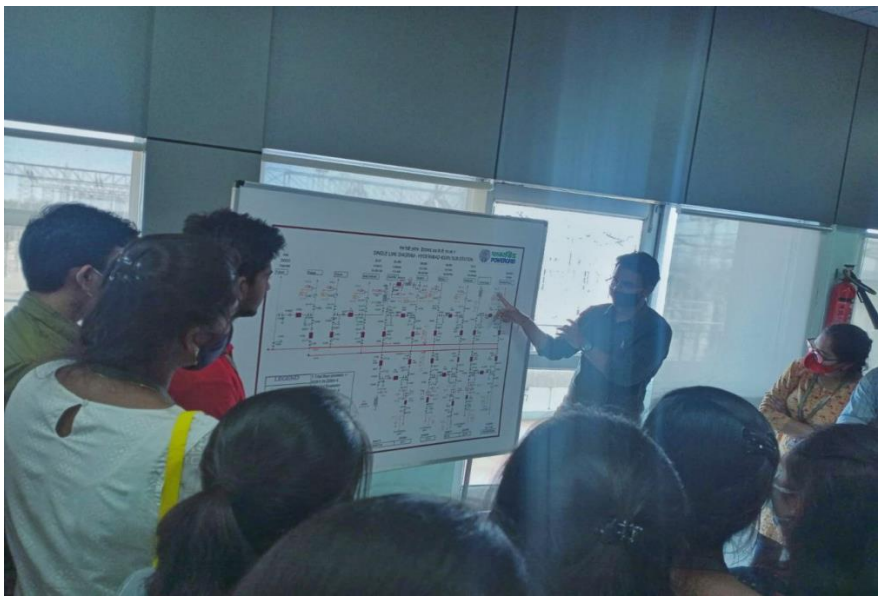

SINGLE LINE DIAGRAM - HYDERABAD 400KV SUB-STATION
POWERGRID
LEGEND



	
Proofs: **1.Certificates copies** **2.Profile of Speaker** **3.PPT/Material as applicable. etc.,**	

Signature of Coordinator

Signature of HOD