

Name: Muvva Srija

Entry no: 2020EE30605

Project Mentor: Dileep Nigam, HOD Rectifier

Internship Supervisor: Prof. Mustafijur Rahman

Internship: Vedanta Limited

Location: Jharsuguda, Odisha

Date	Work
15-06-2023	<ul style="list-style-type: none"><li>Reached Township, Accommodation</li><li>Discussed Rules to be followed</li></ul>
16-06-2023	<ul style="list-style-type: none"><li>Formalities</li><li>Documents checking, Vedanta profile creation</li><li>Induction program</li></ul>
17-06-2023	<ul style="list-style-type: none"><li>Total plant tour(overview) (smelters, powerplant, casthouse...)</li><li>Rules to be followed at plant</li></ul>
18-06-2023	<ul style="list-style-type: none"><li>ID card, safety kit issued</li><li>Safety precautions class</li><li>Emergency safety precautions</li></ul>
19-06-2023	<ul style="list-style-type: none"><li>Fire safety class</li><li>Carbon plant visit</li></ul>
22-05-2023	<ul style="list-style-type: none"><li>Potline visit (details of every machine)</li><li>Cast house visit</li></ul>
23-05-2023	<ul style="list-style-type: none"><li>carbon plant – GAP (green anode plant visit, details of anode making, physical and chemical quality check)</li><li>Bake Oven, rodding visit</li></ul>
24-05-2023	<ul style="list-style-type: none"><li>Mentor, project, dept, allotted</li><li>Project – 6th ICT (3x250 MVA) Transformer erection and commissioning</li><li>Meeting with HOD rectifier, HOD pscs</li></ul>
25-05-2023	<ul style="list-style-type: none"><li>Mind map of the process going here (power plant to potline to casting)</li><li>Understanding components installed at switchyard</li><li>Reading books of each components understanding their functioning</li></ul>
26-05-2023	<ul style="list-style-type: none"><li>Site visit 400kV switch yard</li><li>Plant 1 rectifier unit visit</li><li>Reading books of each components understanding their functioning</li></ul>
27-05-2023	<ul style="list-style-type: none"><li>Site visit 220kV switchyard</li><li>Studying Power system protection</li><li>What needs to be included in Project report overview from mentor</li></ul>
29-05-2023	<ul style="list-style-type: none"><li>Transformer construction for industrial uses</li><li>6<sup>th</sup> ICT installation (project) reliability</li><li>Pre commissioning &amp; post commissioning Tests performed on previous ICTs</li></ul>
30-05-2023	<ul style="list-style-type: none"><li>Pre commissioning &amp; post commissioning Tests performed on previous ICTs</li><li>Transformer protection methods</li><li>Protection systems using relays</li></ul>
31-05-2023	<ul style="list-style-type: none"><li>How tests are done</li><li>Why these tests are done</li><li>Studied about Transformer parts</li></ul>

01-06-2023	<ul style="list-style-type: none"> <li>• Project Site visit</li> <li>• GIB foundation</li> <li>• Why GIB (gas insulated busbar)</li> <li>• What is GIS (gas insulated substation)</li> </ul>
02-06-2023	<ul style="list-style-type: none"> <li>• Discussed contents need to be covered in Report</li> <li>• Report Making</li> <li>• Site visit (BUS B to BUS A changed)</li> </ul>
05-06-2023	<ul style="list-style-type: none"> <li>• Report making</li> <li>• Studying manuals provided by company</li> <li>• Environment Day programs</li> </ul>
06-06-2023	<ul style="list-style-type: none"> <li>• Site visit- protection systems for equipment</li> <li>• Overview of civil work at 6<sup>th</sup> ICT project</li> <li>• Report making</li> </ul>
07-06-2023	<ul style="list-style-type: none"> <li>• Plant 1(CPP) visit</li> <li>• Overview of their process</li> <li>• Report making</li> </ul>
08-06-2023	<ul style="list-style-type: none"> <li>• Rectifier units visit</li> <li>• Report making</li> <li>• Studies working of each component</li> </ul>
09-06-2023	<ul style="list-style-type: none"> <li>• Power plant (IPP) site visit</li> <li>• Operations, simulations data collected</li> <li>• Report making</li> </ul>
10-06-2023	<ul style="list-style-type: none"> <li>• Powerplant to 400kV switchyard – station transformer, generator transformer etc. visited</li> <li>• SLDs collected</li> <li>• Report making</li> </ul>
12-06-2023	<ul style="list-style-type: none"> <li>• Substations visit</li> <li>• Report making</li> <li>• Referring Test reports</li> </ul>
13-06-2023	<ul style="list-style-type: none"> <li>• 6<sup>th</sup> ICT project site visit</li> <li>• Report making</li> <li>• Previous ICT test reports collected</li> </ul>
14-06-2023	<ul style="list-style-type: none"> <li>• DC-DC interconnection site visit</li> <li>• Reliability of this DC-DC interconnection project</li> <li>• Collected data on how they managed breakdowns before</li> </ul>
15-06-2023	<ul style="list-style-type: none"> <li>• Study of Transformer protection system</li> <li>• Project Site visit</li> <li>• Report making</li> </ul>
16-06-2023	<ul style="list-style-type: none"> <li>• Project site visit</li> <li>• SCADA software Understanding</li> </ul>
17-06-2023	<ul style="list-style-type: none"> <li>• Gone through the previous ICT test Reports</li> <li>• Commissioning Test of ICT</li> </ul>

19-06-2023	<ul style="list-style-type: none"> <li>• Study of fire controlling systems</li> <li>• Report making</li> </ul>
20-06-2023	<ul style="list-style-type: none"> <li>• Study of Transformer protection system (working of each part)</li> <li>• Working of Alarms and trip elements</li> </ul>
22-06-2023	<ul style="list-style-type: none"> <li>• Understanding of SCADA operating modes</li> <li>• Overview of control panels</li> </ul>
23-06-2023	<ul style="list-style-type: none"> <li>• DGA test, BDV test</li> <li>• Study of Relays</li> </ul>
24-06-2023	<ul style="list-style-type: none"> <li>• Dry air pressure fallen -Why, How</li> <li>• Study of Research paper regarding the same</li> </ul>
26-06-2023	<ul style="list-style-type: none"> <li>• Overview of Automation of all substations</li> <li>• Requirements of this project</li> </ul>
27-06-2023	<ul style="list-style-type: none"> <li>• Studied operating modes of SCADA</li> <li>• Relay study from computer from control room</li> </ul>