

# A Report on One day Industrial Visit to POWERICA LIMITED, Bangalore Organised by Department of EEE On 15-11-2024

Submitted by: Mr. R. Ramesh Kumar, Asst. Professor, EEE Dept. and Mr. K. S. Rajesh Asst. Professor, EEE Dept.
Participants: III Year I semester, B. Tech III Year EEE students
Venue: POWERICA LIMITED, Bangalore
Date & Time of Event: 15-11-2024, 10:30 AM to 3:00 PM
Total no. of Participants: 46 Students + 3 Faculty Members
Organizer: Mr. K N Naidu, Electrical Consultant and Dr. T S Balaji Damodhar, Assistant Professor, EEE Dept.
Faculty Accompanied: Mr. K. S. Rajesh, Mr. R. Ramesh Kumar and Mrs. Sujatha

## Report Submitted on: 19.11.2024

## **Company Profile:**

Powerica Limited, was established in the year 1984 under the dynamic leadership of visionary Mr. Naresh Oberoi. It is also promoted by Bharat Naresh Oberoi and Kharatiram Kharak Puri, who have been involved in the diesel generator set business for several decades. Powerica has evolved to become a leading end-to-end power solution provider in conventional diesel-based, standby and prime power applications. Dynamic growth across verticals has also led Powerica to have a strong footprint in renewable energy projects.

Powerica is the Original Equipment Manufacturer (OEM) in India for Cummins India Limited, the global leaders in the design, manufacture, distribution and servicing of diesel engines.

The company is engaged in manufacturing of diesel generating sets, components and erection, supply-installationtesting & commissioning (SITC), operation maintenance, and other services relating to diesel generating sets. These services are provided for diesel generating sets with capacities from 7.5kVA to 2750kVA prime. In addition, they design and manufacture HHP (750kVA to 2000kVA) sound attenuated containerized DG sets that are portable and simple to install & ready to use (RTU) plug-and-play.

# **Objective of the Industrial Visit:**

The objective of this industrial visit is to provide students with a practical understanding of control panel wiring and diesel generator assembly processes. Specifically, the visit aims to:

- 1. **Understand Industrial Practices**: Observe the design, layout, and wiring processes involved in the assembly of control panels used in diesel generator set applications.
- 2. Learn Functional Details: Gain insights into the operation and functionality of diesel generator systems, including the integration of control panels for efficient operation.
- 3. **Explore Safety Standards**: Familiarize participants with safety protocols, quality control measures, and best practices followed during the assembly and testing of electrical components.
- 4. Enhance Technical Skills: Bridge theoretical knowledge with real-world applications by witnessing live demonstrations and interacting with professionals in the field.
- 5. **Develop Awareness of Industry Trends**: Understand the role of automation, advanced materials, and modern technologies in improving the efficiency and reliability of control panels and diesel generators.

#### The details of the Industrial visit are as follows:

The Department of Electrical and Electronics Engineering, MITS, Madanapalle organized a one-day Industrial Visit to "**POWERICA LIMITED, Bangalore**", on 15<sup>st</sup> November 2024 for Third year students. The visit was organized with the prior permission and guidance of **Dr. C. Yuvaraj** Professor & Principal and **Dr. A.V. Pavan Kumar** Professor & Head of the Department. A total of 46 students along with 3 faculty members have joined the visit.

- 1. We started from our college premises sharply at 6.00 AM on 15<sup>st</sup> November 2024.
- 2. We reached "POWERICA LIMITED, Bangalore", by 10:30 AM
- 3. Upon arrival, participants were warmly welcomed by the company representative **Mr. Seetharam**, DGM HR and IR.
- 4. At 11.00 AM, we visited the Control Panel Wiring Section with the Senior Engineer Mr. Sunil Leema, where the assembly and wiring on Control Panels for the DG Set was explained to the students by Mr. G.V. Mahadev, Senior Engineer and Mr Gopi, Senior Engineer.

- 5. At 12.00 PM, we have been taken to Pre-Treatment department where CNC Bending, Punching, Fabrication and Powder Coating of the DG outer casing was explained to the students by Mr.Sanjay L, Technical Trainee.
- 6. At 1.00 PM, we moved to the DG Set Assembly Section where Mr. Sunil Leema, Senior Engineer (Maintenance Department) gave a detailed overview of the Diesel Generator assembly process and various parts of the DG Set.
- 7. At 2.00 PM, the company had provided lunch to the students and faculty members visited.
- 8. At 3.00 PM we headed back to our college and reached at about 8.00 PM.

#### **Outcome of the Industrial Visit:**

- 1. **Practical Exposure**: Participants gained an exposure to the processes and techniques involved in control panel wiring and diesel generator assembly.
- 2. **Enhanced Technical Knowledge**: Improved understanding of the design, functionality, and integration of control panels with diesel generators for industrial applications.
- 3. **Understanding Safety and Standards**: Familiarity with industry-standard safety practices, quality assurance protocols, and compliance requirements in electrical system assembly.
- 4. Appreciation of Modern Technology: Awareness of the latest advancements in automation, materials, and technology used to improve the efficiency and reliability of control systems and power generators.
- 5. **Internship Opportunity:** Students have the opportunity to undertake internships to enhance their industry-relevant skills.

#### Sample Photos:



#### Sample Feedback from Industry and Students:

| Madanapalle Institute o<br>Department of Electrical  | f Technology and Science,<br>and Electronics Engineering   |
|--|--|
| FEEDBACK REPORT  | ON INDUSTRIAL VISIT  |
| CLASS: 8. Tech III Year I semester   | ACADEMIC YEAR: 2024-25   |
| Name and Address of Industry Visited Powerica Limit  | ed, Bommanahali, Bengaluru.  |
| Date: 15.11.2024   | Duration: 10.30Am to 2.00Pm  |
| Beneficiary Dept. : EEE  | Year/Semester: III / I   |
| Total No. of Students: 46  |  |
| Industrial Visit organized by: Dr TS Balaji Damodhar,  | Assistant Professor, Dept. of EEE  |
| Name of Industrial Visit in charge and other Faculty w   | ho accompanied the students  |
| Site in charge: MY . Seetharam . DGin  | - HRLIR  |
| Other Faculty Names:   |  |
| 1. Mr. K. S. Rajesh  |  |
| 2. Mr. R. Ramesh Kumar   |  |
| 3. Mrs. Sujatha  |  |
| Contact Person at Industry: Mr. Rephavendra Presed   |  |
| (Sr Manager Project Marke  | ting) - Powerica Limited   |
| Visit related to the subject: Electrical Power Generatio   | n Systems & PLC Automations  |
| During the visit, the students were taken to following<br>15-Shed-04, (AL Bending, Riakhin,<br>Pre-Readement Daph<br>24, Shed-01, 08, 403, 0.4. Alshab<br>35, Shed-01, 0.8, 403, 0.4. Alshab<br>34, Shed-01, 0. Confrol Panel  | Separamenes in the Industry.<br>J. Abrication, Resider Carting +<br>Yearst.<br>Uning Cechian.  |
| Names of Student who offered feedback (reedback en<br>1 Talla chaitering Lakeburi (22 b9<br>2 G. Realds both (22 b9/1023)<br>3 M. Mozenakshi (23 b9/1023) Forf<br>4 D.Vishmu Wurdhen Redde (23 b9/1024)<br>Sign of Industrial Visit for charge with Seal:<br>9 Faller F.B. (D. Sign of Faculty Constraints)<br>Sign of Faculty in charge | Cosed)<br>140 20 S)<br>OWERICA LIMITED<br>BM-HR & Admin<br>Lify Organizer<br>Power<br>Binature Horoannen<br>Hoad of the December<br>Binature Horoannen |
| <ol> <li>Industrial Visit report with photographs,</li> <li>Permission letter</li> </ol>   | Mademapels Institute of Technology & Science<br>ADDANAPALLE - 517 325  |

Madanapalle Institute of Technology & Science

Department of Electrical & Electronics Engineering

INDUSTRIAL VISIT FEEDBACK FORM

Course, Branch & Semester: III Year I Semester-

Madanapalle Institute of Technology & Science

Department of Electrical & Electronics Engineering

| INDUSTRIAL VISI                            | FFEEDBACK FORM             | 23695AD216             |
|--|----------------------------|------------------------|
| Name of the Student: U. Vizho Varalon Vady | Course, Branch & Semester: | : III Year J Semester- |
| EEE T                                      |                            |                        |

Name of the Student: Talla Challanya EEE Lakshmi Date: 15.11.2024 2269140205 Name of the Industry: Powerica Limited, Bengaluru. Type of Interaction: Industrial Visit

| Name of the Industry: | Powerica | Limited, | Bengaluru. | Date: 15.11.2024 |
|-----------------------|----------|----------|------------|------------------|
|                       |          |          |            |                  |

|   | ······································ | Type of Interaction: Industrial Visit  |                                      |
|---|--|--|--------------------------------------|
| Questions   | Response of Students                   | Questions  | Response of Students                 |
| Relevance of the industrial visits (or input received) w.r.t your curriculum  | G Excellent O Good O Fair O Poor       | Relevance of the industrial visits (or input received) w r.t.your curriculum   | O Excellent & Good O Fair O Pour     |
| Whether any specific official was assigned<br>for you during the training (or visits)   | Prices O No                            | Whether any specific official was assigned<br>for you during the training (or visits)  | & Yes O No                           |
| Willingness to share information & details<br>by the officials of the organization  | Excellent OGood O Fair O Poor          | Willingness to share information & details<br>by the officials of the organization   | Excellent OGood O Fair O Poor        |
| Access to different facilities of interest to<br>you - for observation, gather knowledge and<br>get your clarifications cleared                                       | O Excellent & Good O Fair O Powr       | Access to different facilities of interest to<br>you - for observation, gather knowledge and<br>get your clarifications cleared  | O Excellent & Good O Fair O Poor     |
| Whether any relevant technical literature<br>explained by the Industry person   | Syes O No                              | Whether any relevant technical literature explained by the industry person   | Ves ONO                              |
| Was the whole training based on a well-<br>defined schedule and adherence to the<br>schedule?   | Ories O No                             | Was the whole training based on a well-<br>defined schedule and adherence to the schedule?   | OYes ONO                             |
| Was the opportunity given for you to work<br>on real time problem or practical problem or<br>on the day to day activities of the<br>organization?                     | O Yes ØNo                              | Was the opportunity given for you to work<br>on real time problem or practical problem or<br>on the day to day activities of the<br>organization?                      | & Yes & No                           |
| to the people in the organization encourage<br>interaction with them or extended support in<br>larifying your doubts or providing<br>information you have sought for? | Ares O No                              | Do the people in the organization encourage<br>interaction with them or extended support in<br>clarifying your doubts or providing<br>information you have sought for? | Q'Yes O No                           |
| lospitality of the industry (willingness to<br>clp you for any problems faced during the<br>eriod where it is agreed upon etc.)                                       | Excellent O Good O Fair O Pour         | llospitality of the industry (willingness to<br>help you for any problems faced during the<br>period where it is agreed upon etc.)                                     | O Excellent & Good O Fair O Poor     |
| Overall usefulness of the interaction with the industry   | Excellent O Good O Fair O Poor         | Overall usefulness of the interaction with the industry  | O Excellent o Good O Fair O Poor     |
| our recommendation for considering this<br>ganization for Industrial visit (or industry<br>stitute interaction) in future   | O Strong O Can be considered O Not     | Your recommendation for considering this<br>organization for Industrial visit (or industry<br>institute interaction) in future   | O Strong of Can be considered O Not. |

#### **Acknowledgments:**

We express our sincere gratitude to the Management, Principal, Dean-Administration, Vice Principal (Academics and Administration), Associate Dean-IIIC, Head of the Department-EEE and Academic Head (EEE) for their unwavering support and encouragement. We extend our heartfelt gratitude to Mr. K. N. Naidu, Electrical Consultant, for his invaluable assistance in obtaining permission for the industrial visit. Their continuous backing was instrumental in organizing and facilitating this insightful industrial visit, providing our students with a platform to bridge theoretical learning with practical exposure.