Schneider Graduate Program – Technical



Electrical & Automation (E&A) offers a wide range of products, solutions, and turnkey services for electricity distribution and control, across various sectors: Industries, Utilities, Buildings, Residences, and Agriculture.

Electrical & Automation (E&A) is one of the largest manufacturers of low and medium voltage switchgear components, low & medium voltage switchboards, power quality solutions, solar energy solutions, energy management system & metering solutions, life cycle enhancement (modernization), and industrial automation solutions. These products and solutions cater to the distribution, monitoring, and control of electrical power in industries, utilities, buildings & critical infrastructure, national assets, and agriculture sectors.

A popular brand in the country, Switchgear performs efficiently and delivers quality power and management of energy in different environmental conditions. Designed to perform with reliability, all switchgear products offer several safety, communication, and data management features.

Currently, over 1000 channel partners in major cities and towns distribute E&A's switchgear products. A network of 120 approved service centers supports the necessary maintenance of these products.

E&A makes high-quality energy meters and protective relays for utilities, industries, commercial establishments, and domestic consumers. The meter range, popular as Meters, includes programmable tri-vector meters, single-phase, three-phase meters, and intelligent meter panels.

A key capability of E&A is low and medium-voltage switchboards and control panels. It is the market leader in low-voltage switchboards and the largest supplier of switchboard panels in India. E&A undertakes turnkey contracts for comprehensive system engineering, supply, installation, testing, and commissioning of switchboards and allied equipment including retrofitting.

With its systems integration capability, E&A offers solutions to diverse industry segments like oil & gas, water, minerals & metals, power, solar, and infrastructure under the umbrella of Automation. It provides a large gamut of solutions comprising control and monitoring, system design, application engineering, intelligent software development, commissioning, and life cycle services. Its biggest strength is its ability to integrate varied components from field devices to the management dashboard comprising instrumentation, electricals, drives, inverters, automation, SCADA, telecom, and engineered IT solutions tailor-made to customer needs.

Seven decades-old in-house design and development center for switchgear as well as tooling solutions for High-precision tools form the backbone of E&A's leadership in switchgear business in India.

E&A has been on the path to consistently reducing the environmental footprint of its operations. With a consistent investment in energy reduction initiatives, there has been an increase in the use of renewable energy. Necessary interventions in the processes have reduced GHG emissions by almost 21% in 2020over 2016. E&A has green buildings at three of its major locations that ensure operations at these facilities remain eco-efficient.

E&A's manufacturing operations in India are located at Navi Mumbai (Mahape), Ahmednagar, Vadodara, Coimbatore and Mysore.

E&A's Global operations:

The International operations of the Electrical & Automation (E&A) business are about forging connections withnew geographies and markets and making a mark with a host of offerings to mega projects in a variety ofindustry verticals. These operations cover electrical equipment manufacturing and supplies, electrical systems solutions, and systems integration through automation solutions.

To strengthen its foothold in the Middle East region, E&A set up a manufacturing facility in Dammam & Malaysia for manufacturing, marketing, and sales of Low and Medium Voltage Switchboards and related systems solutions, as well as allied products. E&A offers a comprehensive range of MV switchgear in the international market.



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Important Information about the Schneider Electric University Program

- Stipend: INR 35,000 per month for Internship Roles
- Job Location: Mumbai, Ahmednagar/ Vadodara (pan India basis business requirement)

This is **an Indicative Job Description** (JD) for our R&D division. We request all the students to go through the same. The students should also be flexible and open to work in any of these Sub Departmentsif selected Internship or a Full-time - Time Role

JOB DESCRIPTIONS OF INTERNS

**This job description sets out the scope of the role of INTERN and Schneider Electric, together with the main duties of the position at the date when it was completed. It does not include or define all tasks that may be expected to be carried out. Duties may vary from time to time without changing the nature of the position or level of responsibility.

INTERN-Testing/Product Certification

Description

The Intern will take an active role in

- Validation of embedded hardware designs with respect to standard and customer requirements.
- Present the product and negotiate with third-party laboratories to Intern the right certification at a lower cost and in due time.
- Maintain the validity of existing product certifications/licenses.

Responsibilities

- Understand the product requirements/specifications to validate and check the product compliance through testing.
- Plan and carry out in-house testing and maintain records for assigned testing jobs.
- •
- Work collaboratively with the design and product management team to carry out certificationactivities.
- Interact and coordinate with third-party labs/certification bodies to complete/maintain various product certifications required for business.
- Maintain documentation for the activities responsible as per the departmental procedures.

Qualifications

Business / Soft Skills

- Must have solid business communication and interpersonal skills.
- Ability to work effectively with various stakeholders from business.
- Ability to manage multiple priorities in a fast-paced environment.
- Quick learner to understand new product requirements

Technology Skills and Project/Internship Experience

- Strong fundamental knowledge of electrical engineering.
- Ability to study and understand product standards.
- Ability to showcase Data Analysis skills and problem-solving capabilities.
- Strong knowledge of Microsoft applications (Excel, Word, Teams, etc.)

Education

B.E./B. Tech Electrical & Electronics

INTERN-COMPONENT ENGINEERING, DESIGN

Description

The Intern will take an active role in evaluating and qualifying electronic/electrical components for new product development and supply chain requirements.

Responsibilities

- Evaluate and compare alternate components for technical parameters.
- Understand the application of components in various products and platforms.
- Decide testing requirements in product platforms based on schematics and application.
- Conduct technical discussions with product owners.
- Follow the stagewise process for component qualification and approval.
- Interface with quality team and sourcing team to resolve queries.
- Report progress to the management

Qualifications

Business / Soft Skills

- Must have good presentation, communication, and interpersonal skills.
- Ability to work effectively with cross-functional teams.
- Ability to manage multiple priorities in a fast-paced environment.
- A data-driven and process-oriented mindset is a must.

Technology Skills and Project/Internship Experience

- Strong technical knowledge of electronic circuits, types of components, and parameters
- Knowledge of power supply design and components used.
- Knowledge of capacitors and construction, batteries and memories
- Knowledge of programming languages such as C/C++/C#, Python
- Ability to showcase Data Analysis skills and problem-solving capabilities.
- Academic project experience on hardware and software platforms will be a plus.

Education

• B.E./B. Tech, Electronics & Communication

INTERN-MTG

Description

The Intern will take an active role in Research & Development and contributetowards the Manufacturing Technology initiatives and projects.

1. Responsibilities (common for Mechanical, Electrical & Electronics & Mechatronics)

- Creation & Application of New Technology in Manufacturing Processes.
- Conceptualize, Design of New SPM's, Measuring & Inspections Systems.
- Design of Pneumatic & Hydraulic Circuits & systems
- Troubleshooting of Assembly Lines, SPM & standard Equipment.
- Development of Prototype systems and low-cost automation systems.
- Co-ordinate with different functions for smooth implementation of projects.
- Achieve intended Productivity & Quality
- Initiatives to reduce NVAs.
- Capacity enhancement on existing SPMs, Lines
- Documentation for Manuals, Knowledge Management, Technical write-ups, patents etc.

Business / Soft Skills (common for Mechanical, Electrical & Electronics & Mechatronics)

- Must have a solid presentation, communication, and interpersonal skills.
- Should be able to work in a cross-cultural and cross-functional global environment.
- Have a logical mindset for problem-solving and precision-driven, innovative solutions.
- Should possess a keen interest in learning new technologies.
- Should be adaptable to changing trends and driven to enhance business and technological acumen.
- Should be able to manage multiple priorities in a fast-paced environment.
- An excellent attention to detail.

Technology Skills and Project/Internship Experience: (this is for Electrical & Electronics & Mechatronics candidates)

- Control system design.
- PLC programming (Schneider, Allen Bradley, Mitsubishi)
- Programming in LabVIEW, VB.net, SQL, HMI,
- SAP integration with MES
- Strong knowledge of Microsoft applications (Excel, Word, Teams, etc.)
- Ability to showcase Data Analysis skills and problem-solving capabilities with Logical interpretationand reasoning.
- Exposure to the business world through projects/Internships is a plus.

Technology Skills and Project/Internship Experience: (for Mechanical INTERN candidates).

- Conceptualize, Design of New SPM's, Measuring & Inspections Systems.
- Design of Pneumatic & Hydraulic Circuits & systems
- Troubleshooting of Assembly Lines, SPM & standard Equipment.
- Development of Prototype systems and low-cost automation systems.
- 2D/3D modeling in Creo /AutoCAD

Education

B.E./B. Tech in Mechanical and Electronics or Mechatronics

INTERN-R&D

Description

The Intern will take an active role in Research & Development and contribute towards the New Product Development and Product Life Cycle Management initiatives and projects. **Responsibilities**

- Design & development of Low voltage Switchgear products like Air Circuit breakers, Molded Case Circuit Breakers, Contactors, Relays, and Starters etc.
- Understanding the technological trends, market demands, customer preferences and competitors' strategy
- Intern conversant with the latest design trends in L.V. switchgear products.
- Develop fair idea/ knowledge of engineering plastics and contact materials, their properties, characteristics used in switchgear.
- Understand and apply Indian and International Standards on L.V. Switchgear and their Testing.

Qualifications Business / Soft Skills

- Must have a solid presentation, communication, and interpersonal skills.
- Should be able to work in a cross-cultural and cross-functional global environment.
- Have a logical mindset for problem-solving and precision-driven, innovative solutioning.
- Should possess a keen interest in learning new technologies.
- Should be adaptable to changing trends and driven to enhance business and technological acumen.
- Should be able to manage multiple priorities in a fast-paced environment.
- An excellent attention to detail.

Technology Skills and Project/Internship Experience

- Use product design packages like PRO-E, and Solid Edge.
- Knowledge of Simulation programs like ANSYS will be preferred.
- Good understanding of current technological trends.
- Strong knowledge of Microsoft applications (Excel, Word, Teams, etc.)
- Good knowledge of the design & development process
- Ability to showcase Data Analysis skills and problem-solving capabilities with Logical interpretationand reasoning.
- Exposure to the business world through projects/Internships is a plus.

Education

• B.E./B. Tech in Electrical, Mechanical, and Electronics & Communication.

INTERN- New product industrialization

Description

The Intern will take an active role in Research & Development and contributetowards the New Product Engineering and building strong Manufacturing Processes.

Responsibilities

- Concurrent Engineering of Sub-assemblies and assemblies during Design
- Work on assembly line & workstation layout, Improve production processes, Manpower calculation.
- Planning, developing, and implementing assembly processes for Switchgear with Quality,
 Quantity, and Time target.
- Planning, Procuring, and Productionising Press tools.
- Planning and Developing sheet metal components of new products
- Creating SAP masters for productionising
- Preparing and updating documentation like Process Sheets, SOP
- Documentation like Routings, SOP, BOM, Mat. Masters, SIR
- Conducting PFMEA and set fail-proof processes.
- · Set up processes like welding, Assembly, Riveting
- Manufacturing process knowledge and Statistical techniques

Qualifications Business / Soft Skills

- Must have a solid presentation, communication, and inter-personal skills.
- Should be able to work in a cross cultural and cross-functional global environment.
- Have a logical mindset for problem-solving and precision-driven, innovative solutioning.
- Should possess a keen interest in learning new technologies.
- Should be adaptable to changing trends and driven to enhance business and technological acumen.
- Should be able to manage multiple priorities in a fast-paced environment.
- An excellent attention to detail.

Technology Skills and Project/Internship Experience

- Manufacturing process knowledge, PFMEA, and Statistical techniques
- Strong knowledge of Microsoft applications (Excel, Word, Teams, etc.)
- Good knowledge of the design & development process
- Ability to showcase Data Analysis skills and problem-solving capabilities with Logical interpretationand reasoning.
- Exposure to the business world through projects/Internships is a plus.

Education

B.E./B. Tech in Mechanical and Electronics or Mechatronics

INTERN– Automation

Description

The Intern will take an active involvement in the following roles and can be placedacross the below functions.

- Engineering (Erection/commissioning/Execution)
- Tendering & Proposals
- Project Engineering

Qualifications Business / Soft Skills

- Must have a solid presentation, communication, and interpersonal skills.
- Should be able to work in a cross cultural and cross-functional global environment.
- Have a logical mindset for problem solving and precision-driven, innovative solutioning.
- Should possess a keen interest in learning new technologies.
- Should be adaptable to changing trends and driven to enhance business and technological acumen.
- Should be able to manage multiple priorities in a fast-paced environment.
- An excellent attention to detail.

Technology Skills

PLC /SCADA/RTUs /Drives/LAN /Networking/ Security & surveillance, PAGA,

Education

• B.E./B. Tech in Electronics or Electronics & Communication.