

# Internship Notification Form, IIT Delhi

## About Organisation

<b>Name of Company:</b>	Jaguar Land Rover Technology and Business Services India Limited
<b>Date of Establishment:</b>	2024-07-12
<b>Number of Employees:</b>	600
<b>Social Media Page Link:</b>	<a href="http://www.jaguar.com">www.jaguar.com</a>
<b>Website:</b>	<a href="http://www.jaguar.com">www.jaguar.com</a>
<b>Type of Organization:</b>	Private
<b>Nature of Business:</b>	Core Engineering & Technology

## Internship Profile

<b>Job Title:</b>	EV-Powertrain (Hardware) Intern
<b>Job Description:</b>	<p>Power Electronics, Electric Drives &amp; Controls are the key discipline areas in the development of hybrid and electric vehicles. Members of this Team will engage in the design and development of HV Architecture components for our Hybrids and EVs, namely:</p> <ul style="list-style-type: none"><li>• Traction eMachine and Inverter (the 'eDRIVE')</li><li>• eDRIVE Controls development</li><li>• Electrification Electronics (incl. Vehicle Chargers, DCDC converters and Battery Management Systems)</li><li>• High Voltage System Integration</li></ul> <p>Our engineering graduate program has been designed to be just as inspiring as the cars you'll help produce. This is an accelerated program for engineers to develop a broad exposure as well as depth in Power Engineering (Power Electronics, eMachines and Controls) through innovative projects, intense technical &amp; leadership trainings and mentorships.</p> <p>The engineer will typically plot out the various aspects of the tasks that will be necessary, usually using design documentation and flowcharts to help illustrate the process. You will be an integral part of shaping JLR's next generation vehicle programs. In this role, you will contribute to the mission of delivering most innovative solutions in the field. You will be part of the team that drives product strategy and collaborate closely with engineering development and cross-functional teams to define and deliver on the next vehicle programs. Join us in this pioneering area, and it will be your ideas and expertise setting the benchmark for automotive innovation across the globe. Final Placement upon successful completion graduate program shall be based on requirements, performance and individual's aspiration.</p>

GEET role demands dynamic individual who can adapt to constantly changing environment, executing and successfully delivering time constrained and intensive automotive programs. Working closely with numerous cross functional teams, partners and supplier groups is key.

Who we are looking for:

Our cars are the embodiment of our approach to life. We believe in making every day extraordinary; that life is about feelings, not just figures. We feel the same about the people we hire.

First, you need to be passionate and motivated to contribute to the business growth and on-going success. Beyond that, we value resilience, a sense of responsibility, a willingness to learn, keen problem-solving skills and the ability to work with others.

Our people are amongst the most talented in their field. Working alongside them, you'll play your part in developing advanced products in a company that's committed to building on every aspect of its success.

We're looking for individuals who have taken the time to think about who we are and what we're looking for. Our selection process is aimed at showcasing the best of your skills, expertise and personality.

#### Key Performance Indicators

- Willingness and ability to learn
- Work seamless in teams within and outside JLR (e.g., Hardware Partners, Suppliers, Universities)
- Ability to work independently
- Communication skills
- Work discipline

#### Key Accountabilities and Responsibilities:

- Involve into design activity of High Voltage components including
  - o E-Machines and Inverters
  - o Chargers and DCDC Converters
  - o Battery Management Electronics
  - o Engine Controller
  - o High Voltage Systems
  - o Verification and Validation of EDU

Test case development for coverage and functional testing of automotive applications

- Work with a multi-disciplinary engineering development team that includes application engineering, controls engineering, mechanical design, control hardware design, and test / validation in an Agile fashion
- The candidate should have the willingness to travel within India and overseas if required for competency building /Product testing/Problem solving
- Keep informed on emerging new technologies to advance our architecture/technologies to support current and forward model vehicle programs
- Collaborate with cross-discipline teams to design, develop and test power electronics & eDrives
- Design and execute test cases for unit, function, subsystem testing and acceptance testing
- Benchmark and optimize the performance of new and existing units
- Adhere to department's quality targets and participate in

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#### Knowledge, Skills and Experience:

##### Essential:

- Candidates must have completed 6th semester (entering final year of their undergraduate program) Electrical, Electronics & Communication Engineering OR related technical field OR equivalent
- Dual degree program candidates must have completed 8th semester (entering final year of their dual degree program) in the aforementioned areas are also eligible to apply
- Minimum 6.5 CPI
- Have a passion for electric mobility and for automotive engineering
- Working knowledge of power electronics, eMachines, power distribution and control systems
- Exposure to Matlab/Simulink environments
- Proficient in Object Oriented Programming and excellent in C and C++

##### Basic knowledge of real-time operating system

- Basic software debugging skills
- Effective technical documentation skills
- Creativity and a willingness to learn
- Excellent technical and problem-solving skills
- Excellent communication and teamwork skills
- High level of self-motivation
- Only those who are currently in the final year of engineering OR who graduated in the current year can apply

##### Desirable:

- Ability to deliver presentations and efficiently communicate with both internal and external stakeholders
- Familiarity with eMachines and Power Electronics CAE tools incl. Magnetis FEA, Thermal Design, CFD, Matlab Simulink, PLECS, PSIM
- Familiarity with Instrumentation and measurement of power units
- Familiarity with Analog design, Design Process, Industry Standards.
- Familiar with EMI/EMC test standards and Test procedure
- SMPS Design and development

#### Personal Profile:

##### Essential:

- Demonstrated excellent academic and leadership during school and college education
- Electronics related experience during Internship
- Freely and proactively shares knowledge with others
- Demonstrated ability to meet goals and objectives.
- Displays a proactive willingness to volunteer for work elements / projects outside job scope where the individual can contribute, and it is a company priority
- Acts with freedom to take on and resolve technical challenges
- Flexibility to travel to other JLR / partner locations when required to assist in delivery of project objectives

<b>Expected No. of Hires:</b>	1
<b>Location(s)/Place of Posting/Online:</b>	Bengaluru
<b>Skillset:</b>	Electrical, Electronics
<b>Minimum CGPA:</b>	6.5
<b>Students with backlog eligible:</b>	No

## Selection Process

<b>Resume Shortlist:</b>	Yes
<b>Mode of Selection:</b>	Virtual
<b>Resume shortlisting before test?:</b>	No
<b>Test:</b>	Yes
<b>Mode of Test:</b>	Online
<b>Test duration (minutes):</b>	120
<b>Aptitude/Psycometric:</b>	Yes
<b>Technical:</b>	Yes
<b>Group Discussion:</b>	No
<b>Personal Interview:</b>	No
<b>Technical Round:</b>	Yes
<b>HR Round:</b>	No
<b>Medical Test:</b>	No

## Eligible Academic Programs

<b>Diversity Recruiting:</b>	No
<b>Eligible Years:</b>	Graduating in 2026 (Pre-Final Year Students) - B.Tech / Dual / Master's
<b>Eligible Departments:</b>	B.Tech in Electrical Engineering, B.Tech in Electrical Engineering (Power and Automation), B.Tech in Energy Engineering, B.Tech in Engineering Physics, B.Tech in Engineering and Computational Mechanics

## Stipend Details

<b>Stipend (per month) (In INR Per</b>	100,000 INR Per Month
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Month):

Accommodation: yes