

Job Notification Form, IIT Delhi

Company Overview

Name: Caterpillar India Private Limited

Website: <https://www.caterpillar.com/>

Company Type: Core (Technical)

Description: For nearly 90 years, Caterpillar Inc. has been making sustainable progress possible and driving positive change on every continent. Customers turn to Caterpillar to help them develop infrastructure, energy and natural resource assets. Caterpillar is the world's leading manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives. A lasting legacy of talented and committed employees give Caterpillar its competitive edge. It is our team that has allowed this company to accomplish great things. From the construction of the Hoover Dam, to facilitating communication for the Apollo moon-landing mission, to earthquake relief in Indonesia, our employees have never failed to give customers enduring results through superior service and innovation.

Job Details

Designation: Associate Engineer - VPD1

Type: Core (Technical)

Place of Posting: Chennai / Bangalore

Job Details:

Description

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Associate Engineer - Virtual Product Development

Position within Virtual Product Development Division within Caterpillar, which is responsible for virtual validation of Caterpillar products through simulation.

Candidate will be responsible for virtual validation of Caterpillar products using Finite Element Analysis (FEA), Computational Fluid Dynamics (CFD), Powertrain Performance, Multibody Dynamics (MBD) etc. simulation techniques to validate structural integrity, life of various engines/machine components by performing complex FEA/CFD and system level performance simulations and optimize design solution. This will be achieved through using commercial and in-house engineering software and processes. Team also develops engineering software for simulation.

Key Skill Sets:

- Knowledge of underlying theoretical principles of Mechanical Engineering.
- Sound understanding of Engine (IC and Gasturbines), transmission & machine

controls fundamentals, together with an appreciation of the related underlying theoretical principles

- Working knowledge and control principles for common mechanical systems
- Knowledge of controls and electromechanical system
- Courses in the following domain:

Vibration, Computer Aided Analysis, Strength of Materials, Internal Combustion Engines, Fluid Mechanics, Heat Transfer, Numerical Methods, Kinematics & Dynamics of Machinery, Turbomachinery, Advanced Thermodynamics, Basic Control System Theory, Battery Modeling, Fuel cells and Hydrogen Combustion

Preferred Skill Sets:

- Master's project using Finite Element Analysis / Computational Fluid Dynamics / Engine or Machine performance principles or any other relevant topics using simulation.
- Working knowledge of any FEA, CFD or System Simulation software
- Working knowledge of tools like Matlab, Simulink and (advanced) MS Excel.
- Knowledge in developing reduced order models for different applications

Key Competencies:

- Excellent Verbal and Written Communication Skills
- Self-starter with an inquisitive mind
- Ability to work in teams as well as independently
- Strong customer focus with ability to work closely and deliver timely support

Joining By: 1 June 2022

Salary Details

CTC:	1,164,277 INR Per Annum
Gross:	983,076 INR Per Annum
CTC Breakup:	Fixed - 10,52,737 Variable - 1,11,540
Perks / Bonus:	Group hospitalisation (self & dependents) - 5,00,000 Group personal accident coverage (self) - 27,62,748 Term Life Insurance coverage (self) - 27,62,748
Bond:	Yes

Selection Process

Resume Shortlist:	Yes
Written Test:	No
Online Test:	No
Group Discussion:	No
Medical Test:	No
Personal Interview:	Yes
No. of Rounds:	1

No. of 3
Offers:

Minimum CGPA: 6.5 and above with No current Arrears

Eligibility

Recruiting PHDs: Yes

Eligible Departments: B.Tech and M.Tech in Mathematics & Computing, M.Tech in Communications Engineering, M.Tech in Computer Technology, M.Tech in Control & Automation, M.Tech in Industrial Tribology & Maintenance Engineering, M.Tech in Integrated Electronics & Circuits, M.Tech in Power Electronics, Electrical Machines & Drives, M.Tech in Power Systems, M.S.(R) in Electrical Engineering