

Company :

Company Name :

Nature Of Business :

Designation :

Tentative Job Location :

Caterpillar India Private Limited

Caterpillar India Private Limited

Core/ Engineering/ Manufacturing

Associate Engineer - Controls development of Engines, Gensets and Advance systems

Bangalore/ Chennai

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.

Controls development for Engines, Gensets and Advanced systems

As an Associate Engineer, you will have the opportunity to learn from and contribute in a collaborative team environment in the area of design of new global products and processes. In this entry-level engineering position, you will build your technical expertise while learning product development through practical application and staying abreast of innovative technology. You will also build your professional network, engage with peers and receive guidance from mentors in the field.

Responsibilities:

In this role, you will also deepen your knowledge base of Caterpillar's products, technologies, processes, services and systems, which you will use to:

- Work on Controller development and selection
- i. Evaluate Controller requirements, identify subsystems and develop strategies
- ii. Model in Loop (MIL) Simulation & Hardware in Loop (HiL) validation
- i. Communicate results to customers, suppliers, team members, and other business units
- ii. Perform product and process maintenance

Description :

Requirements:

For Engine Controls (Mechanical):

- ii. Sound understanding of IC Engine fundamentals and working principle.
- i. Understanding of open & closed loop control system, controller requirements and calibration.
- i. Sound understanding of Engine Mechanical system components design like Air systems, Fuels systems, Exhaust Systems, etc
- ii. Working knowledge of MATLAB/Simulink
- i. Excellent Verbal and Written Communication Skills
- ii. Ability to work in teams as well as independently

For Gensets and Advanced systems Controls (Electrical/ Electronics):

- ii. Good background in power electronics
- i. Understanding of open & closed loop control system, controller requirements and calibration.
- i. Understanding of power, Alternate energy systems, power distribution systems and microgrids
- ii. Understanding of AC motor drives and inverter controls.
- ii. Working knowledge of MATLAB/Simulink
- i. Excellent Verbal and Written Communication Skills
- ii. Ability to work in teams as well as independently

Desirable:

- ii. Working knowledge of PSCAD for grid simulations.

Program	AE	BSBE	CE	CHE	CSE	EE	ES	ME	MSE	PHY	CHM	MTH	ECO	DES	IME	CGS	HSS	EEM	MSP	NET	PSE	Stats
BT	No	No	No	No	No	No	--	No	No	--	--	--	--	--	--	--	--	--	--	--	--	--
BS	--	--	--	--	--	--	No	--	--	No	No	No	No	--	--	--	--	--	--	--	--	--
MT	Yes	No	No	No	No	Yes	No	Yes	No	--	--	--	--	--	No	--	--	No	No	No	No	--
DoubleMajor	No	No	No	No	No	No	--	No	No	No	No	No	No	--	--	--	--	--	--	--	--	--
dual	Yes	No	No	No	No	Yes	No	Yes	No	No	No	No	No	--	--	--	--	--	--	--	--	--
dualB	Yes	No	No	No	No	Yes	--	Yes	No	No	No	No	No	--	No	--	--	No	--	No	No	--
dualC	Yes	No	No	No	No	Yes	No	Yes	No	No	No	No	No	No	No	--	--	--	--	--	--	--
Mdes	--	--	--	--	--	--	--	--	--	--	--	--	--	No	--	--	--	--	--	--	--	--
MBA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	No	--	--	--	--	--	--	--
Phd	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
MSc	--	--	--	--	--	--	--	--	--	No	No	No	--	--	--	--	--	--	--	--	--	No
MSR	Yes	No	No	No	No	Yes	--	Yes	No	--	--	--	--	--	--	No	--	--	--	--	No	--

Cost to Company :

Package Details :

Bond :

CPI CutOff :

INR 11,64,282 p.a.

Fixed payements - INR 10, 52,739 p.a.

True

0.0

Bond Details :	2 years; delinking with bond - 2 lakhs
Medical Requirments :	Will be shared with selected students
Resume Shortlist :	True
Resume Shortlist Criteria:	GPA and projects
Aptitude Test:	True
Aptitude Test Duration:	35 minutes
Group Discussion:	True
Group Discussion Duration:	30 mins
Group Discussion Strength:	8
Technical Test:	True
Technical Test Duration:	60 minutes
Technical Interview:	True
Technical Interview Duration:	30 minutes
Number of Techincal Interview Rounds:	2
HR Interview:	False
Additional Information:	Eligibility criteria - CGPA 6.5 and above. No current arrears