

JD -Firmware Design Engineer

A. Knowledge required

1. Having knowledge of power electronics topologies, AC-DC converter, DC to AC Inverter, single phase to three phase converter, Battery charger etc.
2. Firmware design & control hardware understanding.
3. Knowledge of software system testing.
4. Knowledge of various communication used in rolling stock
5. Knowledge of inverter, rectifier & charger software
6. Knowledge of DSP, Microcontroller, FPGA etc

B. Hands-on experience required

1. Power electronics firmware design in power electronics products for Railway rolling stock
2. C/C++ embedded software design, Linux etc
3. Software integration & testing knowledge
4. Control schematic knowledge
5. Firmware design for DSP controller, microprocessor, microcontroller, FPGA etc
6. Various communication protocols & design experience in CAN, RS232, RS485, USB, Ethernet, TCN, MVB , SPI, I2c etc.

C. Experience required:

5-10 years of experience in power electronics with 4 years in Rolling stock