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## **Electric Vehicle (EV) Power Electronics Research Scientist (RTC-AP-008)**

### **电动车工力电子**

Bosch Corporate Research and Advance Engineering in China is conducting in-depth research projects in technology fields which define the future business of Bosch in China and worldwide. We continuously offer opportunities for talented engineers and scientists to work on challenging research topics. We work in international teams of leading experts, using state-of-the-art equipment and know-how.

We are committed to driving the development of “New Energy Vehicles” in China by conducting fully localized R&D projects. In order to reinforce our EV team in Shanghai, we are now looking for a highly skilled Power Electronics Scientist.

#### **Job description**

- Pre-development of power electronics components, focus: new type of 3-phase inverter for an EV powertrain
- Simulation, evaluation and test of EV powertrain systems, subsystems and components
- Research in technology fields relevant for EV traction applications, especially identification of new trends and emerging technologies in China
- Management of research projects with internal and external partners (universities, research institutes and OEMs)

#### **Required knowledge, competencies and attributes**

- Ph.D degree in electrical engineering or comparable qualification which includes brilliant R&D accomplishments (Master degree)
- At least 3 years of experience in academic or industrial R&D in power electronics
- International experience and/or a focus on automotive applications preferred but not required

For the following two areas, very good theoretical knowledge of one plus some experience/knowledge of the other is required:

1. hardware design (inverter topologies, circuit design)
  2. software (e-motor control algorithms)
- Practical experience with design, simulation, rapid prototyping (RCP) and experimental validation (HIL)
  - Very good knowledge of the most recent technologies and concepts for circuit design and active and passive components
  - Know-how in packaging, mechanical design or heat management technologies a plus
  - Familiar with circuit design and system simulation tools such as Matlab/Simulink, Altium, PLECS and SABER (multi domain physical system simulation).
  - Initiative and ability to lead research projects
  - Demonstrated skill of finding creative technical solutions and new concepts for engineering challenges
  - Efficient, goal-oriented, structured working style, experienced in project work, habit to work according to plan
  - Systemic, interconnected way of thinking, strong interest in related research fields
  - High motivation for working towards e-mobility breakthroughs
  - Strong team worker
  - Very good communication skills, fluent in English (oral and written), good presentation skills