



Bachelor-/Master Thesis

Design and development of Embedded System for the application of wireless charging of e-scooter

▪ Location: Duisburg

▪ Job Id: 2021-MA-011

Project background:

Applications of wireless charging are rapidly increasing in number. At gapcharge, we work to develop innovative ideas to wirelessly charge electric vehicles, especially used in logistics. Solutions being developed have focus on greater reliability, higher efficiency and increased ease of use.

Topic of the master's thesis is to develop a smart embedded system for the application in wireless charging system. An intelligent algorithm should decide particular operating point of a charging station. This algorithm should be implemented via suitable micro-controller using UART/CAN/or similar protocol.

Your tasks:

- Within scope of this thesis, you will grasp the functionality of existing wireless charging system.
- You will define requirements and investigate possible approaches for embedded solution.
- You will design and develop the system using best suited approach.
- You will conclude your work with testing of system and related documentation.

Your qualifications:

- You are enrolled student in Electrical-/Embedded-/Computer Engineering or similar
- You have experience in embedded programming
- You are aware of protocols such as CAN, UART, etc.
- You are aware of inductive charging technology and have affinity towards future mobility

We offer:

- Opportunity to work in a young start-up
- Dynamic and international work environment
- Experience to deal with current technology trends

Are you interested?

We are looking forward to receiving your application including your cover letter, up-to-date resume, transcripts and next possible date to join.

Contact:

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