

LTE, LoRa, NB-IoT, 5G. All these technologies are frequently used in public news papers. 5G is considered a key technology for the realization of Industry 4.0. The highly reliable communication via 5G enables new applications. Especially in production environments companies are eager to learn more about 5G and the other technologies. You have to answer the question: Which communication technology best fits several IoT use cases?

Master thesis ,Communication technologies (5G, NB-IoT) for IoT Use Cases'

Tasks:

- Create technology profiles of current communication technologies (5G, LTE, LoRa, NB-IoT),
- Define communication requirements for use cases in production environments,
- Describe and define components for relevant technologies e.g. 5G (Network slicing, Edge computing, Smart cells, Massive MIMO, Full duplex),
- Match use case requirement types with presented technology profiles,
- Provide a application guide line to implement a company-specific communication infrastructure.

Qualification / profil:

- Student(s) from the fields of industrial engineering or mechanical engineering, data analytics and decision science,
- Independence and reliability,
- careful working methods,
- very good MS-Office and Citavi knowledge.

We offer:

- Complex and highly topical task whose results can be evaluated directly in a research project,
- · Topic that is used in practice,
- the possibility of flexible time management and independent working,
- constructive and continuous support through regular feedback loops in the form of on-site meetings.

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If you are interested, please send your documents (short cover letter, curriculum vitae, certificates, current excerpt of the grade sheet) in digital form to the e-mail address provided.