Modulbezeichnung (Kürzel)	IoT Data Processing (RNTZ)
Modulbezeichnung (eng.)	IoT Data Processing
Semester (Häufigkeit)	WPM (nach Bedarf)
ECTS-Punkte (Dauer)	5 (1 Semester)
Art	Wahlpflichtmodul
Sprache(n)	Englisch
Studentische Arbeitsbelastung	60 h Kontaktzeit + 90 h Selbststudium
Voraussetzungen (laut MPO)	
Empf. Voraussetzungen	Programmieren auf Bachelor-Niveau (z.B. in C++, Java, Python)
Verwendbarkeit	MII
Prüfungsform und -dauer	Studienarbeit
Lehr- und Lernmethoden	Seminar, Praktikum
Modulverantwortliche(r)	N. Streekmann

Qualifikationsziele

The students gain detailed knowledge about current architectures, methods, and technologies for the processing of large data sets as well as essential concepts of the Internet of Things. They are able to apply this knowledge in the context of concrete projects. They are capable of evaluating the practicality of current frameworks to real life problems and to assess future developments in this rapidly developing field.

Lehrinhalte

The module is designed to impart an overview of current data processing architectures (e.g. Lambda, Kappa, Dataflow) and frameworks, such as Storm, Spark, Beam and Flink. Furthermore it covers important application areas of IoT technologies. During the semester students will bring together the knowledge in these topics by applying data processing technology to concrete IoT projects.

Literatur

Kleppmann, M.: Designing Data-Intensive Applications, O'Reilly, 2017.

Lehrveranstaltungen		
Dozenten/-innen	**Titel der Lehrveranstaltung**	**SWS**
N. Streekmann, N. N.	IoT Data Processing	4