

Modulbezeichnung (Kürzel)	IoT Data Processing (ITDP)	
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	<p>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.</p>	
Lehrinhalte	<p>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.</p>	
Literatur	<p>Kleppmann, M.: Designing Data-Intensive Applications, O'Reilly, 2017.</p>	
Lehrveranstaltungen		
Dozenten/-innen	Titel der Lehrveranstaltung	SWS
N. Streekmann, N. N.	IoT Data Processing	4