Course title	Integrated thick-film circuits with assembly and bonding technologies
EDP designation	MECB412A
Person(s) responsible for the module	Prof. Dr. Olivier Schecker
Lecturer	Prof. Dr. Olivier Schecker / Matthias Bürkle M.Eng.
Classification (level)	*4th semester bachelor*
Recommended content requirements	-
Type	Lecture with laboratory work
Scope (SWS)	3
Scope (ECTS)	4
Workload (time hours)	-
Evaluation (grade; BE/NB)	Grade - examination
Turnus	Each semester
Teaching and examination language	English - parts can be done in German depending of students
Contents	Basic knowledge of monolithic, hybrid and SMD construction of circuits, substrate variants, substrate production, paste variants, paste production, rheology, procedure for layout production, screen variants, stencils, screen printing, racking, solvents, drying, burning, active and passive SMDs, assembly, soldering, bonding, DIEs, enclosures. Parallel to the lecture, the content is implemented in a laboratory.
Intended learning outcomes (competencies)	Basic knowledge of monolithic, hybrid and SMD construction of circuits, substrate variants, substrate production, paste variants, paste production, rheology, procedure for layout production, screen variants, stencils, screen printing, racking, solvents, drying, burning, active and passive SMDs, assembly, soldering, bonding, DIEs, enclosures. Parallel to the lecture, the content is implemented in a laboratory.
Teaching methods	☒Lecture ☒Group work ☐Exercises ☐Simulation ☐Video feedback ☒Other: practical work
Audit performance	
Notes	
Usability	Production areas for thick film structures, SMD and connecting technologies.