

Course: Energy Supply for Autonomous Microsystems
EDV-Bezeichnung: MECB611A
Lecturer: Prof. Dr.-Ing. Ulf Ahrend
Umfang (SWS/ECTS): 3 SWS / 3 CP
Turnus: each term
Mode: Lecture with integrated exercises
Language: English
<p>Content:</p> <p>Relevance and quantification of power consumption of autonomous microsystems; primary and secondary energy buffers; overview, characterization and design of relevant energy harvesting technologies: e.g. photovoltaic energy harvesting, thermal harvesting, kinetic harvesting; application in IoT devices and wireless sensor networks</p>
<p>Literature:</p> <ul style="list-style-type: none"> - Slides, lecture notes - Marc Belleville, Cyril Condemine, Energy Autonomous Micro and Nano Systems, Wiley-ISTE 2012, ISBN: 1848213573 - Stephen Beeby, Neil White, Energy Harvesting for Autonomous Systems, Artech House Publishers 2010, ISBN: 1596937181
<p>Grading:</p> <ul style="list-style-type: none"> - 1 graded final exam (90 min) or 3 graded midterms (with averaged grade)