



EEP - Development and Testing of Prototypes

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| Course number | 7249 |
| Hours per week: | 4 |
| ECTS: | 5 |
| Scheduled: | Every Winter and Summer Term |
| Format | Lecture and Lab The students may decide whether to perform the presentations and exams in German or English. |
| Examination: | Presentations and written report |
| Lecturer: | Prof. Dr. Kilian Hartmann, Prof. Dr.-Ing. Michael Mann |
| Objectives: | <p>Knowledge: The students know the development and testing of prototypes in theory and by examples in practice.</p> <p>Skills: The students independently acquire theoretical basics and methods. They command various planning tools, apply them in realization and analyze prototypes for errors methodically.</p> <p>Competences: The students build technological concepts in teams and evaluate them. Those concepts can be realized into prototypes. Prototypes are analyzed and optimized. Failures are analyzed methodically and potentials for solutions are generated.</p> |
| Contents: | <ul style="list-style-type: none">- Theory of project planning tools- Planning and building of prototypes- Testing and failure analysis of prototypes- Writing of project reports and presentations |
| Pre-requisites | none |
| Recommended Reading: | Depending on the current project: Engineering Design, A Systematic Approach: Gerhard Pahl, Wolfgang Beitz, Jörg Feldhusen, Karl-Heinrich Grote , ISBN: 978-1-84628-318-5 (Print) 978-1-84628-319-2 (Online) Das Ingenieurwissen: Entwicklung, Konstruktion und Produktion: Karl-Heinrich Grote, Frank Engelmann, Wolfgang Beitz, Max Syrbe, Jürgen Beyerer, Günter Spur ISBN: 978-3-662-44392-7 (Print) 978-3-662-44393-4 (Online) Pahl/Beitz Konstruktionslehre, Methoden und Anwendung erfolgreicher Produktentwicklung Jörg Feldhusen, Karl-Heinrich Grote ISBN: 978-3-642-29568-3 (Print) 978-3-642-29569-0 (Online) All books in the current edition. |