Lab Internships Faculty of Electrical Engineering and Computer Science

Topic:	Renewable Energy Systems
Areas/Study fields:	Electrical Engineering, Renewable Energy
Duration:	3-6 months
Deadline for applying:	February 15 for fall internship October 1 for spring internship
Supervisor:	Professor Dr.-Ing. Thorsten Völker
Abstract:	This internship provides an academically oriented and practice-based introduction to renewable Energy Systems. The focus is on the planning, application, and optimization of photovoltaic systems, energy storage solutions, and charging infrastructure for electric vehicles. In addition, the fundamentals and practical applications of solar thermal energy are covered. Participants will have the opportunity to combine theoretical knowledge with practical experience, thereby gaining a comprehensive understanding of sustainable energy systems. Involvement in ongoing research projects ensures exposure to highly current and relevant topics.
Tasks:	- Selection and design of photovoltaic systems - Analysis of energy storage solutions and energy management strategies - Modeling and simulation of renewable energy systems using Matlab/Simulink - Examination of solar thermal energy concepts and heat pump integration
Prerequisites:	- Good knowledge of Energy Systems - Basic knowledge of renewable Energy Systems - Some lab experience, esp. usage Measurement & Wiring of installations
Language requirements documents:	- English (C1)
Starting point:	October for fall internship April for spring internship Earlier/later beginnings may be possible, depending on professor's availability.
Credits:	6 ECTS
Salary:	None paid internship, HSB scholarship for none Erasmus students subject to availability. This will be announced on short term notice.