



Software Engineering

Lecture and Exercise

Winter Semester 2015/16

Prof. Dr.-Ing. Madjid Fathi

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M.Sc. Sisay Chala

Begin: October 22, 2015

Registration: Students should register in the first lecture

Time: Thursdays 14:00 – 18:00

Room: H-A 7117

Language: English

Topics:

SW Development Lifecycles, SW Project Management, SW Requirements Engineering, SW and Database Design, Programming, SW Testing & Quality Control

Contents:

What makes a software project succeed? It takes more than a good idea and a team of talented programmers. A project manager needs to know how to guide the team through the entire software project. **Software Project Management (SWPM)** is, therefore, the art and science of planning and leading software projects. It requires knowledge of the entire software development lifecycle from feasibility and requirements analysis to testing of the end product.

The goal of this course is to train Mechatronics and Engineering students for applying SWPM lessons in their future career by practicing a sample group project, and ultimately to improve their teamwork skills. The course consists of lectures with written exam, and exercise including certain project work with oral presentation and written report. The group project is based on an industry-oriented scenario in the field of production and maintenance engineering.

Literature:

- Software Project Management in a Changing World, G. Ruhe & C. Wohlin (Eds.), Springer, 2014.
- Software Engineering Design: Theory and Practice, C.E. Otero, CRC Press, 2012.
- Agile Project Management, J. Highsmith, 2nd Ed., Addison-Wesley, 2010.
- Applied Software Project Management, A. Stellman & J. Greene, O'REILLY, 2005.
- Software Project Management: A Unified Framework, W. Royce, Addison-Wesley, 1998.

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