

Eingeladener Vortrag:

Problem-Oriented and Project-Based Learning (POPBL) in Software Engineering

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Abstract

At Aalborg University (AAU) we have two software engineering programmes: bachelor and master. Both consist of modules (semesters) worth 30 ECTS credit points, where each module except the last consists of a problem-oriented, semester-long project and a number of courses. The projects are conducted in small student groups under a particular theme as defined in the curriculum and are often conducted in collaboration with industrial partners. The thesis project is, however, often conducted on an individual basis.

The semester project ranges from about 16 credits to 27 credits, and thus comprises the core study activity. The given courses within a module consist of 1-2 project supporting courses and 2-3 courses whose subjects are not tied to the semester theme.

This pedagogical scheme, which basically is applied to all bachelor's and master's programmes at AAU, has proven to be very effective, as dropout rates and completion times are significantly lower than under more traditional pedagogical schemes. Moreover, the Danish (software) industry prefers candidates from AAU over candidates from traditional Danish universities because they have good collaboration skills and can be effective from day one due to the similarity between the typical working style in industry and the POPBL study approach. Moreover, their theoretical skills are at least as good as candidates from classical universities.

Invited Speaker

Uffe Kjaerulff is an associate professor of Computer Science at Aalborg University (AAU). His area of research comprises probabilistic graphical models for decision making under uncertainty, comprising a key component in the broad area of research known as Uncertainty in Artificial Intelligence. He has been employed at AAU since 1990, and has extensive teaching experience under the POPBL paradigm. He has been Head of School of Science at AAU since 2005.