

A Project-Orientated Training Concept to Prepare Students for Systems Engineering Activities

Authors : Elke Mackensen

Abstract : Systems Engineering plays a key role during industrial product development of complex technical systems. The need for systems engineers in industry is growing. However, there is a gap between the industrial need and the academic education. Normally the academic education is focused on the domain specific design, implementation and testing of technical systems. Necessary systems engineering expertise like knowledge about requirements analysis, product cost estimation, management or social skills are poorly taught. Thus, there is the need of new academic concepts for teaching systems engineering skills. This paper presents a project-orientated training concept to prepare students from different technical degree programs for systems engineering activities. The training concept has been initially implemented and applied in the industrial engineering master program of the University of Applied Sciences Offenburg.

Keywords : educational systems engineering training, requirements analysis, system modelling, SysML

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