



119

## Finnish Graduate Feedback Survey Results: Employment and Competencies of the Newly Graduated M.Sc. Engineers and Architects

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**D**eveloping education demands willingness, long term commitment, decision making and cooperation. It must be based on accurate and comparable data and information. Graduation is a good time to gather feedback from graduates on their education, the competencies they have gained and how that relates to their career prospects. This information serves as a good tool when evaluating the quality of university education.

Academic Engineers and Architects in Finland TEK and four Finnish universities of higher engineering education conducted a joint feedback survey on national scale for M.Sc. graduates in engineering and architecture in 2011. The universities involved were the four schools of technology in Aalto University, Lappeenranta University of Technology, Tampere University of Technology and the Faculty of Technology at the University of Oulu. It is worth noticing that this graduate feedback survey covers 95 % of the

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Finnish M.Sc. graduates of technology making it a very extensive research. A total of 550 graduates, which is roughly 30 % of all annual graduates, participated in the survey. The main target of the feedback survey is to gather comparable information on the quality of the M.Sc. degrees, the competencies gained by the graduates and their employment after graduation.

It is common for the Finnish university students to work during studies. It is often debated whether or not this is recommendable and what are the impacts. The results of the feedback survey made in 2011 show that on average the M.Sc. graduates have 18 months of working life experience. From that, two thirds is related to the actual field of study.

The impact of working on study progress is two-fold; 38 % of graduates said working had slowed down the studies. However, 58 % felt working had no impact on the progress. According to the feedback, 90% of the students felt that the working life experience had improved their professional competencies. These include field specific know-how, adaptation of theory to practise, problem solving skills as well as communication and project skills. It seems that working experience had promoted the employment rate and quality of the graduates.

Already at the time of graduation, 95 % of the graduates had been employed to positions and responsibilities that responded well or moderately well to their M.Sc. degree. An interesting result is also that over 50 % of the graduates had been employed via the working life contacts. Work experience related to field of study should therefore be seen as an important channel of employment.

The changing demands of working life place new challenges for the content and methods of education. It is worth considering; could on-the-job-learning be better integrated and utilized for example in the adaptation of the important working life competencies?

In May 2012 a work seminar focusing on the utilization of the feedback survey results was organized by TEK and the participating universities. In addition to the survey results, themes discussed in the seminar were guidance in the early phases of study, career guidance and abilities for lifelong learning. Comparable data, shared experiences and best practices turned out to be the most valuable outcome of the feedback project. The cooperation between the parties involved was deepened. This cooperation alongside the collected feedback data and the outcome of the seminar serve as a good base for the work towards better engineering education.

The annual feedback survey, work seminar and a report of their results and outcomes are meant to form a long term, continuous entity. The target is not only to offer comparable data and develop engineering education in general, but also to provide a practical tool for the universities to deepen their cooperation. TEK provides the forum and acts as a coordinator of the survey. ■