

Employability of Software Engineering Graduates: A Study on Non-Technical Human Skills Requirements

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Technology has made a tremendous change in mankind and involvement of software engineers towards this transformation plays a significant role. To cater to this need, employable software engineers with sound academic background are essential. Sri Lankan software engineers are well equipped with academic and technical knowledge. However, according to the viewpoint in the industry their employability has been subjected to question, due to the lack of non-technical human skills (NTHS). (Ahmed, 2012) suggested that, excellent communication skills are an obvious requirement for a software engineer; furthermore team work, facing challenges, taking initiative, problem solving skills, assertiveness along with the leadership qualities are identified under NTHS.

To study this research problem a survey was conducted with software engineering undergraduates at the University of Kelaniya and interviews were conducted with key decision making personalities of prominent software developing companies in Sri Lanka. Data was collected by distributing a questionnaire where the target group size was fifty.

The undergraduates were asked to rate the given NTHS set, according to their interpretations of the expectations of the industry by the time they would start their careers. The same skill set was validated during interviews with the key decision making personalities. There is a significant gap between industry expectations from a software engineering graduate and undergraduates' view point on NTHS by the time they enter the industry.

The research finding concludes that there is a disparity between what industry expects and what institutes produce. Therefore, it is a timely need to produce employable graduates, who fit the industry. Moreover, these findings lead to

recommend that the current tertiary education needs to do a curriculum revision to produce employable software engineering graduates. However, responsibility is not restricted to tertiary education providers but also to primary and secondary education providers. Some of the identified NTHS need a considerable time to develop. Therefore, the limited time spent at the university is not sufficient and due to this reason, students should be put on the correct path at an early stage in life.

Key words: *Curriculum revision, Employability, Non-technical human skills.*