

## Graduate Software Engineering Education: Adapting for the BSSE?

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In the United States, university level software engineering education started at the graduate level. Early programs such as the University of Seattle, and the Wang Institute were Master's degree programs. Throughout the 1980's the number of graduate programs expanded as the efforts of the Software Engineering Institute and other factors encouraged to this growth. These graduate programs serve students with little or no formal education in software engineering. Instead, the programs typically require some level of computer science education and commercial software development experience.

In recent years, the U.S. landscape has changed, as the number of undergraduate software engineering degree programs has grown from zero to the mid-twenties in the last eight years. The impact of ABET accreditation plus the expected finalization of the CCSE curriculum volume should help foster continued growth. The U.S. programs join an extensive group of programs in other countries where the development of BSSE programs started earlier and has proceeded more rapidly. Worldwide there are currently over 50 undergraduate software engineering programs.

As the number of undergraduate software engineering programs increases, what does this imply about the future role of graduate programs in software engineering? This panel will explore changes that may be required to existing graduate software engineering programs to adapt to the increasing number of undergraduates with bachelor's degrees in software engineering entering graduate software engineering programs. In particular, the questions the panel will consider include:

- How should graduate software engineering programs adapt to accommodate the arrival of students with BSSE degrees?
- Should graduate software engineering curricula change because of the growth in BSSE programs, and, if so, how?
- Should a BSSE degree substitute for the industry experience requirement commonly used in MSSE programs?
- Will graduate software engineering education still have value in industry for a BSSE graduate? What is the role of post-baccalaureate certificate programs in relation to graduate software engineering degree programs?
- How does the arrival of accreditation for software engineering impact graduate software engineering education?

The panel participants have experience with both undergraduate and graduate software engineering education delivered in both degree and certificate programs. The panel has also been organized to include perspectives from the U.S. and Europe as well as a perspective from industry.