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Norman E. Gibbs (Ed.)



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Preface

These proceedings are a record of two events held in Pittsburgh, Pennsylvania as part of the SEI Software Engineering Education and Training Week July 18–21, 1989. The first section includes the refereed papers presented at the *Third SEI Conference on Software Engineering Education* and the SEI Education Program's annual revised report on Master of Software Engineering curriculum recommendations. The second part contains unrefereed position papers submitted by participants in the *SEI Workshop on an Undergraduate Software Engineering Curriculum*.

The Software Engineering Institute (SEI) is a federally funded research and development center sponsored by the United States Department of Defense and operated by Carnegie Mellon University. Part of its mission is to increase the supply of qualified software engineers. The SEI Education Program addresses this need by encouraging the establishment of academic, industry, and government software engineering programs and by developing and promoting an infrastructure to support the exchange of information about software engineering education.

The annual *SEI Conference on Software Engineering Education*, which brings together educators from universities, industry, and government to discuss problems and issues of mutual interest, is an important part of this infrastructure. Its goals are to stimulate new educational approaches, to provide a forum for discussions of mutual problems, and to evaluate promising new ideas.

This year's conference is the third in the series. The Program Committee received more than forty papers, each of which was refereed by three or more committee members. Fifteen papers were accepted for presentation and publication in these proceedings. Five papers deal with industry issues and programs, three with teaching software maintenance, and three with undergraduate software engineering education. The remaining four address other related topics in software engineering education.

The Program Committee for the 1989 Conference included the following members:

Alan Adamson, *IBM*
Mark Ardis, *SEI*
Jon Bentley, *AT&T Bell Labs*
Daniel Berry, *Technion*
Alfs Berztiss, *University of Pittsburgh*
John Brackett, *Boston University*
Maribeth Carpenter, *SEI*
Clyde Chittister, *SEI*
Rick Cobello, *General Electric*
James Collofello, *Arizona State University*
Lionel Deimel, *SEI*
Charles Engle, *SEI*
Richard Fairley, *George Mason University*
Peter Feiler, *SEI*
Robert Firth, *SEI*

Gary Ford, *SEI*
Susan Gerhart, *MCC*
Norman Gibbs, *SEI*
Hassan Gomaa, *George Mason University*
John Goodenough, *SEI*
Harvey Hallman, *SEI*
David Lamb, *Queen's University*
John Maher, *SEI*
H. Dieter Rombach, *University of Maryland*
Rebecca Smith, *Hewlett-Packard*
Scott Stevens, *SEI*
James E. Tomayko, *The Wichita State University*
Nelson Weideman, *SEI*
David Weiss, *SPC*

The *SEI Workshop on an Undergraduate Software Engineering Curriculum* was conducted to address a broad range of issues related to the establishment of undergraduate degree programs in software engineering. Participants were asked to submit position papers on relevant topics, such as the feasibility, desirability, or content of such programs. Twelve papers (not formally refereed) were selected for inclusion in these proceedings.

Norman E. Gibbs

Pittsburgh, Pennsylvania
April 1989

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