

Preface

CMCE 2015 is the 1st International Workshop on Case Method for Computing Education held in conjunction with the 22nd Asia-Pacific Software Engineering Conference (APSEC 2015) New Delhi, India - 1st December 2015. The workshop aims at bringing together educators, researchers and practitioners to discuss and share experience on the application of case method pedagogy for effectively teaching technology oriented computing education.

Faculty teaching computing courses face the difficult challenge of how to prepare students for the real world of computing practice. It is essential to teach concepts and principles but at the same time one has to somehow translate this directly into real-world activity, for example, in software engineering discipline, how to design, develop and maintain software solutions. Case teaching method provides a number of benefits to enhance student learning through “interactive pedagogy” by stimulating critical thinking and problem solving skills and by creating reasonably realistic replicas of actual situations--which include incomplete information, time constraints, and conflicting goals. The case method uses two elements namely the case, and a set of activities related to that case. The case is a rich narrative that provides detailed information about a situation in which an individual or group must make a decision or solve a problem. Though some faculty have used case method for teaching computing courses, there has been no concerted effort by the professional computing communities to promote this pedagogy.

Case method has been successfully applied in teaching other professions including law, medicine and business. Though there is great pedagogical value in case method, computing has not fully leveraged this method for teaching. One of the main reasons for this is the lack of cases and a repository where faculty can search and find useful cases. Another is the fact that there is very little written and sharing among faculty on how to use cases when teaching technology oriented topics such as software engineering, programming, solution architecture, etc.

Hence the main goals of the workshop are to gather academics and practitioners who are keen to research and apply the case method pedagogy in computing education, and subsequently contribute to the development of a case repository and set of practical tips on how case method can be incorporated into the different computing courses.

Following were some of the topics of interest for the workshop:

- Lessons learnt in application of case method
- Pedagogical theories relevant to case method
- Challenges with teaching technical computing content
- Teaching cases for computing education
- Architecture and tools for creating a case repository
- Experience reports on collaborating with industry in delivering computing education
- Experience reports from IT industry on the use of real world cases in training their professionals

Organizers

1. Prof. Emanuel Grant
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2. Prof Venky Shankararaman
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Program Committee

- Patrick S. Dallas, Ph.D. Convergent Tech. Ltd., Jamaica.
- Hubert A. Johnson, Ph.D. MSU, USA.
- Devon M. Simmons, Ph.D. UNC, USA.
- Thomas Stokke, Ph.D. (ABD) UND, USA.
- Sean Thorpe, Ph.D. UTech, Jamaica.
- Sagini J. Keengwe, Ph.D., UND, USA.
- Washington I Helps, M.S., Thompson Reuters, USA.
- Wilson D. Concepcion, M.S. HAU, Philippines.

Table of Contents

CMCE 2015 received 5 papers which were peer-reviewed. The Program Committee accepted 5 papers.

1. Teaching by Case Method in Computing Education
Venky Shankararaman
2. Anukarna: A Software Engineering Simulation Game for Teaching Practical Decision Making in Peer Code Review
Ritika Atal and Ashish Sureka
3. A Case Study on Teaching Software Engineering Concepts using a Case-Based Learning Environment
Kirti Garg, Ashish Sureka and Vasudeva Varma
4. A Case Study based Software Engineering Education using Open Source Tools
Sowmya B J, Srinidhi Hiriyannaiah, K.G. Srinivasa
5. Case Method for Computing Education (CMCE): A Strategy for Teaching Software Engineering
Emanuel S. Grant