Message from the Doctoral Symposium Co-Chairs

It is a pleasure and an honor for us to welcome you to the 11th International Conference on Global Software Engineering. ICGSE continues to provide a forum for researchers and practitioners to discuss challenges that face the software engineering community and the advancements that have been made in developing large-scale software systems using geographically distributed software development teams.

This year, we are pleased to run a doctoral symposium in which Ph.D. students present their work on foundations, techniques, methods and tools in the area of Global Software Engineering (GSE). The doctoral symposium provides participants with an opportunity to present and discuss their research with senior researchers of the Global Software Engineering community in a constructive atmosphere. Experts in GSE provide students with feedback on their research, allowing students to ask questions about how they can overcome obstacles, enhance their current research proposals, or prepare for their thesis defense.

In the doctoral symposium 2016, we selected five research proposals for inclusion:

Mohammad Abdur Razzak: *An empirical study on lean and agile software development*

This research project aims to improve the understanding of how lean and agile practices can scale. In particular, this research addresses the need to integrate different work practices from the traditional and the lean/agile work. A better understanding of those practices shall facilitate the management of distributed projects.

Alberto Castro-Hernández: *Content and temporal analysis of communications to predict task cohesion in software development global teams*

This research project studies interaction-based measures and their ability to predict cohesion within global software development projects. Content features based on communication categories, found in virtual learning teams, will be used to improve the identification of a task cohesion level thus optimizing task allocation in distributed development settings. The research aims at providing sophisticated prediction capabilities for team-task setups in global software development.

Gilberto Borrego: *Condensing architectural knowledge from unstructured textual media in agile GSD teams*

This research project aims at better understanding the phenomenon of vaporizing architectural knowledge and introducing technical debt in agile global software engineering. As different ways of handling project documentation are considered a key problem, in this research, architectural knowledge recorded in unstructured textual media is exploited with the purpose to help improving software evolution and maintenance by improving the use and management of architectural knowledge.
Eunyoung Moon: Do open projects “break the mirror”? Re-conceptualization of organizational configurations in Free/Libre Open Source Software (FLOSS) development

Exploiting the close relationship between Global Software Engineering and Free/Libre Open Source Software (FLOSS) practices, this thesis examines the co-ordination overhead of multi-site development. The “mirroring hypothesis” that holds when products and the organizations that create them have structures that mirror each other, is revisited. Lessons are learned through a multiple case study of FLOSS projects that appear to be successful even when violating this principle, “breaking the mirror” when loosely-coupled FLOSS contributors develop tightly-coupled systems.

Waqar Hussain: Requirements Change Management in Global Software Development: A Multiple Case Study

This thesis reports a comprehensive investigation of the challenges encountered in managing requirements change and investigates the associated role of collaborative technologies (CTs) in Global Software Development (GSD). Through an examination of the literature and conducting a multiple case study, a conceptual requirements change management (RCM) process model is developed. The model captures informal requirements in change management to include eight new challenges faced by those responsible for managing requirements change in GSD. Furthermore, while the research findings confirm the adequacy of CTs, several obstacles are also identified.

We hope you find these research projects as exciting as we do, and we look forward to see these research projects evolve and producing exciting results.

Doctoral Symposium Co-Chairs
Marco Kuhrmann
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