2018 IEEE/ACM 13th International Conference on Global Software Engineering (ICGSE 2018)

Gothenburg, Sweden 27 May – 3 June 2018



IEEE Catalog Number: ISBN:

CFP18ICG-POD 978-1-5386-6168-0

Copyright © 2018, Association for Computing Machinery (ACM) **All Rights Reserved**

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

CFP18ICG-POD IEEE Catalog Number: ISBN (Print-On-Demand): 978-1-5386-6168-0 ISBN (Online): 978-1-4503-5717-3

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: (845) 758-0400 (845) 758-2633

Fax: E-mail: Web: curran@proceedings.com www.proceedings.com



2018 ACM/IEEE 13th International Conference on Global Software Engineering ICGSE 2018

Table of Contents

Message from ICSE 2018 General Chair ix	
Message from ICGSE 2018 General and Program Co-Chairs xii	
Organizing Committee xiv	
Program Committee: Research Track xvi	
Steering Committee xviii	
ICGSE 2018 Sponsors xix	
Academic Keynote xx	
Industry Keynote .xxi	
ICSE 2018 Sponsors and Supporters xxii	
Transitioning from Plan-Driven to Lean in a Global Software Engineering Organization: A Practice-Centric View .1.	
Roopa M. S. (Siemens Healthcare Private Limited), Ratnanabh Kumar (Siemens Healthcare Private Limited), and V. S. Mani (Siemens Healthcare Private Limited)	
Effective Distributed Pair Programming .6. Mark Rajpal (Agile Global Results)	

ICGSE 2018 - Communication and Collaboration in Distributed Projects

nst Meets West: Global Software Engineering Course in Japan and Germany 25. Daniel Moritz Marutschke (College of Information Science and Engineering Ritsumeikan University), Victor V. Kryssanov (College of Information Science and Engineering Ritsumeikan University), and Patricia Brockmann (Computer Science Department Technical University Nuremberg Georg Simon Ohm)
fective Collaboration across the Globe through Digital Dash Boards and Machine Learning 30
oftware Engineering Tools Environment for Outsourcing Teams Collaboration .35. Marcia Cristina de C. Costa (Samsung R&D Institute Brazil - Campinas - SP), Gizelle S. Lemos (Samsung R&D Institute Brazil - Campinas - SP), and Flavio Beck (Samsung R&D Institute Brazil - Campinas - SP)
CGSE 2018 - Processes for Distributed Development
Process for Distributed Software Evolution 39 Joao Ricardo M. Camilo (Federal University of Technology – Parana (UTFPR)), Alexandre L'Erario (Federal University of Technology – Parana (UTFPR)), Tiago Pagotto (Federal University of Technology – Parana (UTFPR)), and Jose Augusto Fabri (Federal University of Technology – Parana (UTFPR))
Dean Knudson (North Dakota State University), Stavros Kalafatis (Texas A & M University), Carsten Kleiner (Hannover University of Applied Sciences & Arts), Stephen Zahos (University of Illinois at Urbana-Champaign), Barbara Seegebarth (Technische Universität Braunschweig), Jonas Deeterfelt (Linkoping University), Iman Avazpour (Deakin University), Kristian Sandahl (Linkoping University), Peter Gorder (University of Colorado), Jeewani Ginige (Western Sydney University), Alex Radermacher (North Dakota State University), Hugo Caballero (Universidad del Norte), Humberto Gomez (Universidad del Norte), and Mikael Roos (Blekinge Institute of Technology)
CGSE 2018 - Scaled and Distributed Agile
nhancing Product and Service Capability Through Scaling Agility in a Global Software Vendor nvironment 54
anaging Software Products in a Global Context .64. Christof Ebert (Vector Consulting Services)
nallenges in Scaling up a Globally Distributed Legacy Product: A Case Study of a Matrix rganization 72

Employee Retention and Turnover in Global Software Development: Comparing In-House Offshoring and Offshore Outsourcing 77.
Julian M. Bass (University of Salford), Beecham Sarah (Lero - The
Irish Software Research Centre), Mohammed Abdur Razzak (Mohammed Abdur
Razzak), and John Noll (University of East London)
ICGSE 2018 - Distinguished Papers
On Developers' Personality in Large-Scale Distributed Projects: The Case of the Apache Ecosystem .87
Virtual by Design: How a Work Environment can Support Agile Distributed Software Development .9.7 Pernille Lous (IT University of Copenhagen), Paolo Tell (IT University of Copenhagen), Christian Bo Michelsen (IT University of Copenhagen),
Yvonne Dittrich (IT University of Copenhagen), Marco Kuhrmann (Clausthal University of Technology), and Allan Ebdrup (Debitoor)
Team Resilience in Distributed Student Projects .107
Scaling Agile across the Global Organization: An Early Stage Industrial SAFe Self-Assessment .1.16
Poster Exhibition
Compliance Adherence in Distributed Software Delivery: A Blockchain Approach .126
A SCRUM-Based Process to Distributed Projects in Multidisciplinary Teams: A Case Study .128
An Empirical Study on Scrum Application Patterns in Distributed Teams .130
Doctoral Symposium
A Preliminary Structure of Software Security Assurance Model 132

Scaling Agile Software Development to Large and Globally Distributed Large-Scale Organizations .136 <i>Abheeshta Putta (Aalto University)</i>
Toward a Theory of Communication in Distributed Software Development Teams: A Research Proposal .140 Nelson Leitão Júnior (Federal University of Pernambuco)
Author Index 145