

**2018 IEEE/ACM 10th  
International Workshop on  
Modelling in Software  
Engineering (MiSE 2018)**

**Gothenburg, Sweden  
27 May – 3 June 2018**



**IEEE Catalog Number: CFP1898C-POD  
ISBN: 978-1-5386-6183-3**

**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.***

IEEE Catalog Number:	CFP1898C-POD
ISBN (Print-On-Demand):	978-1-5386-6183-3
ISBN (Online):	978-1-4503-5735-7
ISSN:	2575-4467

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# 2018 ACM/IEEE 10th International Workshop on Modelling in Software Engineering MiSE 2018

## Table of Contents

Message from the ICSE 2018 General Chair	vii
Message from the MiSE 2018 Chairs	x
Organizing Committee for MiSE 2018	xi
Program Committee for MiSE 2018	xii
ICSE 2018 Sponsors and Supporters	xiii

## Requirements

Visualizing Evolving Requirements Models with TimedURN	1
<i>Sahil Luthra (McGill University), _ Aprajita (McGill University), and Gunter Mussbacher (McGill University)</i>	
A UML-Based Proposal for IoT System Requirements Specification	9
<i>Gianna Reggio (Università di Genova)</i>	
Detailed Use Case Points (DUCPs): A Size Metric Automatically Countable from Sequence and Class Diagrams	17
<i>Kan Qi (University of Southern California) and Barry Boehm (University of Southern California)</i>	

## Synthesis and Extraction

Extraction of Probabilistic Behaviour Models Based on Contexts	25
<i>Lucio Mauro Duarte (Federal University of Rio Grande do Sul), Paulo Henrique Mendes Maia (State University of Ceará), and Ana Carolina Sanchotene Silva (Federal University of Rio Grande do Sul)</i>	
UML Diagram Synthesis Techniques: A Systematic Mapping Study	33
<i>Damiano Torre (Carleton University and University of Castilla-La Mancha), Yvan Labiche (Carleton University), Marcela Genero (University of Castilla-La Mancha), Maria Teresa Baldassarre (University of Bari Aldo Moro), and Maged Elaasar (Carleton University)</i>	

## UML and Applications

Integrating Semantically-Related Legacy Models in Vitruvius .41.....	
<i>Manar Mazkatli (Karlsruhe Institute of Technology), Erik Burger (Karlsruhe Institute of Technology), Jochen Quante (Robert Bosch GmbH), and Anne Koziolk (Karlsruhe Institute of Technology)</i>	
Building Domain-Specific Modelling Environments with Papyrus: An Experience Report .49.....	
<i>Guillaume Dupont (Concordia University), Sadaf Mustafiz (Concordia University), Ferhat Khendek (Concordia University), and Maria Toeroe (Ericsson Inc.)</i>	
StreamGen: A UML-Based Tool for Developing Streaming Applications .57.....	
<i>Michele Guerriero (Politecnico di Milano), Alessandro Nesta (Politecnico di Milano), and Elisabetta Di Nitto (Politecnico di Milano)</i>	

## Evaluation

Improving Model Usability and Utility by Layered Diagrams .59.....	
<i>Harald Störrle (QAware GmbH)</i>	
Metric-Based Evaluation of Multiagent Systems Models .67.....	
<i>Lidiane Damasceno (Universidade do Estado do Rio de Janeiro), Vera Maria B. Werneck (Universidade do Estado do Rio de Janeiro), and Marcelo Schots (Universidade do Estado do Rio de Janeiro)</i>	

<b>Author Index</b> .75.....	
------------------------------	--