



كلية العلوم
السملالية - مراكش
FACULTÉ DES SCIENCES
MARRAKECH - SEMLALIA



8th International Conference on Model and Data Engineering (MEDI 2018)

24 - 26 October 2018, Marrakesh, Morocco

WORKSHOPS-MEDI 2018

DETECT International Workshop on modeling, verification and testing of dependable critical systems

IWCFS 2nd International Workshop on Cybersecurity and Functional Safety in Cyber-Physical Systems

REMEDY International Workshop: formal model for Multifaceted systems

MEDI4SG Model and Data Engineering for Social Good Workshop

Program & Events



EMERGING
BUSINESS
Factory



Tuesday October 23, 2018

14h00-21h00: Welcome reception and Registration

Wednesday October 24, 2018

08:30 Welcome reception and Registration

08:30 - 09:00 Opening Conference (Room I)

09:00 - 10:00 Keynote: Professor Georg Gottlob, Oxford University, UK (Room I)
Session Chair: Prof. Ladjel Bellatreche, ISAE-ENSMA, Poitiers, France

Data Science with Vadalog: Bridging Machine Learning and Reasoning

Luigi Bellomarini, Ruslan Fayzrakhmanov, **Georg Gottlob**, Andrey Kravchenko, Eleonora Laurenza, Yavor Nenov, St'ephane Reissfelder, Emanuel Sallinger, Evgeny Sherkhonov and Lianlong Wu

10:10 – 10:30 Coffee Break

10:30 - 12:30 DETECT Workshop - Session I (chair: PDA) (Room II)
Petri Nets to Event-B: Handling Mathematical Sequences through an ERTMS
L3 Case

Zakaryae Boudi, Simon Collart-Dutilleul and Haloua Mohamed

A Problem-Oriented Approach to Critical System Design and Diagnosis Support.

Vincent Leildé, Vincent Ribaud, Ciprian Teodorov and Philippe Dhaussy

Formal Verification of Cloud Resource Allocation using Timed Petri Nets

Saoussen Cheikhrouhou, Nesrine Chabbouh, Slim Kallel and Zakaria Maamar

10:30 - 12:30 IWCFS Workshop – Keynote (chair: PDA) (Room III)
Welcome note

Atif Mashkour, Johannes Sametinger, Xabier Larrucea

Invited talk: A Roadmap for Engineering Safe and Secure Cyber-Physical Systems

Alexander Egyed

12:30 – 14:00 Lunch Break

14:00 - 15:30 DETECT Workshop - Session II (chair: PDA) (Room II)
Steady-State Performability Analysis of Call Admission Control in Cellular
Mobile Network

Sana Younes and Maroua Idi

A MDA approach for the Specification of Relay-Based Diagrams

Dalay Israel de Almeida Pereira, Ouahmed Malki, Philip Bon, Matthieu Perin and Simon Collart-Dutilleul

Model-Based Verification and Testing Methodology for Safety-Critical Airborne Systems

Mounia Elqortobi, Warda El-Khouly, Amine Rahj, Jamal Bentahar and Rachida Dssouli

14:00 - 15:30 **IWCFS Workshop - Session I** (chair: PDA) **(Room III)**
**Handling Reparation in Incremental Construction of Realizable
Choreographies**

Sarah Benyagoub, Yamine Ait-Ameur, Meriem Ouederni and Atif Mashkoor

Analyzing a ROS Based Architecture for its Cross Reuse in ISO26262 Settings
Xabier Larrucea, Pablo González-Nalda, Ismael Etxeberria-Agiriano, Mari Carmen Otero and
Isidro Calvo

**Towards a Requirements Engineering Approach for Capturing Uncertainty in
Cyber-Physical Systems Environment**
Manzoor Ahmad, Christophe Gnaho, Jean-Michel Bruel and Régine Laleau

15:30 – 16:00 **Coffee Break**

16:00 - 18:30 **REMEDY Workshop** (chair: Christian Attiogbé) **(Room II)**
Automatic planning: From Event-B to PDDL

Sabrine Ammar and Mohamed Tahar Bhiri

Reliability on Fully Probabilistic Event-B: How Bound the Enabling of Events
Syrine Aouadi and Arnaud Lanoix

Component design and adaptation based on behavioral contracts
Samir Chouali, Sebti Mouelhi and Hassan Mountassir

Systematic Construction of Critical Embedded Systems using Event-B
Pascal André, Christian Attiogbe and Arnaud Lanoix

Towards real-time semantics for a distributed event-based MOP language
Luis Daniel Benavides Navarro, Wilmer Garzon and Mateo Sanabria

16:00 - 18:30 **IWCFS Workshop - Session II** (chair: PDA) **(Room III)**

Hybrid Systems and Event-B: A Formal Approach to Signalised Left-Turn Assist
Guillaume Dupont, Yamine Ait Ameur, Marc Pantel and Neeraj Singh

**Assessment of Emerging Standards for Safety and Security Co-Design on a
Railway Case Study**
Christophe Ponsard, Jeremy Grandclaudon, Philippe Massonet and Mounir Touzani

**Generation of Behavior-Driven Development C++ Tests from Abstract State
Machine Scenarios**
Silvia Bonfanti, Angelo Gargantini and Atif Mashkoor

Discussion & Conclusion

18:30 - ... **Social Event around Marrakech & Dinner**



Thursday October 25, 2018

17:00 - 18:30 **MEDI4SG** (chair: PDA)

(Room I)

Gamification and serious games based learning for early childhood in rural areas

Rachid Lamrani, El Hassan Abdelwahed, Souad Chraibi, Sara Qassimi and Meriem Hafidi

Context-Based Sentiment Analysis: A survey

Oumayma El Ansari, Jihad Zahir and Hajar Mousannif

A Multi-Agent System-Based Distributed Intrusion Detection System for a Cloud Environment

Omar Achbarou, My Ahmed El Kiram, Outmane Bourkougou and Salim Elbouanani

Workshops Schedule and Events

Tuesday October 23, 2018	Wednesday October 24, 2018		Thursday October 25, 2018
	08H30-09H00	Welcome Reception - Opening	
	09H00-10H00	Keynote: Professor Georg Gottlob Room I	
	10H00-10H30	Coffee Break	
	10H30-12H30	DETECT – S1 Room II	IWCFS Keynote Room III
	12H30-14H00	Lunch Break	
Welcome Reception - Opening	14H00-15H30	DETECT – S2 Room II	IWCFS – S1 Room III
	15H30-16H00	Coffee Break	
	16H00-18H30	REMEDY Room II	IWCFS – S2 Room III
	19H00-...	Social Event Around Marrakech & Dinner	
			Coffee Break
			MEDI4SG Room I