



**10th Cloud Control Workshop**  
**Feb 27 - Mar 1, 2017**

# Monday February 27<sup>th</sup>

10:00 – 10:30	Coffee
10:30 – 11:00	<i>Workshop introduction</i> Erik Elmroth, Umeå University, Sweden
11:00 – 11:15	<i>Presentation of the workshop program</i> P-O Östberg, Umeå University, Sweden
11:15 – 11:30	<i>MPC over the Cloud - Problem Definition</i> Karl-Erik Årzén, Lund University, Sweden
11:30 – 11:45	<i>Secret sauce for DDC - Research Questions</i> Amir Roozbeh, KTH/Ericsson Research, Sweden
11:45 – 12:00	<i>Ultra Reliable Communication with Massive MIMO</i> William Tärneberg, Lund University, Sweden
12:00 – 12:15	<i>Blackbox approach for diagnosing correlated anomalies in virtualized environments</i> Olumuyiwa Ibidunmoye, Umeå University, Sweden
12:15 – 13:15	Lunch
13:15 – 13:30	<i>ACTiCloud: Enabling the Next Generation Cloud Applications</i> Ewnetu Bayuh Lakew, Umeå University, Sweden
13:30 – 13:45	<i>Reliable Capacity Provisioning and Enhanced Remediation for Distributed Cloud Applications (RECAP)</i> P-O Östberg, Umeå University, Sweden
13:45 – 14:45	Discussion session Discussion #1 <i>5G and Future Challenges</i> Discussion leaders: Amardeep Mehta, William Tärneberg Discussion #2 <i>The roles of machine learning and control theory for cloud control applications</i> Discussion leader: Anders Robertsson
14:45 – 15:00	Summary of discussion session
15:00 – 15:30	Coffee
15:30 – 18:30	Team Building activity: Cross-country skiing
18:30 – 20:00	Dinner
21:00 – 21:30	Cheese and crackers

# Tuesday February 28<sup>th</sup>

8:30 – 8:45	<i>Resource Management for Camera Systems</i> Gautham Nayak Seetanadi, Lund University, Sweden	
8:45 – 9:00	<i>Model Checking and Verification of Resource Management Algorithms</i> Martina Maggio, Lund University, Sweden	
9:00 – 10:00	Joint work: time for spontaneous meetings about ongoing collaborations	
10:00 – 10:30	Coffee	
10:30 – 10:45	<i>Fog and Edge computing</i> Alessandro V. Papadopoulos, Mälardalen University, Sweden	
10:45 – 11:00	<i>Introduction to Management Challenges for Software Defined Infrastructures</i> Erik Elmroth, Umeå University, Sweden	
11:00 – 12:00	Discussion session Discussion #3 <i>Fog and Edge computing</i> Discussion leader: Alessandro V. Papadopoulos	Discussion #4 <i>Management Challenges for Software Defined Infrastructures</i> Discussion leader: Erik Elmroth
12:00 – 12:15	Summary of discussion session	
12:15 – 13:15	Lunch	
13:15 – 13:30	<i>Dynamic control of NFV forwarding graphs with end-to-end deadline constraints</i> Victor Millnert, Lund University, Sweden	
13:30 – 13:45	<i>Cascaded control for differentiated cloud services</i> Tommi Nylander, Lund University, Sweden	
13:45 – 14:45	Discussion session Discussion #5 <i>Service Chaining</i> Discussion leader: Victor Millnert	Discussion #6 <i>Mission Critical Cloud Infrastructure</i> Discussion leader: Tommi Nylander
14:45 – 15:00	Summary of discussion session	
15:00 – 15:30	Coffee	
15:30 – 17:30	<i>Calvin Tutorial and hands on session</i> (short intro to Calvin, in-depth CalvinScript, overview of CalvinConstrained, ProxyRuntimes, Storage, Replication, Scaling, introduction to RPi and Calvin) Per Persson, Ericsson Research, Sweden	
17:30 – 18:30	Discussion about Calvin: how can we use it and what can we build	
18:30 – 20:00	Dinner	
21:00 – 21:30	Cheese and crackers	

# Wednesday March 1<sup>st</sup>

8:30 – 8:45	<i>The experience of evaluating a scheduling algorithm through simulation</i> Gonzalo Rodrigo, Umeå University, Sweden		
8:45 – 9:00	<i>Adaptive learning in various types of task scheduling</i> Mashid Helali, University of Kashan, Iran		
9:00 – 10:00	Joint work: time for spontaneous meetings about ongoing collaborations		
10:00 – 10:30	Coffee		
10:30 – 10:45	<i>Overview of event-based control / Event-Based Server Control</i> Anton Cervin, Lund University, Sweden		
10:45 – 11:00	<i>State of the art on Resource Disaggregation</i> Amir Roozbeh, KTH/Ericsson Research, Sweden		
11:00 – 12:00	Discussion session <table><tr><td>Discussion #7 <i>Resource Disaggregation</i> Discussion leader: Amir Roozbeh</td><td>Discussion #4 <i>Event-based modeling and control for cloud computing</i> Discussion leader: Anton Cervin</td></tr></table>	Discussion #7 <i>Resource Disaggregation</i> Discussion leader: Amir Roozbeh	Discussion #4 <i>Event-based modeling and control for cloud computing</i> Discussion leader: Anton Cervin
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12:00 – 12:15	Summary of discussion session		
12:15 – 13:15	Lunch		
13:15 – 15:00	Closing remarks, summary of the workshop, and plans for continuation		
15:00 – 15:30	Coffee		