

## RESERVE Interdisciplinary course „Challenges and solutions in Future Power Networks”

RWTH Aachen University, Aachen (Germany), 11-15 March 2019

Time	Day	Monday	Tuesday	Wednesday	Thursday	Friday
	Part I		Part II			
09:00		<b>Welcome session</b> (A. Monti, RWTH Aachen )	<b>Keynote ICT: 5G for Smart Energy</b> (F. Williams, Ericsson)			
09:30		<b>Keynote Energy: CO2 Neutral Energy Supply Systems – Challenges, Opportunities and the Role of Power Electronics</b> (R. De Doncker, RWTH Aachen )	<b>ICT for Smart Grids with Up To 100% Renewables</b> (S. Bretzke, Ericsson)	<b>Cyber Security Workshop</b> (G. Lipari, RWTH)	<b>Monitoring of Power Systems</b> (M. Pau, RWTH Aachen)	<b>ICT for Energy workshop - theory + exercises</b> (Ericsson)
09:45						
10:00						
10:15		<i>Coffee Break</i>				
10:30		<b>Today's electrical Networks</b> (A. Monti, RWTH )	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>
11:00		<b>Key Concept for future Frequency definition and control</b> (L.Toma, University of Bucharest)	<b>Components for grid connections power electronics</b> (S. Cui, RWTH Aachen )	<b>Frequency Control Workshop Theory</b> (L.Toma, University of Bucharest; A.Mazza, Politecnico di Torino; A.Musa, RWTH Aachen)	<b>Voltage Control Techniques</b> (S. Gurumurthy, RWTH Aachen)	<b>Exam- Multiple choice</b>
11:30						
12:00						
12:30		<i>Lunch Break</i>	<i>Lunch Break</i>	<i>Lunch Break</i>	<i>Lunch Break</i>	<i>Lunch Break</i>
13:30		<b>Linear Swing Dynamic: a new approach to frequency control”</b> (D. Raisz, RWTH Aachen)	<b>Business Cases &amp; Corporate Social Responsibility (CSR)</b> (H. Ketteniß , RWTH Aachen)	<b>Frequency Control Workshop Theory</b> (L.Toma, University of Bucharest; A.Mazza, Politecnico di Torino; A.Musa, RWTH Aachen)	<b>Lab session on using "RTDS for Monitoring of Power Systems"</b> (A. Sadu, Marco Pau, RWTH Aachen )	<b>Outlook and feedbacks</b>
14:00						
14:30		<b>Voltage Control</b> (S. Gurumurthy, RWTH Aachen)	<i>Coffee Break</i>	<i>Coffee Break</i>	<i>Coffee Break</i>	<b>Certificates Handover &amp; Conclusion</b>
15:00						
15:30		<i>Coffee Break</i>				
16:00		<b>The Role of NETWORK CODES on Future RES Developments in Europe</b> (M.Paun, Romanian Energy Center)	<b>Cybersecurity for Sustainable Energy Systems</b> (A. Mantooth, University of Arkansas)	<b>Introduction to real time simulation tools</b> (S. Vogel, RWTH Aachen )	<b>Voltage Control with OPAL RT</b> (S. Gurumurthy, RWTH Aachen)	
16:30						
17:00			<b>Optional E.ON ERC Lab tour:</b> -ACS Lab - EBC/PGS Testhalle			
17:30		<i>Break and poster session preparation</i>				
18:00		<b>"Academia meets industry"</b> Poster session & Networking / finger food dinner				
18:30						
19:00						
19:30				<b>Optional Get-Together</b> (Aachen tour)		
20:00						
20:30						