

# Summer school's program 28-30 August

## Program of day 1

	Day 1, August the 28th Capacitors and supercapacitors	Time
Registration		9:00 – 10:30
Plenary 1	<b>Power system balancing – what is it?</b> Olof Samuelsson, LTH	10:30 – 12:00
Lunch		13:00 – 13:00
Lecture	<b>Capacitors and supercapacitors – Materials</b> Yuriy Serdyuk, CTH	13:00 – 14:00
Lecture	<b>Capacitors and supercapacitors – Diagnostic methods</b> Thomas Hammarström, CTH	14:00 – 15:00
Coffe break		15:00 – 15:30
Lecture	<b>Capacitors and supercapacitors, opportunities and challenges from an industrial perspective</b> Maria Granath, Hitachi Energy	15:30 – 16:30
Plenary 2	<b>The energy challenge</b> Tomas Kåberger, CTH	16:30 – 18:00
	End of day	18:00

## Program of day 2

	Day 2, August the 29th Batteries	Time
Plenary 3	<b>Diversity in education</b> Becky Bergman, CTH	8:30 – 9:30
Lecture	<b>Batteries – electrolytes and basic concepts</b> Viktor Gueskin, LiU	9:30 – 10:30
Coffee		10:30 – 11:00
Lecture	<b>Batteries – electrodes and innovative concepts</b> Reverant Crispin, LiU	11:00 – 12:00
Lunch		12:00 – 13:00
Lecture	<b>Use of supercapacitors as energy storage at OKG</b> Jonas Jönsson and Anders Sehammar, OKG	13:00 – 13:30
Lecture	<b>Batteries on a system level</b> Olof Samuelsson, LTH	13:30 – 14:30
Coffee		14:30 – 15:00
Lecture	<b>Batteries integration – opportunities for the future power systems</b> Oliver King and Niklas Thulin, Volvo Energy	15:00 – 16:30
	<b>Students workshop</b>	16:30 – 18:00
	<b>Dinner</b>	18:00 –

## Program of day 3

	Day 3, August the 30th Energy storage interface	Time
Lecture	<b>Power electronics in low- and medium-voltage systems</b> Paolo Mattavelli, University of Padova	8:30 – 9:30
Lecture	<b>Power electronics in high-voltage systems</b> Jan Svensson, Hitachi Energy Research	9:30 – 10:30
Coffee		10:30 – 11:00
Lecture	<b>Second-life batteries as grid storage</b> Torsten Wik, CTH	11:00 – 12:00
Lunch		12:00 – 13:00
	<b>Students workshop</b>	13:00 – 14:30
Coffee		14:30 – 15:00
Plenary 4	<b>Opportunities and challenges for the future power systems – the TSO perspective</b> Viktoria Neimane, Svenska kraftnät	15:00 – 16:00
	<b>Closing and end of the summer school</b>	16:00 –