



Intelli-DHC Workshop 2016 IEEE SmartGridComm Conference

organized by
H2020 Project OPTi



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Organizers



- Wolfgang Birk
Luleå University of Technology, Sweden
- Vikas Chandan
IBM Research India
- Marilena Minou
Athens University of Economics and Business, Greece (AUEB)
- Arne Gylling
Luleå University of Technology, Sweden



Goals for today



- To bring together speakers and an audience from academia and industry to highlight the challenges and opportunities for inter-disciplinary research in the area of DHC systems.
- To elaborate on challenges regarding
 - modeling, management and optimization of DHC systems
 - consumer engagement
 - demand response algorithms and schemes
- To enable discussions!



Morning session

09:00 - 09:15	Opening
09:15 - 10:15	Keynote 1 "Datacenters as heat plants, opportunities and challenges." Presenter: Dr. Jonas Gustafsson, SICS North, Sweden
10:15 - 10:30	Coffee break
10:30 - 12:30	Paper session P1: "An Hybrid-Energy Generation Management System", Nicolas Perez-Mora; Paolo Lazzeroni; Mourizio Repetto P2: "Fairness based Demand Response in DHC Networks using Real Time Parameter Identification", Saptarshi Bhattacharya; Vikas Chandan; Vijay Arya; Koushik Kar P3: "Set-point Optimization Frameworks for Leveraging Passive Thermal Storage in Buildings", Kumar Saurav; Arun Vishwanath; Vikas Chandan P4: "Towards Autonomous Synthesis of Building Substation Control Loops", Wolfgang Birk; Khalid Atta
12:30 - 14:00	Lunch break

Afternoon session

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| 14:00 - 15:00 | Keynote 2
"Geothermal Energy: Overview and Challenges of Introducing an Emerging Technology"
Presenter: Dr. Guillermo Narsilio, University of Melbourne |
| 15:00 - 15:30 | Invited Talks part 1
I1: "OPTI-Sim: Co-simulation based virtualization of large scale DHC-networks", Wolfgang Birk, Yvonne Ritter, Nicklas Linder, Ulrich Odefey, Peter Lingman, Vikas Chandan |
| 15:30 - 15:45 | Coffee break |
| 15:45 - 16:45 | Invited Talks part 2
I2: "Action into INSIGHT: A learning journey to integrate smart technology and people into the sustainability and resilience of a city." Andrew Hannay, Townsville City Council, Australia
I3: "IoT-Driven Pre-cooling for Improved Building Energy Efficiency". Arun Vishwanath, IBM Research, Australia |
| 16:45 - 17:30 | Panel discussion:
"Challenges and opportunities of the integrated DHC"
Panel members: Dr. Guillermo Narsilio, Dr. Jonas Gustafsson, Andrew Hannay, Arun Vishwanath,
Moderator: Arne Gylling |
| 17:30 | Workshop closes |

Key note 1

Title: Datacenters as heat plants, opportunities and challenges

Speaker: Dr. Jonas Gustafsson, SICS North, Sweden

Chair: Wolfgang Birk, Luleå University of Technology, Sweden