

# Joint 13<sup>th</sup> CTTE and 10<sup>th</sup> CMI Conference on Internet of Things – Business Models, Users, and Networks Auditorium 1.008 at Aalborg University Copenhagen, A.C. Meyers Vænge 15

	Thursda	ay 23 <sup>rd</sup> November 2017	(Day 1)
08:30 - 09:00	Registration		
09:00 - 09:10	Welcome and Introduction  Knud Erik Skouby, Professor and Director, Center for Communication, Media and Information technologies, Aalborg University		
		09:10 - 11:00 Session 1	
	Te	chnologies and Business Mod	lels
	S	ession Chair: Knud Erik Skouk	ру
09:10 - 09.30		erds and Applications at Work - manag EO, Ring Advocacy LLC	ging large open-air events
09:30 - 09:50	5G standardisation and IoT use cases Preben Mogensen, Professor, Aalborg University		
09:50 - 10:10	Why do we need 5G? René Skytte Christoffersen, Director G&IR Market Area Europe & Latin America, Ericsson		
10:10 - 10:30	Business Models and IoT Ole Kjeldsen, CTO, Microsoft		
10:30 - 11:00	Discussion Panel		
11:00 - 11:20	Break		
		<b>Academic Parallel Sessions</b>	
		11:20 – 13:00	
Sessio	n 2 A	Session 2 B	Session 2 C
Room ACM15 (A) 2.1.021  Business Models in the Digital Economy (20 + 5 mins / Presentation)  Session Chair: Anders Henten		Room ACM15 (A) 2.1.025  Network Neutrality and Economic Impact of ICT (20 + 5 mins / Presentation)  Session Chair: Morten Falch	Room: Auditorium Techno-Economics of IoT (20 + 5 mins / Presentation)  Session Chair: Sokol Kosta
Realizing digital transformation through a digital business model design process, Suthamathy Sathananthan		Deviating from Net Neutrality: Assessing the impact on the implementation of Economic Replicability     Tests in Europe, George Charalam-	Designing and evaluating a smart cow monitoring system from a techno-economic perspective, <i>Jonethan Spruytte</i>
<ul> <li>Mobile ticketing services in the Northern Europe Critical busi- ness model issues, Jan Marken-</li> </ul>		<ul> <li>popoulos</li> <li>Network Neutrality Regulation in Brazil, Emerson laskio</li> </ul>	<ul> <li>TCO savings for Data Centers using NFV and hardware acceleration, Dimitris Xydias</li> </ul>
<ul> <li>dahl</li> <li>IT-Enabled Value Co-creation Process for Product Design, Reza</li> </ul>		The impact of ICT on economic growth of Greece and EU-28 under economic crisis, <i>Eleni Laitsou</i>	• 5G Micro-operators for the Future Campus: A Techno-economic Study Sunny Vijay
<ul> <li>Mohammadkazemi</li> <li>Dynamic Value Networks, Jonathan Spruytte</li> </ul>		Role of community network opera- tors in the evolution of wireless In- ternet in India, <i>Bhavya Dummi</i> Omkarappa	A self-supporting wireless IoT node that uses kinetic energy harvesting Per Lynggaard

Taxi: +45 48 48 48 48 Wifi AAU 1-day: wet76shut

Lunch a	cross the	bridge	in l	building	В
	13:00	) <b>- 14:0</b> 0	)		

### **Academic Parallel Sessions** 14:00 - 15:40

### Session 3 A Room ACM15 (A) 2.1.021 Business Models in 5G (20 + 5 mins / Presentation)

### Session Chair: Iwona Windekilde

- Blockchain Network Slice Broker in 5G, Jere Backman
- Business and Market Perspectives in 5G Networks, Alexandros Kostopoulos
- Roadmap to 5G success Influencing Factors and an Innovative Business Model, Dimitris **Xydias**
- Challenges for ICT Business Development in Intelligent Transport Systems, Jan Markendahl

### Session 3 B

### Room ACM15 (A) 2.1.025

Broadband and Convergence of **Networks** 

### (20 + 5 mins / Presentation)

Session Chair: Lene Sørensen

- Methodology for the Introduction of VaR Estimation in Telecommunications' Diffusion Forecasting, Nikolaos Kanellos
- A revisit of Fixed and Mobile Broadband diffusion in OECD: A new classification, Elias Aravanti-
- Fixed-mobile convergence in telecom markets: Evidence from Greece, Eleni Laitsou
- Understanding the Impact of Costly Search on Market Equilibria: A Comprehensive Review, Vangelis Logothetis

### Session 3 C

### **Auditorium**

Network Infrastructure and 5G (20 + 5 mins / Presentation)

Session Chair: J.J. V. Olmos

- Trends and challenges in the design of hardware platforms for IoT devices, Jens Sparsø
- ThingPot: an interactive Internetof-Things honeypot, *Fernando* Kuipers
- Super Infrastructure and Systems to support IoT and 5G systems, **Idelfonso Tafur Monroy**

15:40 - 16:00

Break

# **Academic Parallel Sessions**

#### Session 4 A

### Room ACM15 (A) 2.1.021

Smart Cities and New technologies

(20 + 5 mins / Presentation)

Session Chair: Jan Markendahl

# 16:00 - 17:40

### Session 4 B

Room ACM15 (A) 2.1.025

Security I

(20 + 5 mins / Presentation)

Session Chair: Henning Olesen

- IoT based Emergency and Operational Services in Medical Care Systems, Sari I. Lakkis
- "Factors in smart cities in the developing world: A case study in Vietnam", Thai Do Manh
- Scenario Planning for 5G Light Poles in Smart Cities, Bahareh Gholampooryazdi
- Culturally based user resistance to new technologies in the age of IoT in Developing Countries: Perspectives from Ethiopia, Joseph Kofi Wireko
- Blockchain-Based structures for a secure and operate IoT, Alexander Kuzmin
- A Proposed Data Science Approach for Email Spam Classification using Machine Learning Techniques, Aakash Alurkar
- An Application of Trust in Predictive Maintenance, Cicek Guven

19:15	Meet at Tivoli Entrance, Vesterbrogade 3, 1630 Copenhagen V	
	Tel. no. Samant Khajuria from CMI: +45 6083 4568	
19:30	Conference dinner at restaurant Brdr. Price in Tivoli	



## Joint 13<sup>th</sup> CTTE and 10<sup>th</sup> CMI Conference on Internet of Things – Business Models, Users, and Networks Auditorium 1.008 at Aalborg University Copenhagen, A.C. Meyers Vænge 15

Friday 24 <sup>th</sup> November 2017 (Day 2)		
09:00 – 09:10	Welcome	
-	09:10-11:00	) Session 5
	Innovative Applications a Session Chair:	
09:10 - 09:30	How to build digital products that your customer wants and capitalise on consumer use of mobile	
09:30 - 09:50	Simon Færch, Head of Digital Product Innovation, Coop Technology  Internet of Things - it is happening now Claus Klint, Sales Director IoT, IBM Analytics	
09:50 - 10:10	Cellular IoT, Connectivity is not the Thing  Franz Voglhofer, Radio Access Network Specialist   RAN Development Global Services and Operation, Telia Company	
10:10 - 10:30	Danfoss IoT Solutions – Technology and Business models  Søren Hesseldahl, Frontend Innovation Director, Danfoss A/S	
10:30 - 11:00	Discussion Panel	
11:00 – 11:20	Break	
	Academic Para	allel Sessions
	11:20 -	· 13:00
Rooi	Session 6 A m ACM15 (A) 2.1.021	Session 6 B  Room ACM15 (A) 2.1.025
NOC.	Security II	(Graduate Master Student Session)
<del>-</del>	5 mins / Presentation)	(20 + 5 mins / Presentation)
	n Chair: Samant Khajuria	Session Chair Reza Tadayoni
	ontext: Enhancing Intrusion Detection itext Information, <i>Simon Duque Anton</i>	Danfixx - Innovating Smart Home Heating, <i>Daniel Jacobsen</i> Contraction of Innovations of Innovation (Innovation).
•	s and Cyberattack Victimisation: Mul- Analysis, <i>Samar Muslah Albladi</i>	GET - visual overview of local food assortments, <i>Chritian Ritter</i> Improving upsta propagation and upsta polloption.
• A Formalization of Computational Trust, <i>Cicek Guven</i>		<ul> <li>Improving waste management and waste collection with IoT, <i>Manuel Maestrini</i></li> <li>Market Permeability of Connected car application platforms, <i>Ishaqur Rahman</i></li> </ul>

13:00 - 14:00 Lunch across the bridge in building B

Taxi: +45 48 48 48 48 Wifi AAU 1-day: awake39digestion

<b>Academic Parallel Sessions</b>
14:00 – 15:40

### Session 7 A

Room ACM15 (A) 2.1.021

Platforms for IoT

(20 + 5 mins / Presentation)

Session Chair: Per Lynggaard

- On the role and potential of IoT in different industries,
   Jan Markendahl
- "IoT-Communications as a Service: Actor Roles on Indoor Wireless Coverage.", Mohammad Istiak Hossain
- An Overview of Wireless IoT Protocol Security in the Smart Home Domain, *Victor J. Expósito Jiménez*
- Internet of Things the battle of standards, Anders
   Henten

### **Session 7 B**

Room ACM15 (A) 2.1.025

5G Spectrum and operator strategies (20 + 5 mins / Presentation)

Session Chair: Jannick Kirk Sørensen

- Framework for Spectrum Authorization Elements and its Application to 5G Micro-Operators, *K. B. Shashika Manosha*
- Frequency spectrum as the investment: an agentbased approach for modeling operator's strategies, Juraj Gazda
- Effects of budget on investor's behaviour in the secondary spectrum market, Jana Zausinov
- 5G Transformation: How Mobile Network Operators are Preparing for Transformation to 5G?, Ali Sarfaraz

15:50 - 16:00	Closing Day 2
16:00 -	Networking / Social (FKJ12, 3 <sup>rd</sup> floor)