

# Wireless Sensor Networks - theory and practice

WSN Program

Monday, December 21

8:00 AM – 6:00 PM

Registration

9:00 AM - 09:25 AM

Opening ceremony

Room: The View

9:25 AM - 10:40 AM

Session: Routing Protocols

Room: The View

Chair: Prof. Xiaozong Yang (Harbin Institute of Technology, China)

***Modeling the Topology for Cluster-based Wireless Sensor Networks***

Li-jun Chen (Nanjing University, P.R. China); Qingfeng Pan (Nanjing University, P.R. China); Daoxu Chen (Nanjing University, P.R. China); Li Xie (Dept of Computer Science and Technology, Nanjing University, P.R. China)

***Performance Study of Node Placement for Congestion Control in Wireless Sensor Networks***

Vasos Vassiliou (University of Cyprus, Cyprus); Charalambos Serqiou (University of Cyprus, Cyprus)

***Flash Mob Organization in Heterogeneous Wireless Sensor Networks***

Tobias Baumgartner (Braunschweig University of Technology, Germany); Sándor P. Fekete (Braunschweig University of Technology, Germany); Winfried Hellmann (Braunschweig University of Technology, Germany); Alexander Krölller (Braunschweig University of Technology, Germany)

10:40 AM - 11:00 AM

Coffee Break

11:00 AM - 12:45 PM

Session: Energy Efficient Communication

Room: The View

Chair: Alexander Krölller (Braunschweig University of Technology, Germany)

***Potential Game Model to Detect Holes in Sensor Networks***

Yenumula B Reddy (Grambling State University, USA)

***Characterizing the Traffic Load Distribution in Dense Sensor Networks***

Qinghua Wang (Mid Sweden University, Sweden); Tingting Zhang (Mid Sweden University, Sweden)

***Impact of Duty Cycle Variation on WSNs***

Sithu Sudarsan (University of Arkansas at Little Rock, USA); Vimalathithan Subramanian (University of Arkansas at Little Rock, USA); Kenji Yoshigoe (University of Arkansas at Little Rock, USA); Srinu Ramaswamy (University of Arkansas at Little Rock, USA); Remzi Seker (University of Arkansas, USA); Rathinasamy Lenin (University of Arkansas at Little Rock, USA)

***A new energy-efficient, scalable and robust architecture for Wireless Sensor Networks***

Juan-Vicente Capella-Hernández (Technical University of Valencia, Spain); Alberto Bonastre (Technical University of Valencia, Spain); Rafael Ors (Technical University of Valencia, Spain); Salvador Climent (Technical University of Valencia, Spain)

**12:45 PM - 2:00 PM**

**Lunch**

**2:00 PM - 4:00 PM**

**Session: Localization**

**Room: The View**

Chair: Hong Sun (Wuhan University, P.R. China)

***Localized and Integrated Topology Maintenance for Wireless Sensor Networks***

Yu Zhang (Orange Labs - Beijing, P.R. China); Nannan Zhao (Beijing University of Posts and Telecommunications, P.R. China)

***Robust Cooperative Localization Technique For Wireless Sensor Networks***

Mohamed Youssef (University of Calgary, Canada); Naser El-Sheimy (University of Calgary, Canada)

***Minimizing Cost of Scalable Distributed Least Squares Localization***

Ralf Behnke (University of Rostock, Germany); Jakob Salzmann (University of Rostock, Germany); Dirk Timmermann (University of Rostock, Germany)

***Towards an Efficient Positioning of Mobile Sinks in Wireless Sensor Networks inside Buildings***

Leila Ben Saad (LIP UMR 5668 of CNRS-ENS-INRIA-Université Lyon1, France); Bernard Tourancheau (UMR LIP from CNRS, ENS, INRIA and University Lyon1, France)

***Node Localization Algorithm Based on Matrix Pencil for Wireless Sensor Network***

Chang Liu (Jilin University, P.R. China); Hong Jiang (Jilin University, P.R. China); Defa Wang (Jilin University, P.R. China)

**4:00 PM - 4:30 PM**

**Coffee Break**

**4:30 PM - 6:00 PM**

**Session: Demonstrations**

Room: The View

Chair: Alexander Kröller (Braunschweig University of Technology, Germany)

LIMOS-Cemagref, Kun-Mean Hou & Jean-Pierre Chanet

**Tuesday, December 22**

**8:00 AM – 6:00 PM**

**Registration**

**12:15 PM - 1:30 PM**

**Lunch**

**1:30 PM - 3:30 PM**

**Session: Applications**

Room: The View

Chair: Dr. Jean-Pierre Chanet (Cemagref, France)

***Toward a low cost and single chip HOLTER: SoC-HOLTER***

Hao Ding (LIMOS, Université Blaise Pascal, France)

***A Practical Scheme to Improve User Satisfaction with Reduced Power in Wireless Networks***

Dong Cheul Jang (Sogang University, Korea); Ju Wook Jang (Sogang university, Korea)

***Analytical Model for Energy Consumption Analysis in Grid Based Wireless Sensor Networks***

Zeeshan Ali Khan (CNRS-LEAT, Université de Nice-Sophia Antipolis, France); Cécile Belleudy (CNRS-LEAT, Université de Nice-Sophia Antipolis, France); Michel Auguin (CNRS-LEAT, Université de Nice-Sophia Antipolis, France)

***WSN Architectures for Intelligent Transportation Systems***

Mounib Khanafer (University of Ottawa, Canada); Mouhcine Guennoun (University of Ottawa, Canada); Hussein Mouftah (University of Ottawa, Canada)

***Fabrication of Passive Wireless Sensor by Pulsed Laser Scribing of Indium Tin Oxide***

Oguzhan Balki (Old Dominion University, USA); Hani Elsayed-Ali (Old Dominion University, USA)