# ENSsys 2020

in conjunction with ACM SenSys

8<sup>th</sup> Int'l Workshop on Energy Harvesting & Energy-Neutral Sensing Systems





# **CALL FOR PAPERS**

ENSsys will be held as a virtual event in conjunction with ACM SenSys. Complementing the topics of SenSys 2020, this workshop will bring researchers together to explore the challenges, issues and opportunities in the research, design, and engineering of energy-harvesting, energy-neutral and intermittent sensing systems. These are enabling technologies for future applications in smart energy, transportation, environmental monitoring and smart cities. Innovative solutions in hardware for energy scavenging, adaptive algorithms, and power management policies are needed to enable either uninterrupted or intermittent operation. High quality technical articles are solicited, describing advances in sensing systems powered by energy harvesting, as well as those which describe practical deployments and implementation experiences. ENSsys also offers a platform for innovative future directions by soliciting position papers.

### **IMPORTANT DATES**

Submission: September 18, 2020 (23:59 AoE)

Notification: October 9, 2020 Camera Ready: October 16, 2020 Workshop: November 16, 2020

# **ORGANIZING COMMITTEE**

General Chair: Alex Weddell, University of Southampton, UK
Program Chair: Josiah Hester, Northwestern University, USA
Video Chair: Jacob Sorber, Clemson University, USA
Online Chair: Przemysław Pawelczak, TU Delft, The Netherlands

### **STEERING COMMITTEE**

Brandon Lucia, Carnegie Mellon University, USA Geoff Merrett, University of Southampton, UK Przemyslaw Pawelczak, TU Delft, The Netherlands Christian Renner, TUHH, Germany Jacob Sorber, Clemson University, USA

## **TECHNICAL PROGRAM COMMITTEE**

Mo Alloulah, Nokia Bell Labs, USA

Sebastian Bader, Mid Sweden University, Sweden
Brad Campbell, University of Virginia, USA
Henry Duwe, Iowa State University, USA
Maria Gorlatova, Duke University, USA
Jeremy Gummeson, University of Massachusetts Amherst, USA
Wen Hu, University of New South Wales, Australia
Polly Huang, National Taiwan University, Taiwan
Tianxing Li, Michigan State University, USA
Michele Magno, ETH Zürich, Switzerland
Shijia Pan, University of California Merced, USA

Pat Pannuto, University of California San Diego, USA Joshua San Miguel, University of Wisconsin-Madison, USA

Anand Savanth, Arm Research, UK

Matthias Wählisch, Freie Universität Berlin, Germany

### **WORKSHOP SCOPE**

Topics of interest include, but are not limited to:

- Power management concepts, algorithms and circuits for energy-harvesting sensing systems
- Hardware and software concepts, algorithms and circuits for intermittent computing
- Middleware and services supporting interoperability between zero-energy networks
- Resource management and operating system support for energy-harvesting sensing systems
- Network-wide distributed energy management (e.g. routing, adaptive duty cycling, etc.)
- Communication in intermittent-power domain
- Online measurement of energy intake and consumption
- Predicting energy intake and consumption
- Ensuring reliable operation in energy-harvesting sensor systems
- Modelling, simulation and tools for effective design of future energy harvesting sensing systems
- Architectures and standards for energy-neutral, power-neutral or intermittent sensing systems
- Internet of (battery-less) Things
- Experience with real-world deployments and innovative applications

# **SUBMISSION GUIDELINES**

We are soliciting four types of submission: **technical papers** (up to 6 pages, plus references), **position papers** (up to 3 pages), **poster papers** (up to 2 pages), and **demo papers** (up to 2 pages). Accepted authors will be requested to upload a video prior to the event (mandatory for poster/demo papers), with live interaction in scheduled sessions on the day of the workshop. Papers should be submitted for consideration via the workshop website, prior to the submission deadline. Papers must adhere to the formatting guidelines (templates are available from the workshop website) and will undergo double-blind review. They will be assessed for novelty, relevance and quality. Accepted papers will be available on the ACM Digital Library before the workshop.