Complementing the topics of SenSys 2022, 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.

### 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

### Important Dates

- Submission: September 5, 2022
- Notification: October 3, 2022
- Workshop: November 6, 2022

### Organizing Committee

- General Chair: Sebastian Bader; Mid Sweden University; Sweden
- Program Chair: Bashima Islam; Worcester Polytechnic Institute; USA
- Demo Chair: Michele Magno; ETH Zurich; Switzerland
- Web Chair: Geoff Merrett; University of Southampton; UK

### Steering Committee

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- Bernd-Christian Renner; Hamburg University of Technology; Germany
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- Polly Huang, National Taiwan University, Taiwan
- Tianxiong Li, Michigan State University, USA
- Luca Montola, Politecnico di Milano, Italy; and R.I.SICs, Sweden
- Shijia Pan, Carnegie Mellon University, USA
- Vaishnavi Ranganathan, Microsoft Research, USA
- Olivier Sentieys, University of Rennes, France
- Elahe Soltanaghai, University of Illinois Urbana-Champaign, USA
- Mahmoud Wagih, University of Glasgow, UK
- Lars Wolf, TU Braunschweig, Germany
- Matthias Wählisch, Freie Universität Berlin, Germany
- Kasim Sinan Yıldırım; University of Trento, Italy
- Matteo Zella, University Duisburg-Essen, Germany

### 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). 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 reviewed for novelty, relevance and quality. Accepted submissions will be available on the ACM Digital Library at least one week before the conference.