**Session Title**: Artificial Intelligence (AI) Driven Self-powered Sensing

**Introduction**: Integrating self-powered sensing technologies with Artificial Intelligence (AI) transforms the landscape of battery-free applications in smart systems. AI drives self-powered systems by advancing smart materials, structures and circuits. Self-powered sensing leverages the ability to harvest energy from environmental sources, enabling the sustainable operation of wireless sensor networks within the Internet of Things (IoT). Their synergy is anticipated to accelerate progress in high-performance energy harvesters and energy-efficient circuits, enhancing robustness, responsiveness, and sustainable power for real-time monitoring of critical infrastructures or assets. This session aims to foster innovative solutions through interdisciplinary collaboration among mechanical engineering, electrical engineering, computer science and applied AI.

**Topics**:

To gather researchers working on AI-driven self-powered sensing, we invite submissions on a wide range of related topics, including but not limited to:

* AI-driven smart material for energy harvesting
* AI-driven smart structure for energy harvesting
* AI-driven smart circuit for energy harvesting
* AI-driven modeling and identification for energy harvester system
* AI-driven structural health monitoring

**Session Chair(s)**

* Xutao Mei, Professor

Affiliation: Harbin Institute of Technology

Email: meixutao@hit.edu.cn

* Jianpin Guo, Professor

Affiliation: Sun Yat-Sen University

Email: guojp3@mail.sysu.edu.cn

* Junrui Liang, Professor

Affiliation: ShanghaiTech University

Email: liangjr@shanghaitech.edu.cn

* Lei Hou, Professor

Affiliation: Harbin Institute of Technology

Email: houlei@hit.edu.cn

* Yilong Wang, Associate Professor

Affiliation: Harbin Institute of Technology

Email: yl.wang@hit.edu.cn