

Special Session (SS03)

Energy Harvesting for Sensor Applications

Organizer:

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Description:

Most embedded devices, remote sensors, and medical implant devices are powered by batteries. Yet, lifespan of the batteries is limited to few years. To eliminate costly battery replacements issues, especially when it is impractical or expensive, energy harvesting technologies provide unique opportunity for unlimited operating life of low power devices. Energy harvesting by piezoelectric, thermoelectric, and pyroelectric effects offers an alternative source of usable electrical power by capture and conversion of available kinetic and thermal energy. This special session addresses academic research in this dynamic and promising domain for increasing visibility of the valuable and interesting results. Potential topics include, but are not limited to, design and modelling of the thermal and vibrational energy harvesters, fabrication, test and verifying energy harvesting systems, integration of the energy harvesting system elements, reliability and feasibility studies, and power management of the energy harvesting systems.