Micro-Power Platforms

Powering “Things” - developing efficient devices and system to generate, store and manage power in the micro-Watt to milli-Watt range - is one of the most significant challenges to the growth of the Internet of Things. At Tyndall, we are developing hybrid micro-power platforms for self-powered “Things” and smart systems. Key research themes include:

Energy Harvesting from vibrations (using piezoelectric or electromechanical) and temperature gradients (thermoelectric devices).

Energy Storage: Microbatteries for efficient storage, electrochemical supercapacitors for rapid storage and release and solid-state supercapacitors for on-chip power management applications

Power Management circuits and systems to interface energy harvesting and storage components with maximum efficiency and manage the dynamic power requirements of the smart system.
Dr Devendra Prakash Gautam and Dr Kafil M. Razeeb working with the thermoelectric materials deposited on Si.

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