



UNIVERSITÀ DEGLI STUDI
DI PERUGIA

AVVISO DI SEMINARIO

nell' ambito del ciclo: "La Ricerca nel Dipartimento
presentata dai Giovani Ricercatori" – A.A. 2014/15.

Mercoledì 10 Dicembre 2014 - ore 15:00

Aula "A" - 1° piano edificio di Via Pascoli

Dr. Francesco Cottone

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"Micro- and Nano-Systems for Energy Harvesting

Abstract:

The possibility for miniature wireless sensors to operate for indefinite time by capturing part of the environmental energy where they are located open a vast scenario of biomedical, infrastructural and industrial applications. In particular, wasted kinetic energy is one of the most promising source among electromagnetic, solar and thermal energy. However, most of vibrating sources are typically located at very low frequencies: human movements, bridges, transportation etc. Besides, vibration energy harvesters (VEHs) based on Micro- and Nano-Electro-Mechanical-Systems (NEMS, MEMS) suffer from the limit of high resonating frequencies. This talk will present novel approaches for efficient low-frequency miniature VEHs with a special focus on forthcoming applications in biomedical and remote wireless sensing. In addition, the EU project *PROTEUS* for remote water monitoring through self-powering wireless sensors, recently approved by H2020 funding program, will presented.

Tutti quanti gli interessati sono cordialmente invitati a partecipare.

Il Coordinatore del Ciclo di seminari
Prof. Lucio Cerrito

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