



Università Tor Vergata, Roma
Dipartimento di Informatica, Sistemi e Produzione
GeoInformation Doctorate



Yearly presentations by PhD candidates

DISP meeting room, Ingegneria dell'Informazione ground floor, Via del Politecnico, 1
18 January 2011, starting at 16:00

Cecilia Occhiuzzi

Wearable and Implantable RFIDs for Human-body Sensing

ABSTRACT

One of the most ambitious application of RFID sensing is a kind of Internet of the Body, e.g. when persons and even their internal organs are tagged with the aim to continuously and remotely collect information about their condition and state.

During the last year, wearable and implantable radio sensors have been investigated by means of theoretical and experimental approaches. Specific applications are: human health, strain and environmental (by using carbon nanotubes) monitoring.

General methodologies can be proposed, according to the paradigm of the RFID Sensing Dynamic Design, where anatomical, physio-pathological and chemical considerations together with electromagnetic and system analysis meld to open innovative scenarios.

Cecilia Occhiuzzi received the M.S.degree cum laude in Medical Engineering in 2008 from Tor Vergata University, Rome. Currently She is a third-year Ph.D. candidate of the GeoInformation Doctorate, with interests in Wireless Health Monitoring by wearable and implantable RFID techniques.

In 2008, she was with the University of Warwick, UK, working on design and implementation of wireless SAW chemical sensors. In 2010 She visited the Georgia Institute of Technology, Atlanta, GA, U.S.A., where her work was mainly focused on the design of passive RFID sensors for Structural Health Monitoring and gas detection by carbon nanotubes.

You are cordially invited to attend.

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