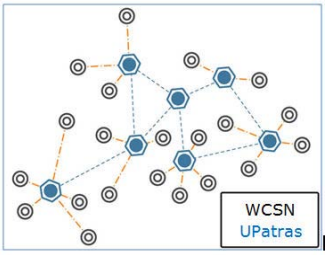

SPC Lab, IEEE Greece Signal Processing Chapter, UPatras - WCSN

ΠΡΟΣΚΛΗΣΗ ΣΕ ΔΙΑΛΕΞΗ

Την Πέμπτη 26 Ιουνίου 2014, στις 12:00μμ, στην Αίθουσα Π200 του Τμήματος Μηχανικών Η/Υ & Πληροφορικής (στο προκατ κτίριο), θα πραγματοποιηθεί διάλεξη από τον Δρ. Γεώργιο Αλεξανδρόπουλο, Κύριο Ερευνητή του Athens Information Technology (AIT).

Το θέμα της διάλεξης είναι:

"Transceiver Techniques for Multi-user Multi-antenna Systems"

Η διάλεξη συνδιοργανώνεται από το Εργαστήριο Σημάτων και Τηλεπικοινωνιών του ΤΜΗΥΠ, το IEEE Signal Processing Society Greece Chapter και το Ενδοπανεπιστημιακό Δίκτυο Έρευνας και Εφαρμογών σε Ασύρματα Δίκτυα Επικοινωνιών & Αισθητήρων.

Ακολουθεί περίληψη της ομιλίας και σύντομο βιογραφικό του ομιλητή.

Τίτλος διάλεξης: Transceiver Techniques for Multi-user Multi-antenna Systems

Περίληψη:

Multi-user multi-antenna techniques with various forms of cooperation among network nodes have been identified as an indispensable technology for the physical layer of next generation wireless networks, offering theoretical capacity gains and increased reliability. In this talk, an overview of the recently proposed transceiver techniques for the K-user multiple-input multiple-output (MIMO) interference channel will be first presented. Emphasis will be given on the amount of information exchange among networks nodes needed for each representative category of transceiver techniques, and fundamental limits of cooperation will be discussed. In the second part of the talk, a reconfigurable iterative algorithm for the K-user MIMO interference channel will be presented along with extensive performance comparisons with relevant techniques. The proposed algorithm automatically adjusts itself to the interference regime at hand as well as to the wireless channel conditions in order to achieve the appropriate sum-rate scaling. Finally, initial results with a limited feedback cooperative

technique combined with user scheduling for an isolated 3-cell cellular system will be presented.

Σύντομο βιογραφικό ομιλητή:

George C. Alexandropoulos, Ph.D., received the Diploma degree (5 years) in computer engineering and informatics, the M.A.Sc. degree (with distinction) in signal processing and communications, and the Ph.D. degree in wireless communications from the University of Patras (UoP), School of Engineering, Computer Engineering and Informatics Department, Rio-Patras, Greece in 2003, 2005, and 2010, respectively. He has been holding research positions and participating in various national and European R&D projects at several Greek universities and research centers including UoP, Technical University of Crete, National Observatory of Athens, National Centre for Scientific Research-"Demokritos" and the Athens Information Technology (AIT). He has tough courses at UoP and AIT, and he has been an adjunct lecturer at the University of Peloponnese, Department of Informatics and Telecommunications, Greece. Currently, he is a senior researcher at AIT and a member of its Broadband Wireless and Sensor Networks research team. His research interests include cooperative and cognitive radio systems, fading channels, multiuser multiple-input multiple-output (MIMO) techniques, massive MIMO systems, and signal processing for wireless communications. More information is available in: www.alexandropoulos.info.

Πληροφορίες για τη διάλεξη:

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