Call for Contributions for

Special Session: MAAZE: Wireless Communications: The March Towards Absolute Zero

Chair and Organizer: Assistant Professor Dr. Kasturi Vasudevan, IITK - Indian Institute of Technology Kanpur - IIT Kanpur, India vasu@iitk.ac.in

along with

ICWMC 2016, The Twelfth International Conference on Wireless and Mobile Communications

http://www.iaria.org/conferences2016/ICWMC16.html
November 13 - 17, 2016 - Barcelona, Spain

Submissions deadlines

Submission deadline: September 15
Acceptance deadline: September 25
Registration deadline: October 5
Camera-ready deadline: October 5

Submission to: Assistant Professor Dr. Kasturi Vasudevan, IITK - Indian Institute of Technology Kanpur - IIT Kanpur, India vasu@iitk.ac.in

Contribution types

Regular papers [in the proceedings, digital library]
Short papers (work in progress) [in the proceedings, digital library]
Posters: two pages [in the proceedings, digital library]
Posters: slide only [slide-deck posted on www.iaria.org]
Presentations: slide only [slide-deck posted on www.iaria.org]
Demos: two pages [posted on www.iaria.org]

Paper Format

See: http://www.iaria.org/conferences2016/CfPADVCOMP16.html
Before submission, please check and comply with the editorial rules:
http://www.iaria.org/editorialrules.html

Publications

Extended versions of selected papers will be published in IARIA Journals: http://www.iariajournals.org
Print proceedings will be available via Curran Associates, Inc.: http://www.proceedings.com/9769.html
Articles will be archived in the free access ThinkMind Digital Library: http://www.thinkmind.org

Registration

Each accepted paper needs at least one full registration, before the camera-ready

manuscript can be included in the proceedings.
Registration fees are available at http://www.iaria.org/registration.html

Content
Aim: Error-free transmission has been achieved over AWGN channels at an average SNR per bit close to the channel capacity of -1.6 dB.

What is the channel capacity for wireless systems? Can the same performance be attained by practical wireless systems over fading (wireless) channels? What are the implications for the hardware on which the signal processing algorithms are implemented, in terms of the power consumed to run the algorithms? What is the operating SNR per bit of the present day mobile phones? (The mobile phones indicate a typical received signal strength of -100 dBm. However, this is not the SNR per bit). By operating at an SNR per bit close to 0 dB, can the battery life of the mobile phones be enhanced?

These are some of the issues that the session hopes to explore.

The author has obtained a BER of 8.6 * 10^{-6} at an SNR per bit of just 3.5 dB with a 2x2 turbo coded MIMO OFDM system, over frequency selective Rayleigh fading channels, with estimated channel, carrier and timing at the receiver. The algorithms have been simulated in Scilab.

The session invites authors to present the state-of-the-art on this topic, to discuss both the hardware and the software aspects.
The topic suggested by the track can be discussed in term of concepts, state of the art, research, standards, implementations, running experiments, applications, and industrial case studies. Authors are invited to submit complete unpublished papers, which are not under review in any other conference or journal in the following, but not limited to, topic areas.

Inquiries:
Chair: Assistant Professor Dr. Kasturi Vasudevan, IITK - Indian Institute of Technology Kanpur - IIT Kanpur, India vasu@iitk.ac.in
Logistics: steve@iaria.org

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Kasturi Vasudevan, Associate Professor
Dept of EE, IIT Kanpur 208016
Kanpur, India
Phone:
+91-512-259 7109 (O)
+91-512-259 8364 (R)
Fax: +91-512-259 0063
email: vasu@iitk.ac.in

Web: http://home.iitk.ac.in/~vasu/
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