

# SoC Evolution for the Communications Market

**Date: Dec 8, 2009  
(Tuesday)**

**Time: 6.00 -6.30 pm -  
Refreshments  
6.30 - 7.30 pm -Talk  
7.30 - 8.00 pm - Q&A**

**Place: Rm 116,  
Bio-Medical Engineering  
Building, Busch Campus,  
Rutgers University,  
599 Taylor Rd,  
Piscataway, NJ 08854**

RSVP to  
Nagi.Naganathan@lsi.com or  
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<http://maps.rutgers.edu/building.aspx?id=1089>*

## **SPEAKER: DR. ZORAN MILJANIC**

### **Abstract:**

The talk will discuss requirements and architecture framework for high speed communication SoC. We will discuss limitations of the current practice. We will contrast the hybrid hw/sw approach to the CPU centric and discuss open problems. Software Defined Radio (**SDR**) approach for the multi layer wireless communication protocol processing will be examined with the overview of origins, drivers and limitations, and discussion of alternative approach to address market needs.

The talk will also present key consideration in the three complementary planes of SoC design: run time control of computing resources, interconnect and memory organization.

### **Speaker Bio:**

**Zoran Miljanic** has more than 20 years of industry experience in computer and communications technology, with technical and management roles of increasing responsibility in IBM T.J Watson, Bell Labs, NEC Labs, Network Machines, Velio Communications and Conexant Systems. Zoran is co inventor of the classical Foschini-Miljanic algorithm for power control based distributed channel allocation in cellular wireless networks.

He is the founder and president of Technology Networking International LLC, the company focusing on the promotion of broadband communication industry in the emerging markets of Eurasia, Zoran is founder and president of MultiFlow Communications, the company designing IP cores for the emerging wireless communication standards. He is also Research Professor at Rutgers University Wireless Information Network Laboratory (**WINLAB**) leading the effort on the design of new cognitive radio platforms for the next generation wireless networks.

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