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Sep. 2004 Special Issue on System Integration Technologies for Wireless Terminals

During last decade, we have seen wide spread of various wireless terminals. Endless advances in integrated circuit technologies, CMOS in particular, has made a significant impact on today's wireless technologies in terms of sensitivity, selectivity, programmability as well as power consumption. Wireless hardware engineers have traditionally worked with combining prefabricated and fully characterized heterogeneous building blocks such as RF chips, filters, and switches and so forth on a printed circuit board, while IC circuit designers have used a large number of reusable analog and digital functional blocks relying on the high yield of silicon ICs to monolithically integrate. The advent of various system integration technologies such as SoC and SiC have opened a large number of possibilities for designers of wireless systems.

This special issue intends to gather and disseminate the most recent advances in the field of various integrated system technologies including fabrication process, modeling and simulation, concepts, architectures, building blocks, circuits and systems. The proposed topic areas will include but are not limited to the following:

1. Architecture for system integration :

- Integrated transceiver architectures toward single chip radio
- Multi-mode, multi-band systems
- Co-optimization of RF/base-band
- New radio's such as UWB

2. Building Blocks :

- RF building blocks such as LNA, Mixers, Frequency synthesizers, Power amplifiers
- IF and base-band analog circuits
- DSP building blocks including memories
- New device and circuit concepts such as MEMS switches, MIMO antenna's. UWB circuits

3. System integration technologies

- Fabrication process toward single chip radio
- Integration of heterogeneous system such as SoC and SiP

4. Modeling and Simulation

- M/S for various physical layer technology
- M/S for various network layer

Authors wishing to have their contributions considered for publication in this Special Issue, which will be published in Sep. 2004 issue, are invited to submit an electronic copy of their manuscripts to Editor-in-Chief, Kwyro Lee, at no later than **July 31, 2004**. Manuscripts should be submitted in free style double spaced MS Word or pdf file formats as an email attachment. See <http://www.jsts.org> for detail. Both regular papers as well as letters are welcome.

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