Editorial

This special issue of the Journal of Semiconductor Technology and Science highlights some of the best papers from the 8th RF Integrated Circuit Technology Workshop, which was held at the Ramada Plaza Hotel, Jeju, Korea, September 4-6, 2008. Since its inception in 2001, the Workshop has developed to be a unique forum for exchanging the up-to-date RFIC related research activities in Korea. Another benefit of the Workshop is the student paper contest to encourage the active involvement of graduate students in the RFIC field. This year marks the third consecutive year of the student paper contest. Among the original thirty one excellent technical papers, four best papers were selected by the program committees to be published in a full paper form.

The first paper by M. C. Ha *et al.* presents a 3-5 GHz non-coherent IR-UWB receiver. Inductorless design techniques to occupy small silicon area while maintaining wideband characteristic are described. The second paper by T. –S. Kim *et al.* describes a novel linearization method suited to differential CMOS low noise amplifier. They achieve 6.6-dB IIP3 improvement compared to the conventional methods. The next two papers deal with millimeter-wave circuit design in CMOS. The third paper by C. Lee *et al.* presents a 77-GHz low noise amplifier and the fourth paper by N. Kim *et al.* presents a 60-GHz voltage controlled oscillator. Both circuits, implemented in 130 nm CMOS, demonstrate reasonable possibilities of millimeter-wave circuit implementation in a rather low cost 130 nm CMOS technology.

I hope the four papers of this special issue provide useful information and design idea in the field of CMOS RF and millimeter-wave circuit design. Finally, I would like to thank the authors for their efforts, and the Workshop Chair Prof. Kukjin Chun and the Committee Chair Dr. Hyun-Kyu Yu for their continued contribution and leadership for this RFIC Technology Workshop.

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