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## IEEE SSCS/CAS Atlanta Joint Chapter Seminar

**Title:** Time-domain analog and digital mixed-signal (TD-AMS) processing and its application for LDPC decoder

**Speaker:** Dr. Shouhei Kousai

**Affiliation:** Toshiba Corporation, Kanagawa, Japan

**Abstract:** Analog computation is potentially efficient in certain arithmetic operations since a single wire can have infinite-bit information, while digital system still presents advantages, for example, in logical operations. However, the usage of conventional voltage-domain analog computation is limited due to its poor scalability, design complexity, and the overhead of interface circuits (i.e. ADC/DAC) to digital system. In this talk, time-domain analog and digital mixed-signal (TD-AMS) processing, in which time is utilized as an analog signal, is introduced. Also, its application for low-density parity check (LDPC) decoder is presented.

**Speaker Biography:** Dr. Shouhei Kousai is an RF Design Manager and Design Engineer at Toshiba Corporation, Kanagawa, Japan. He serves as a member of the technical program committee (TPC) of Asian Solid-State Circuit Conference (A-SSCC) from 2008 to 2010, and a member of TPC of International Solid-State Circuit Conference (ISSCC) from 2011 to present.

**Seminar Time:** 1:30PM to 2:30PM on October 11<sup>th</sup> 2013

**Seminar Location:** Technology Square Research Building (TSRB), 1st Floor Auditorium (Rm118), 85 5th Street NW, Atlanta, GA 30308

**Organizer:** Dr. Hua Wang, IEEE SSCS/CASS Atlanta Joint Chapter Chair, Assistant Professor, School of Electrical and Computer Engineering, Georgia Institute of Technology.

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**Light refreshments will be served at the seminar.**



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