



IEEE CAS Distinguished Lecture and SSCS/CAS Atlanta Joint Chapter Invited Seminar

Development of Parallel Architectures for Radar Signal Processing Algorithms

Speaker: Professor Mohsin M. Jamali

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Abstract: Modern parallel processing system can be designed using Multi-Core processors, Graphic Processing Units (GPUs), Multi-Core DSPs and Field Programmable Arrays (FPGAs). It is not known which kind of processing platform will be appropriate for a particular application. Considerable amount of simulation work is required to determine an appropriate architecture for a given application. Moreover development of parallel architectures requires an interdisciplinary approach of studying, identifying, and selecting good algorithms which are accurate and do not require massive amount of computing power. Execution of these algorithms on Multi-Core/GPUs/FPGAs architectures would require exploitation of parallel processing. This talk will present implementation of extensive cancellation algorithm, direct data domain algorithm and particle filter algorithm on various parallel processing platforms.



Speaker Biography: Mohsin M. Jamali is Professor of Electrical Engineering and Computer Science at the University of Toledo, Toledo, Ohio. He earned his B.Sc. Engineering degree in Electrical Engineering from the Aligarh Muslim University, India in 1975, M.S. in Electrical Engineering from the University of Saskatchewan, Canada in 1979 and Ph. D. in Electrical Engineering from the University of Windsor, Canada in 1984. He joined the University of Toledo in 1984. He is a senior member of IEEE. His research is in the area of parallel computer architectures for real time applications. Recent research interests include parallel processing using FPGAs, Multi_Core, GPUs for radar signal processing, adaptive control algorithms, acoustic and IR video Processing. He has published extensively in journals and IEEE conferences. He received two awards from University Clean Energy Alliance of Ohio. He received researcher of the year award, Department of Electrical Engineering and Computer Science, The University of Toledo, in 2014. He is elected to IEEE Circuits and System Society's distinguished lecture program for the two-year 2014-2015 term. He is currently serving as the Chair-Elect for the VLSI System Application Technical Committee for the IEEE Circuit and Systems Society. He was awarded the Fulbright-Tampere University of Technology (Finland) Scholar Award for 2014-2015. He has performed research under Fulbright program in Finland.

Seminar Time: 1:30PM-3:00PM on Sept 18th 2015

Seminar Location: TSRB 530, Georgia Tech.

Organizer: Dr. Hua Wang, IEEE SSCS/CASS Atlanta Joint Chapter Chair, Assistant Professor, School of ECE, Georgia Technology. Email: hua.wang@ece.gatech.edu. Phone: (404) 385-6003