



Miklos' Micros

Many of you do not know who I am. I was elected to serve as the Chair of the Pittsburgh Section IEEE for the 2002 year. Previously, I was the Vice-Chair and the Secretary for the Section, and also serve as the Chair for the Pittsburgh Section Magnetics Society.

Currently, I am employed at ANSYS, Inc as a Senior Development Engineer. ANSYS is a provider of computer aided engineering and design tools for the engineering community. As a member of the Mutliphysics Team, we develop software simulation tools for the analysis of coupled field phenomena, such as electromagnetics, electrical circuits, thermal, mechanical, and fluid dynamics.

Prior to ANSYS, I worked in a wide range of industries such as: large turbo and hydro generators, optical lenses and servo systems for CD drives and laser printers, geophysical measuring devices, magnetic tape drives systems for PC's, inverse magnetic field computation and artificial intelligence software for geophysical interpretation.

My education is in Electrical Engineering with a focus on power devices. I hold an MSEE from Technical University of Budapest and a Ph.D. in EE from the Hungarian Academy of Sciences, and was a research fellow at University of Toronto.

Many thanks are extended to our past chair, Phil Cox and the other volunteers of the Section. Please join us in our activities. We need your support, opinion, and contribution.

-Miklos Gyimesi

Speech Coding Research, Future Directions and Challenges

Dr. Sean A. Ramprashad, Agere Systems
Communications Systems Technology Lab



The field of speech coding has been traditionally dominated by work on compression, trying to achieve equal or better quality at lower and lower source bit rates. It has also been dominated by a focus on applications for the Public Switched Telephone Network and cellular networks.

The last decade however has seen a growing revolution in the networks, applications and end-points using coding technology. Networks have become highly heterogeneous, and applications and end-points have changed the nature of the signals being coded, reasons why coding is necessary, and the practical limitations of algorithms that can be deployed. These changes have opened a wealth of new research directions as designers move to re-balance the advantages of compression with those of other increasingly important features.

A snap-shot of the present state of development in the more traditional applications of speech coding will be presented. New research directions will be discussed at a high level, including: layered coding, stronger considerations of channel coding, multi-mode coding, stereophonic communications, and the links to the QoS of newer networks. Examples of research problems as well as audio demonstrations will be given throughout the presentation.

Sean A. Ramprashad received a B.S.E. degree summa cum laude in Electrical Engineering from Princeton University in 1991, and M.S. and Ph.D. degrees in Electrical Engineering from Cornell University in 1993 and 1996, respectively. Dr. Ramprashad was an intern with AT&T Bell Laboratories, a Member of Technical Staff at Lucent Technologies Bell Laboratories, as is now a Distinguished Member of Technical Staff in the Communications System Technology Laboratory of Agere Systems.

Place : 426 Benedum Hall, University of Pittsburgh

Date : February 18th, 2002

Program : 4:00 – 5:00 PM

For more information, please contact Luis Chaparro at (412) 624-9665 or by e-mail at chapparo@ee.pitt.edu.

Results of Pittsburgh Section IEEE Officers Election for 2002

Chair
Miklos Gyimesi

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Phil Cox
Larry Hornak

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Harry Hagerty

Secretary
Elena Schreiber

Nigel McQuin
Steve Swencki

Upper Mon Sub Section Officers
Chair
Kathleen Meehan
Secretary/Treasurer
Matthew Valenti

Vice Chair
George Trapp

2001-2002 Pittsburgh Section IEEE Program Calendar

Group/Society	September	October	November	December	January	February	March	April	May
ExecCom Miklos Gyimesi (412) 268-2308	20 Pitt	18 WVU	15 Point Park	20 Point Park	17 Point Park	21 Point Park	21 Point Park	18 Point Park	16 Point Park
Section Mtngs Miklos Gyimesi (412) 268-2308	22 Fall Picnic	22, 29 Wireless Tutorial	5, 12, 19 Wireless Tutorial			National Engineers Week		History Dinner	
Upper Mon Stephanie Caswell (304) 293-0405		29 Electrical Property of Flames							
Industry Applications Harry Hagerty (412) 487-8235									
Magnetics Miklos Gyimesi (412) 268-2308									
Computer Gerry Kumnik (412) 487-1430									
Communication Prashant Krishnamurthy (412) 624-5144		26 Photonic Switching	16 Wireless Internet						
Power Eng. Gregory Reed (724) 772-2158									
Membership Jim Karn (412) 732-9000									
Signal Processing Luis Chaparro						18 Speech Coding			
PACE Tom Dionise									

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