



Harry's Happenings

For the electrical industry, the past two years have seen many businesses in recession with losses in 2001 and 2002. Along with that, there have been work force reductions affecting many of the engineers in the Pittsburgh area. From what I hear, see and read in the media, 2003 is starting off much the same as the past two years. Although, we all hope that 2003 will be a turning point in the economy, we can't predict when that will occur. There is no question that it affects all of us in electrical engineering in the form of more work with less people.

For the IEEE and specifically the Pittsburgh section, I believe our task is to focus the chapters and the section on the needs of the members. This is one of the specific duties of the section chair in addition to keeping the section healthy and growing. To succeed in fulfilling these and other duties, the Pittsburgh section needs the help and assistance of the members to focus on ideas for meetings, training seminars and expert speaker lectures that are meaningful to the members. Meaningful here means knowledge value in developing professional skills to either help do your job more efficiently or acquire skills to get a new job. The good news for the section is that we have the resources to fund worthwhile seminars and speakers for the membership.

I will be attending the Region 2 meeting next month and would like to hear what the members would like the section to do in 2003. Please e-mail me at hhagerty@benshaw.com or any section officer.

-Harry Hagerty

Upper Mon Subsection

Some Practical Perspectives of Digital Communications

Dr. Shuzhan Xu, Agere Systems

This brief presentation gives an overview of digital communications from practical perspectives first. Five major components of digital base band modem design will be addressed: modulation, coding, synchronization, channel and systems. Some new research results concerning decoding schemes may also be presented later per seminar progress.

Shuzhan Xu is a system engineer in The Mobile Terminal Division of Agere Systems. His job functions include communication systems architecture, digital base band signal processing, and implementations. Focused on chipset development, he has conducted research on practical decoding schemes with some patent applications. Dr. Xu holds a PhD in Mathematics and a Master in Electrical Engineering.

Place: MER 113, West Virginia University, Evansdale Campus

Date: Feb. 24, 2003

Program: 4:00 – 5:00 PM

If you have any questions, or need more information, please contact Matt Valenti at (304) 293-0405 ext. 2508 or mvalenti@wvu.edu.



IndEEE 500 Robot Car Race



As part of National Engineer's Week activities held at the Carnegie Science Center, the Pittsburgh Section of the IEEE will conduct its Annual Robot Car Race on Saturday February 15th. The purpose of the day is to show students that science and engineering can be fun. Student groups from area middle schools register to compete in the race. Each group will work with a Lego Mindstorm kit and instructions on building their car. The group must construct the car and write a computer program with the Lego Mindstorm software to have the car successfully navigate the track. The track is a 500-cm long white strip consisting of an 'S' curve and a long straight section. Lights and photo-sensors on the front of the car shine down on the strip to detect the edges of the white strip and control the drive motors on the car to guide it down the track.

Volunteers are needed to help out at the race. Volunteers will help the students by answering questions, and offering suggestions while they build and program their cars. A working car and program will be available for the volunteers to refer to. Car construction begins at noon, and racing and awards presentation will be completed by 5:00 PM. Laptop computers are also needed for the afternoon. If you have a laptop computer that can be used please consider bringing it. For more information or to volunteer please contact Gerry Kumnic at (412) 487-1430 or gerrykum@ieee.org.

New Fellows in the Pittsburgh Section

Dr. Zoltan Joseph Cendes, Ansoft Corporation, Pittsburgh, PA

Application of finite element modeling to microwave guides, structures and circuits.

Dr. Stephen Edward Cross, Carnegie Mellon University, Pittsburgh, PA

Development and use of modern software engineering techniques in advanced systems.

Mr. John Joseph Paserba, Jr, Mitsubishi Electric Power Products, Inc. Warrendale, PA

Contributions to FACTS controllers in power systems.

Dr. Elias D. Towe, Carnegie Mellon University, Pittsburgh, PA

Contributions to nanostructure optoelectronic technology.

Prof. Jeannette M. Wing, Carnegie Mellon University, Pittsburgh, PA

Contributions to methods for software systems.

2002-2003 Pittsburgh Section IEEE Program Calendar

| Group/Society | September | October | November | December | January | February | March | April | May |
|--|----------------------------------|---|---|---------------|------------------|---|---------------|---------------|---------------|
| ExecCom Harry Hagerty (412) 492-0943 | 21 Boyce Park | 17 WVU | 21 Pitt Greensburg | 18 Point Park | 16 Point Park | 20 Point Park | 20 Point Park | 17 Point Park | 15 Point Park |
| Section Mtgs Harry Hagerty (412) 492-0943 | 21 Annual Fall Picnic | | | | | 15 IndEEE 500 Robot Car Race | | | |
| Upper Mon Matt Valenti (304) 293-0405 | | 17 COTS Visualization | | | | 24 Practical Perspectives Digital Comm. | | | |
| Industry Applications Harry Hagerty (412) 492-0943 | | 12-17 37 th Annual IAS Meeting | | | | | | | |
| Magnetics Miklos Gyimesi (412) 268-2308 | 18 Adv. Magnetic Materials | | | | | | | | |
| Computer Gerry Kumnik (412) 487-1430 | | 17 COTS Visualization | | | | | | | |
| Communication Prashant Krishnamurthy (412) 624-5144 | | | 22 Precision Alignment using GPS | | | | | | |
| Power Eng. Gregory Reed (724) 772-2158 | | | | | | | | | |
| Robotics Guy Nicoletti (724) 836-9922 | | | 21 Virtual Surgery | | | | | | |
| Signal Processing Pat Loughlin (412) 624-9685 | | | | | | | | | |
| EMBS Bob Brooks rbrooks@medrad.com | | | | | | | | | |

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