



IEEE Crosstalk



The Monthly Newsletter of the Mid-Hudson Section of the IEEE

Volume XXXIX, No 8, December 2000

Chairman's Corner

This letter is my last as Chair of the Mid-Hudson Section. It has truly been an honor and privilege to be able to serve the many dynamic people in the IEEE. My formal and informal association with the Executive Committee and members has been extremely rewarding, and I am proud to have been part of "building community" among professionals in our region.

A climate of dedication and teamwork among the elected and appointed Section Officers has been a key factor in the continued success of the Section. I thank these volunteers who have been instrumental in stepping forward and making things happen for the Section. The Mid-Hudson Section will continue to be well led by the new officers and is in an excellent position to participate in the resurgence of engineering in the Hudson valley.

I challenge you one more time to get involved in the many opportunities offered by the IEEE. In addition to leadership in Section and Chapter activities, there are many resources available for organizing technical events and promoting involvement through your workplaces, schools and colleges, and business contacts.

I will be seeking a new career after serving many years as a commissioned officer in the U.S. Army. During my Army career I have lived in Georgia, Oklahoma, Washington state, Alabama, Massachusetts, Germany, Korea, and England, but being at West Point for 5 years has allowed me to learn about the local community. I now consider this region to be "home". I hope to find an appropriate opportunity in this area, and continue to enjoy the professional ties and service afforded by the Mid-Hudson Section.

Please continue to support the **2001 Mid-Hudson Section Officers-Elect**:

- Chair:** William F. McCarthy
- Vice-Chair:** Jean R.S. Blair
- Secretary:** Casimer M. DeCusatis Jr.
- Treasurer:** David J. Dittmann, II
- Members at Large:** Larry Prescott, George Krembs, James Loy

Have a safe and happy holiday season, and thanks once again for your support and confidence in me and in the Mid-Hudson Section leadership!

Edward C. Shaffer, Chair
e.c.shaffer@ieee.org

REMINDER: Nov 14th meeting at 7 p.m., Multicast Media, 169 Myers Corners Rd, Bldg 169 Wappingers Falls, NY (Oct/Nov Crosstalk)

<http://www.ewh.ieee.org/r1/mid-hudson/index.htm>

Mid-Hudson Section Website

Mid-Hudson Section Leadership



- Chair:** Edward C. Shaffer
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- Corporate Relations:**
- Women in Engineering:** Visda Vokhshoori
- Life Members:**
- Graduates of the Last Decade:**

- Society Chapter Chairs:**
 - Power Society:** Hal Turner
 - Electron Devices Society:** Michael Hargrove
 - Computer Society:** Andreas Hieke
 - Education Society:** Kurt Webber



Contact Information

General: e.c.shaffer@ieee.org (914) 938-5584
wfmcc@us.ibm.com (914) 433-1634

December Meeting: Quantum Computing

PRESENTER: Dr. John A. Smolin
IBM T.J. Watson Research Laboratory
Yorktown Heights, NY

DATE: Thursday, December 7th, 2000

LOCATION: Room 144, Thayer Hall (Bldg 601)
West Point, NY
<http://www.usma.edu/PublicAffairs/wpmap.JPG>

TIME: 7:30 p.m.

QUANTUM COMPUTING AT THOMAS J. WATSON RESEARCH CENTER

How efficiently can a computer transform physical energy into mathematical work? Can we create a computer that would solve mathematical problems too complex to be solved by all of the computers in the world today even if they number-crunched for millions of years? And how can we send information over a network and be sure no one eavesdrops on our transmission?

Device miniaturization can continue for only a few more generations before quantum effects make it very hard to build circuits that behave like reliable classical switches. While problems of noise and reliability get worse, distinctively quantum effects appear that can be harnessed to achieve qualitatively new kinds of information processing. For example, if messages are sent with individual photons, message privacy and encryption become easier rather than harder, based now on basic laws of quantum physics rather than on mathematical assumptions.

To determine whether such quantum computers will work is part of the challenge ahead. Along with key university collaborators, IBM is at the forefront of exploring how quantum effects can be used to perform a variety of previously unsuspected and potentially useful schemes of information processing, including quantum cryptography, quantum teleportation and quantum error-correcting codes.

The Public is Invited

About the December Speaker

John Smolin is motivated mainly by an ambition to better understand the universe, and feels lucky to have been around at a time when the connections between information theory and physics are being understood.

When not working with his colleagues at IBM and elsewhere on physics of information, he likes tinkering with his cars, hacking on linux and exploring the relationship of computers and society.

- Years at IBM: 7
- Education: S.B. MIT 1989
Ph.D UCLA 1996

For more information on quantum computing, see:

<http://www.research.ibm.com/quantuminfo/>

http://www.research.ibm.com/resources/magazine/1998/issue_4/quantum498.html

<http://www.aro.army.mil/phys/qcm.htm>

<http://osogami.virtualave.net/researcher-e.html>

NEW COMMUNICATIONS IC COMPANY SEEKS DESIGNERS

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January 2001: Pattern for Progress Presents an Update on the Mid-Hudson Valley

PRESENTER: Mr. Mike DiTullo
President/CEO
Mid-Hudson Pattern for Progress

DATE: Thursday, January 25th, 2001

TIME: 7:30 p.m.

LOCATION: Central Hudson Newburgh Division HQ
410 Little Britain Rd
New Windsor, NY

DIRECTIONS:

From I 84

- 1- Exit I84 at Exit 7S (Union Ave, Rt 300, Stewart Airport)
- 2- South on Union Ave, Rt 300, 1.3 mi (across 17K)
- 3- Left onto Old Little Britain Rd. Go to end.
- 4- Right onto Little Britain Rd. Go 0.1mi. Office on right.
- 5- Enter side door. First door on left.

From TWY

- 1- Exit at Newburgh, Exit 17. Follow signs to Stewart Airport. Turn left onto Union Ave, Rt. 300 S.
- 2- Travel south on Union, 1 mi. to Old Little Britain Rd (Home Depot's on left)
- 3- See 3 - 5 above.

Central Hudson is across the road from Gretag Macbeth

MICHAEL J. DITULLO

Michael J. DiTullo is the President and CEO of Mid-Hudson Pattern for Progress, a nonprofit public policy, research, and planning institute. It was founded in 1965 by leaders from the public and private sectors, and now serves the nine county Hudson Valley region.

As the head of the Hudson Valley's premier regional public policy, research and planning institute, DiTullo has his pulse on the dramatic Renaissance underway in this nine-county area. From the privatization of Stewart International Airport to record employment and major new capital investment, this area is realizing its full potential as a region offering the ideal mix between business, urban, rural, agriculture and tourism.

A native of Poughkeepsie, Mike graduated from Poughkeepsie High School and from Dutchess Community College with an Associate Degree in Criminal Justice. Continuing his education while working full-time, he enrolled in classes at Pace University, RIT, and graduated from Empire State College with a Bachelor Degree in Economics.

In 1973, he opened a gourmet food market on Poughkeepsie's Main Mall, and went on to open four markets, at the same time becoming involved in community activities (Chairman of the Bicentennial Committee for the Italian Center, President of the Poughkeepsie Downtown Council, Chairman of the Main Mall Commission, United Way Volunteer, and a director of the Mid-Hudson Civic Center).

In the early 1980s, Mike worked as a consultant in the food industry, and in commercial real estate. Later, he was an Economic Development Specialist for Dutchess County

Southern Dutchess Exchange Club, and the Poughkeepsie River Front Commission. Mike chaired the first Poughkeepsie Riverfest as a member of the city Tricentennial Commission in 1987.

From 1986 to 1996, Mike was President and CEO of the Orange County Partnership. Under his leadership, over 200 corporations moved to or expanded in Orange County, adding 10 million sq. ft. of new commercial space, 22 business parks, 35,000 new jobs, and retail sales tripled to nearly \$3 billion per year. Fortune firms such as Anheuser Busch, Minolta, Baxter, International Paper, OSRAM / Sylvania, GE, Federal Express, NY Life and others invested nearly two billion dollars.

Mike has also been a Director on regional boards such as Orange County Arts Council, Hudson Valley Philharmonic, Orange County Community College, Hudson Valley Film and Video Office, Mid-Hudson Pattern for Progress, March of Dimes, United Way, Sullivan Partnership, Private Industry Council of Orange & Sullivan County, Foreign Trade Zone of Orange, Orange County Chamber of Commerce, Sullivan County Visitors Association, Vasser Brothers Hospital, and the Hudson Valley Council of the Boy Scouts of America.

Mike was cofounder and past president of Team Hudson Valley, a consortium of regional economic development organizations. He has published articles in many publications and has been quoted in the AP, New York Times, Wall Street Journal and other publications. He also appeared on CNN, PBS, regional electronic media.

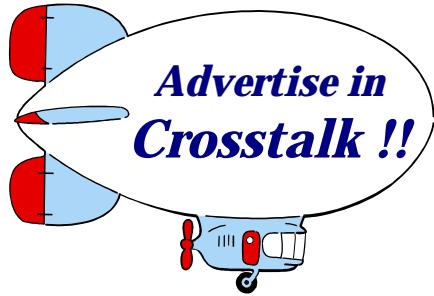
In 1996 Mike assumed the position of Vice President of Commercial and Industrial Lending at M&T Bank, Hudson Valley Division, initiating over \$80 million in loans and credit services. Mike was Vice President of Business and Community Development at Liberty-based Granite Associates and the Gerry Foundation, (responsible for a project team for a 1,500 acre mixed-use theme attraction at the original Woodstock site in Bethel. In the summer of 1998, the first event, "A Day in the Garden", attracted nearly 100,000 people from around the world.

Mike continues to manage Little League baseball – for 16 years in Poughkeepsie, the Walkill area and Town of Newburgh. Mike is married to the former Joan Lafalce and has two sons, Michael and Matthew. Mike enjoys family, military history, music, gardening, and New York Yankee baseball.

Pattern for Progress web site:

<http://www.pattern-for-progress.org/news.htm>

The Public is Invited
Refreshments will be Served



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IEEE, Mid-Hudson Section
L. Boland, *Crosstalk* Editor
42 Colburn Drive
Poughkeepsie, New York 12603

MARK YOUR CALENDARS!

NATIONAL ENGINEERS WEEK FEBRUARY 17-25, 2001

During the 2001 National Engineers Week, the Mid-Hudson Section will again participate with the Mid-Hudson Valley Council of Technical Societies in a number of important events. These include mall displays at the Poughkeepsie and Galleria Malls, and the annual Engineer Week Banquet.

The Engineers Week Banquet is scheduled for February 20, 2001. The planned speaker is Dr. Karl J. Puttlitz from IBM. Dr. Puttlitz is a Senior Engineer affiliated with IBM Microelectronics at Hudson Valley Research Park, East Fishkill, NY. He has been involved with the design, development and evaluation of interconnections for electronic packages since the early 1960's when IBM instituted its solder ball flip chip (SBFC) program. Tentative location is the Best Western Inn on Route 9 in Poughkeepsie; tentative cost \$25 per person.

For more details, or if you wish to volunteer, contact Vic Melville (vmelville@aol.com)