



# VIRGINIA MOUNTAIN SECTION NEWSLETTER

IEEE Region 3, Council 09, Section 65

February 2003

February 20, Clarion Hotel Roanoke Airport

## Spouses Night

### *China: Expectation and Experience* *Gail and Dave Geer*

#### A New Approach

Based on popular demand, Spouses Night this year will feature an earlier start with an extended social hour, complementary hors d'ouvers and cash bar, special dinner price for two, and a program of general interest on China

Date: Thursday February 20, 2003

Social: 6:00 PM  
Dinner: 7:00 PM  
Talk: 8:00 PM

Cost:	Individual	\$ 15.00
	Couple	\$ 20.00
	Student	\$ 8.00
	Student couple	\$ 10.00

Reserve by **5 PM Monday** Feb. 17

Mark Shepard (540) 387-8710  
[mshepard@ieee.org](mailto:mshepard@ieee.org)

Please specify number of attendees.  
*This is a great opportunity to meet and socialize with IEEE members in Southwest Virginia.*

#### Abstract

Nancy Chang's Chinese cooking class of 16 people from Roanoke and Blacksburg visited the cities of Beijing, Xi'an, Chong Ching, and Shanghai, as well as many smaller cities and villages. Along the way, they visited major tourist sites like the Great Wall and the Terra Cotta Soldiers. They also visited a silk factory, a pre-school, and the farmer's market in a small city. Part of the trip was spent on a ship traveling down the Yangtse River, through the region that will be affected by the Three Gorges Dam project. The trip provided an entirely new perspective on the Chinese people, both in big cities and in smaller towns. Gail and Dave will discuss their expectations, having grown up in 1950's US, and their experience, seeing China first hand.

#### Directions to Clarion Hotel Roanoke Airport

2727 Ferndale Drive NW  
I581 Exit 3 Hershberger Rd West  
1st Right onto Ordway Drive,  
¼ mile, Right Into Parking Lot.

#### Speakers

**Gail Geer** is a local sculptor, working in stone and cast metal. For more than ten years she has worked as a school nurse in Roanoke City where she provided health care to children at several city schools. Cooking has always been a passion, and for many years she studied Chinese cooking with Nancy Chang in Roanoke County. When Nancy and her husband Ted organized a three-week trip to China last May, she was eager to go.

**Dave Geer** is a recently retired GE engineer, and former chair of the IEEE Computer / Control / Industrial Electronics Chapter. He spent the last two years working on Steel Mill projects for mainland China. This gave him an opportunity to meet many Chinese engineers, and develop an interest in Chinese language and culture.

STUDENT PAPER CONTEST	ELECTION RESULTS	AWARDS
<p>Owing to snow on January 16, the January meeting was rescheduled to January 30. The weather was threatening again on January 30, but we persevered, and those braving the elements were treated to excellent presentations from students at VMI and Virginia Tech. Cash prizes totaling \$750 were awarded as follows:</p> <p><b>First Prize \$250</b></p> <p><b>Arshia Cont</b>, Virginia Tech <i>Audio Spectral Processing and Recognition: Implementation of a "Listening Machine"</i></p> <p><b>Second Prizes \$150 each</b></p> <p><b>Tsung-ta Ho &amp; Michael. Shealy</b>, VMI <i>Semiconductor Device Fabrication Study</i></p> <p><b>Brian Holt &amp; Jenny Dinneen</b>, VMI <i>Parking Guidance System</i></p> <p><b>Third Prizes \$100 each</b></p> <p><b>Farooq Ali</b>, Virginia Tech <i>Securing the AODV Ad Hoc Routing Protocol from the Black Hole Vulnerability</i></p> <p><b>Joshua Edmison</b>, Virginia Tech <i>Using Piezoelectric Materials for Wearable Electronic Textiles</i></p> <p>Congratulations and thanks to all of the participants</p>	<p>The results of the IEEE Virginia Mountain Section election of officers for 2003 is as follows:</p> <p>Chairman: Mark Shepard Vice Chairman: Shawn Addington Secretary/Treasurer: Cy Harbourt</p> <p>Executive Committee, Members at Large Dave Geer Dan Jackson Ira Jacobs Jim Squire</p> <p>Computer, Control Systems, and Industrial Electronics Societies Chair Dave Livingston</p> <p>Industrial Applications Society Chair Dave Stocker</p> <p>Microwave Theory &amp; Techniques, and Electron Devices Societies Chair Dain Miller</p> <p>Total number of ballots cast was considerably below that when ballots were mailed to all members. This year members were required to print out ballots from the VMS website and to return the ballots by postal mail. For next year, we will look into the possibility of electronic voting that will still meet IEEE election guidelines.</p> <p>New officers and newly appointed Committee Chairs are noted on the last page. Note that there are several openings, and volunteers are always welcome</p>	<p>The Virginia Mountain Section has several awards, Outstanding Engineer, Outstanding Engineering Educator, and Outstanding Service Award. We have not given either of the first two for some time. If you are aware of anyone who you think ought to be honored with any of these three awards please contact me, &lt;d.jackson@ieee.org&gt; and I will help you with the nomination.</p> <p>Dan Jackson, VMS Awards Chair</p> <p><b>MEMBERSHIP DEVELOPMENT</b></p> <p>Total IEEE membership as of December 31, 2002, was 382,483 members, a new all time high and the fifth year in a row that IEEE has achieved record membership. This exceeded the goal of 380,000 and was a total increase of 1.4% over 2001. Student membership also reached a new high of 72,328, an increase of 10.1% over 2001, well exceeding the goal of 67,000. However, the higher grade membership, that is everything except Student Members, declined by 1,518, an 0.5% decrease. We need to retain present members as well as encourage nonmembers to join the largest technical professional society in the world of which 62% are U.S. members.</p> <p>Locally the Virginia Mountain Section increased to 843 members at the end of 2002 compared with 733 in 2001, a 15.01% increase. [Editor's note: This database is unfortunately quite inaccurate, a problem that IEEE is attempting to deal with.] Again this was due mainly to the increase in Student membership from</p>

281 to 374, a 33.10% increase. The higher grade member increase was only 17 members, a 3.76% change. The Student membership is 44.4% of the total section membership.

### Membership Upgrades

If there is anyone who has been an Associate Member for more than six years and is interested in upgrading to full Member grade please contact me. I will be glad to discuss the process and review your qualifications to determine if they would be likely to meet the requirements.

Anyone who is Member grade who received a BS degree prior to 1993 and who is interested in becoming a Senior Member please send me a current resume. If you meet the experience requirements we can help you find the necessary endorsers.

Dan Jackson, Membership Development Chair d.jackson@ieee.org, 540-774-0484

### FIRST ROBOTICS

For the past several years the Virginia Mountain Section has been a sponsor of the Montgomery County Public Schools/Virginia Tech FIRST Robotics Team 401, Hokie GUARD. The following is an excerpt from a letter from Dr. Leslie Graham, Virginia Tech Supervisor and Instructor, FIRST Robotics Mentorship and Leadership.

“As a result of your support our team has successfully competed in both regional and national competitions over the past three years receiving finalist and division finalist awards at both levels. Even more importantly, our all-county team has tripled in size compared to where we began four years ago. We are pleased to report that this year we have added students from one our alternative schools, Wilson Avenue School

“...Team 401 is mentoring two rookie robotics teams, Team 1054 from Buckingham County High School, and Team 1096 from Radford University/ Pulaski County High School.”

“...We would also once again like to extend an opportunity for you to come and see the robot design and construction in progress... The students would love to show you firsthand what your support is providing them. We meet daily on Monday-Friday at Christiansburg High School between 6:00-9:00 PM and on Saturdays from 12:00-9:00 PM. It is very exciting to observe the enthusiasm and skills of the mentors and high school students as they work collaboratively on their robot.”

## 2002-2003 MEETING SCHEDULE

DATE	SPEAKER/TOPIC	MEETING PLACE
September 19	<b>Brian Lindholm</b> Six Sigma Methods at General Electric	Clarion Hotel Roanoke
October 17	<b>Daniel Stilwell</b> Enabling Technologies for Platoons of Cooperating Autonomous Underwater Vehicles	Best Western, Blacksburg
November 21	<b>David Stocker</b> LIDAR Technology for Fully Automatic Crane Operation	Clarion Hotel Roanoke
January 16 (postponed to January 30 owing to weather)	<b>Undergraduate Student Paper Contest</b>	Clarion Hotel Roanoke
February 20	<b>Spouses' Night, 2003</b> <b>Dave &amp; Gail Geer</b> <b>China: Expectation &amp; Experience</b>	Clarion Hotel Roanoke
March 20	<b>Kenneth Ferris</b> Economic Development in Southwest Virginia	Clarion Hotel Roanoke
April 17	<b>John Bay</b> DARPA Information Exploitation Office (IXO) Programs	Clarion Hotel Roanoke
May 15	<b>Plant Tour</b>	<b>TBD</b>

## IEEE Virginia Mountain Section

### VMS OFFICERS

**Chairman: Mark Shepard**  
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**Vice Chairman: Shawn Addington**  
<mailto:AddingtonJS@mail.vmi.edu>  
464-3961

**Sec./Treasurer: Cy Harbourt**  
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### VMS EXECUTIVE COMMITTEE

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**Dan Jackson**  
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**Ira Jacobs**  
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**Junior Past Chairman:**  
**Howard J. Moses**  
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953-5069

**Virginia Council Representative:**  
**David Geer**  
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### VMS CHAPTER CHAIRS

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**David Stocker**  
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**Industrial Electronics/Computer/Control Systems**  
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**Open**

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**Publicity :**  
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### NEWSLETTER

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**Contact Newsletter Editor to be added to  
VMS listserv**

**Anyone may submit material for the  
Newsletter**

**Deadline:**  
**Monday following each meeting**

Submit To: Editor

### Change of Address

US Mail: IEEE Service Center  
445 Hoes Lane, PO Box 1331  
Piscataway, NJ 08855-1331

<mailto:address.change@ieee.org>

Tel: 800-678-IEEE

Fax: 732-981-9667

IEEE Web: <http://www.ieee.org>

<http://services1.ieee.org/membersvc/coa/intro.htm>

(Changes are forwarded to the Newsletter)

### Visit the VMS WEB page:

<http://www.ewh.ieee.org/r3/virginia-mountain>

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- Links to IEEE, etc.
- Contributions welcomed - make them on-line.

**Webmaster: Bill Onesty**  
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**Note: All phone numbers listed above are Area Code 540 unless specifically noted otherwise.**