



# VIRGINIA MOUNTAIN SECTION NEWSLETTER

IEEE Region 3, Council 09, Section 65

April 2007

Thursday, April 19, Holiday Inn Hotel Roanoke Airport

## Students from Virginia Tech and VMI report and demonstration on the *Robot Design Competition at IEEE SoutheastCon*

### IEEE SoutheastCon Design Competition

A highlight of the annual IEEE SoutheastCon meeting, held this year March 22 –March 25 in Richmond was the Student Hardware Design Competition that provided a challenging game of robotics skill. To go along with March Madness the central theme this year was **BASKETBALL**, with a modified version of basketball played between two robots, with teams advancing to the next round of a double elimination competition. The competition required numerous engineering skills, from circuits to machinery, and from microprocessors to dynamics of systems.

The court was divided into two halves with a wall at center court that separated the two robots from each other. Each robot started the round in the designated starting point on its side of the court and was allowed to have three balls in possession for early scoring. Another location on each side of the court was designated as the “ball request zone.” A robot needed to travel to this location to request more balls. The balls were then

delivered to a third location, designated as the “rebound zone”.

The robots were required to request balls, catch the balls when dropped, shoot those balls at the hoop to score, and then repeat the sequence. However, a limited number of balls were available to be shared by both robots. Once these balls were used, no more were provided, and the two robots were in a race against each other as well as the clock.

Once a ball was collected, there were two ways to score, one being worth more points than the other. Any ball that is placed over the wall into the large net behind the hoop counted as a score. However, considerably more points were earned by shooting the ball through the smaller hoop.

Members of the VMI and Virginia Tech teams will report on their experiences at this competition, and will demonstrate their robots in action. The IEEE Virginia Mountain Section is pleased to be a supporter of the VMI and VT teams. Please join us on April 19 to learn of the results and experiences from Southeastcon, to support the future leaders of our profession, as well as to

meet and socialize with your friends and colleagues.

Date: Thursday April 19, 2007  
Social: 6:30 PM  
Dinner: 7:00 PM  
Talks & Demos: 8:00 PM

Cost: Members & Guests \$20.00  
Students \$10.00

Reserve by **5 PM Monday April 16**  
**Dr. Wilbur Dale (540) 464-7547**  
[mail to:dalewn@vmi.edu](mailto:dalewn@vmi.edu)  
Please specify number of attendees.

### Directions to Holiday Inn Hotel Roanoke Airport

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

### Links to Student Chapter Websites

VMI <http://ieece-vmi.org>

VT <http://www.ieece.vt.edu>

## Two Petition for Place on Annual Election Ballot

Two IEEE members are petitioning to be placed on the 2007 annual election ballot. Fellow Ralph W. Wyndrum Jr., who spoke at our IEEE VMS meeting in October 2006, is running for 2008 IEEE president-elect, and Fellow Roger D. Pollard for 2008 vice president-elect, Technical Activities. Eligible voting members who want to sign the candidates' electronic petitions can do so at [www.ieee.org/election](http://www.ieee.org/election).

## IEEE CONSULTANTS AFFINITY GROUP/VMS

The Virginia Mountain Section Consultant's Network Affinity Group has been officially approved by IEEE. The purpose of this Affinity Group is to share information concerning consulting opportunities, and to make a list of consultants and their areas of expertise available to potential employers.

The following is the current listing of consultants:

### 1. Tuttle International Tech. Marketing, Roanoke

(540)977 4007, Re Electromechanics, Robotics, and Intellectual Property Processes.

### 2. Squire Consulting,

[www.jimsquire.com](http://www.jimsquire.com). Biomedical engineering, instrumentation, endovascular stenting, patent litigation.

### 3. David H. Geer, PE Geer & Associates, LLC

540-774-4905  
d.geer@ieee.org  
Mathematical models for industrial processes.  
Software development and maintenance in C, C++, Ada, and Fortran.  
Website design, development, and maintenance.

### 4. Ingrid Burbey, IT Works Software Development.

[iburbey@vt.edu](mailto:iburbey@vt.edu)

Website: [filebox.vt.edu/users/iburbey](http://filebox.vt.edu/users/iburbey)  
Embedded, real-time systems, C, Assembly, Woman-owned Business Enterprise (certified in Virginia)

Anyone wishing to be added to this group, or desiring more information should contact Ed Tuttle, Affinity Group Chair, [tuttleone@earthlink.net](mailto:tuttleone@earthlink.net).

## IEEE-USA Releases Two Free E-Books

Two recent IEEE-USA survey reports have been released, free to IEEE members, as downloadable e-Books. The 2006 IEEE-USA Consultants Profile reports on the most recent IEEE-USA biennial fee survey, and provides the profile of typical self-employed and independent technical consultants, including education, experience, business practices, median earnings and hourly fees. The IEEE-USA Unemployment Survey 2006 report provides a comprehensive portrait of the IEEE's unemployed U.S. membership, and offers insights into the causes — and remedies — for loss of employment among technical professionals.

To obtain these books go to <http://www.ieeeusa.org/communications/eBooks/default.asp>

## Educational Activities Board Award Nominations

The IEEE Educational Activities Board is seeking nominations for its 2007 Education Awards. In addition to its seven existing recognitions, a newly-established annual award for Meritorious Achievement in Informal Education will be presented this year. The Meritorious Achievement in Informal Education award recognizes IEEE members who volunteer as librarians, docents, tour guides, or curators; or who act as technical advisors to or serve as board members of aquariums, museums, parks, zoos or similar settings where teachers, students, and the public benefit from their

professional expertise in science and technology. The deadline for all nominations is 30 April. For descriptions of the full list of the awards, visit

<<http://www.ieee.org/web/education/EAAwards/index.html>>.

## 2007 VMS OFFICERS

**Chairman: Jan Helge Bohn**  
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[cbonadeo@primephotonics.com](mailto:cbonadeo@primephotonics.com)

## VMS EXECUTIVE COMMITTEE

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**Junior Past Chairman: Jim Squire**  
<mailto:squirejc@vmi.edu>

## VMS Chapter Chairs

**Computer, Control Systems, & Industrial Electronics:**  
**Sandeep Shukla** [shukla@vt.edu](mailto:shukla@vt.edu)

## COMMITTEE CHAIRS

**Student Activities: Dave Livingston**  
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**Virginia Council: Jan Helge Bohn**  
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## NEWSLETTER

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Contact Newsletter Editor to be added to the VMS listserv

## WEBSITE

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

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