



VIRGINIA MOUNTAIN SECTION NEWSLETTER

IEEE Region 3, Council 09, Section 65

March 2004

Thursday, March 18, Clarion Hotel Roanoke Airport

Spouses Night *Digital Photography* *Kevin Hurley*

Continuing A Recent Tradition

Based on last year's success, Spouses Night this year will again 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 Digital Photography

Date: Thursday March 18, 2004

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** March 15
Cy Harbourt (540) 387-8941
<mailto:cdharbourt@ieee.org>
Please specify number of attendees.

**Directions to
Clarion Hotel Roanoke Airport**
2727 Ferndale Drive NW
I581 Exit 3 Hershberger Rd West
1st Rt. onto Ordway Drive,
¼ mile, Rt. Into Parking Lot.

Speaker

Kevin Hurley graduated from Morehead State University in 1981 with a BA in Photojournalism. He worked as the Photo Lab manager for Ewald Clark for 15 years. In 1996 Kevin opened his own Portrait Studio. He photographs about 25 weddings a year along with his numerous children, family and high school senior sessions during the week. Kevin runs his business in a 100 year old home in the historic Old Southwest District.

Photo from VMS Feb. Meeting

Come to the March meeting to see a digitally enhanced version of this photo.



Program

Kevin will present a short slide show of his work and then discuss how photography is changing with the introduction of the digital age. All his sessions are now digital.

For all of us who are experimenting with or thinking about digital photography, this will be a great opportunity to get the opinions and advice of an expert.

Digital Photorama

In addition to the talk, during the social hour we will have a slide show of digital photos taken by our members. If you would like your photos to be included in the show, please send up to five photos (JPEG format) as an e-mail attachment to ijacobs@vt.edu. Use separate e-mails if necessary to keep attachments below 5 MB. Alternatively, you may bring your photos on a CD to the meeting. Photos of local interest are preferred, but it's your choice. No prizes will be awarded, and the photographers won't be identified, but our speaker might comment on the photos during his talk.

STUDENT PAPER CONTEST

Our annual Undergraduate Student Paper Contest was held at our meeting on February 19.

First Prize \$300

E.P. Cooper*, J. B. Puvogel, M. R. Shealy, D. J. Smit, J. L. Wright*, M. R. York, VMI (* presenters)
Autonomous Fire-Fighting Vehicle



Josh Wright with the fire-fighting robot

Second Prize \$225

Matthew York*, Thomas A. Largi*, Paul A. Kuwik, and Dennis J. Crump VMI (* presenters)
Medical Internet-Aware Refrigerator



Mathew York

Third Prize \$150

Firmin Ndegas, Virginia Tech
Non-Oscillatory Spectral Reconstruction of Piecewise Continuous Signals

Honorable Mention \$75

Ajay Bhatia, Virginia Tech
Growth of Thin Film Alumina Nanopores on Si Substrates

Congratulations and thanks to all of the participants

From IEEE-USA

Unemployment Rate for Electrical Engineers and Computer Scientists Reaches All-Time High in 2003

WASHINGTON (26 February 2004)

The unemployment rate for U.S. electrical and electronics engineers (EEs) averaged a record 6.2% in 2003, a 2% increase over the previous year, according to data compiled by the Department of Labor's Bureau of Labor Statistics (BLS). The previous high of 4.3% was set in 1994.

The 2003 rate is more than three times the level in 2001 (2.0%) and over four times the figure for 2000 (1.3%). The average unemployment rate for all workers was 5.6% in 2003.

While recent EE unemployment has risen, the number of employed EEs has fallen. BLS reported 386,000 employed EEs in the second quarter last year vs. 349,000 in the fourth quarter, a decline of 37,000.

"The continuing high levels of engineering unemployment are not surprising considering the trend toward outsourcing of high-tech jobs overseas," IEEE-USA President John Steadman said. "This offshoring of high-paying jobs may look good on the bottom line of a quarterly financial report, but it's certainly not good for the skilled technical professional who can't find a job."

The 2003 jobless rate for computer scientists and systems analysts reached an all-time high of 5.2%, an increase of 0.2% over 2002 and four times as high as 1998's 1.3%. The rate also jumped 0.6% from the third to fourth quarters of 2003 to stand at 5.4%.

The quarterly EE jobless rate fell from 6.7% to 4.5% in the final quarter. The number of employed EEs, however, remained steady at 349,000. The discrepancy could be explained by discouraged EEs no longer counting as officially unemployed because they

either found work in another field, or just stopped looking. BLS reports that the number of unemployed EEs dropped from 25,000 to 16,000 from the third to fourth quarters.

The quarterly unemployment rate for computer hardware engineers jumped dramatically from 6.9 to 9.0%, and averaged 7.0% for 2003. Computer software engineers saw their jobless rate fall slightly from 4.6 to 4.5% (5.2% average for 2003); and computer programmers experienced a drop from 7.1 to 4.6% (6.4% for the year). The rate for aerospace engineers rose a percentage point to 5.0%, and finished at 4.8% percent for the year.

Comparisons to previous years are difficult because BLS revamped its occupational classifications and reporting conventions after 2002.

IEEE-USA is an organizational unit of The Institute of Electrical and Electronics Engineers, Inc., created in 1973 to advance the public good, while promoting the careers and public-policy interests of the more than 225,000 electrical, electronics, computer and software engineers who are U.S. members of the IEEE. The IEEE is the world's largest technical professional society. For more information, go to <http://www.ieeeusa.org>.

IEEE Virtual Museum Exhibit on World War II Technologies

The IEEE Virtual Museum now has an exhibit on World War II technologies. "World War II: How War Impacted Technology; How Technology Impacted War" includes a primer on the causes of the war, technologies that transformed the way war was fought, technologies that grew out of wartime urgency, and facts about the people who created the technologies. To view this exhibit, as well as other Virtual Museum Exhibits (Edison, Women & Technology, Microwaves, and Sound Recording), go to <http://www.ieee.org/museum>

SENIOR MEMBERS

We are pleased to report that two members of our section, Michael Hsiao and Hardus Odendall, both faculty members at Virginia Tech, were elevated to Senior Member in February.

Nominate a Senior Member Initiative

As part of IEEE's Senior Member Program, this program calls on Section and Society members to work together as a group to identify and nominate qualified Members for Senior Member grade. This initiative aims to: (1) simplify the application process, (2) offer financial incentives for approved Senior Member applications, (3) offer increased benefits for Senior Members, and (4) simplify the application

In 2003, IEEE elevated 2,106 Senior Members. Out of the 1,419 nominations submitted, 1,284 resulted in successful elevations to Senior Member Grade. 837 nominations came from Sections, 446 from Societies and one from Women in Engineering.

Nominating Sections and Societies are awarded \$10 for each Senior Member they nominate who is approved for elevation to Senior Member through 20 November 2004. To be credited as the nominating entity, the Section or Society must be entered on the nominating entity line of the application. There can only be one nominating entity for each elevation. Since 1999, all newly elevated Senior Members receive an engraved plaques and for 2004, all newly elevated Senior Members will receive a coupon worth up to \$25 for joining an additional IEEE Society.

Total cash award of US \$12,840 has been earned by 151 participating Sections, 36 Societies and *Women in Engineering*

The bottom line: If you received your BS degree by 1994, you may qualify for Senior Member. Application is very simple. Contact newsletter Editor for further Information.

2003-2004 VMS Meetings

September:
Gasoline Electric Hybrid Vehicles

October:
Tour of WDBJ Television Facilities



Enjoying pizza before the tour



On the tour

January:
FACTS Devices in Power Transmission

February:
Undergraduate Student Paper Contest

March:
Spouses Night: Digital Photography

Upcoming: April 15
Alternative Energy

May 20
Picnic & Astronomical Observatory visit in Lexington, VA.

Program for the remainder of the year is currently being planned. Suggestions for topics and speakers should be sent to Program Chair: Cy Harbour. We are particularly interested in getting more participation and involvement from local industry.

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