



VIRGINIA MOUNTAIN SECTION NEWSLETTER

IEEE Region 3, Council 09, Section 65

April 2002

April 18

State of the Fiber Optic Industry: Past, Present, and Future

Otto Szentesi

**Sr. Vice President, Director Hardware & Equipment Technology
Corning Cable Systems
Hickory, NC**

Abstract

Since the recognition of its potential in 1966, fiber optics has become ubiquitous in every segment of the telecommunications network: long haul, metro, access, CATV, and premises. A short review of past key milestones in the evolution of fiber optics will be followed by an examination of the recent telecommunications bubble and its subsequent melt-down. The talk will conclude with an overview of Optical Networks and the enabling of photonic component technologies that are the building blocks of tomorrow's communications infrastructure.

**Bill Onesty
New Webmaster**

**Still Needed
Newsletter
Editor
See Page 2**

INSIDE

Jan. Meeting Report	2
Chairman's Chat Room	2
Editor Still Needed	2
May meeting (Tour)	2
Wanted: PACE Chair	3
Membership Development	3
Software Dev. Certification	3
Update your IEEE Record	3
VMS Web Site	3
2001-2002 VMS Schedule	4
The Section	4

Reservations

Date: Thursday April 18, 2001
Social: 6:30 PM
Dinner: 7:00 PM
Talk: 8:00 PM

Cost: Member or Guest \$15.00
Student \$ 8.00

Clarion Hotel Roanoke Airport

2727 Ferndale Drive NW
1581 Exit 3 Hershberger Rd West
1st Rt. onto Ordway Drive,
¼ mile, Rt. Into Parking Lot.

Reserve by **5 PM Monday** April 15

Mark Shepard (540) 387-8710

mshepard@ieee.org

Please specify number of attendees.

Meeting Report

The Virginia Mountain Section of IEEE celebrated Spouses' Night on March 21, 2002. The speaker for the evening was Dr. Robert Trew, Head of the Electrical and Computer Engineering Department at Virginia Tech, who presented an enlightening review of the history and future of research in the United States. As a recent Director of Research for the U.S. Department of Defense, Dr. Trew provided the audience with great insight into research trends, including the increased interaction between industry and academia, as well as emerging initiatives in the area of nanotechnology.

... *Shawn Addington*

Chairman's Chat Room

Many thanks to Dr. Bob Trew for his fascinating insights into the history of government R&D funding. His expert perspective on the organizations, politics, and technology trends was well appreciated by the Spouses' Night group. An especially interesting correlation was demonstrated in that times of economic prosperity invariably follow major technology breakthroughs. And here those folks in Washington have always been taking all the credit!

Your section is still in need of a Newsletter Editor and PACE Chair.

These are critical positions as discussed in the March newsletter. The Newsletter Editor is the key communicator in reaching the membership with news and information. Likewise, the Chair of the Professional Activities Committee for Engineers (PACE) is the bridge between Sections and IEEE-USA.

The Executive Committee is pro-actively soliciting candidates, so don't wait to be contacted --VOLUNTEER. We welcome your becoming involved.

This is an exciting period for making IEEE activities more useful to you. In conjunction with SoutheastCon (April 5-7), Region 3 committees will be presenting and discussing ways for the IEEE to be more effective. At the Section level, your Executive Committee has initiated a participative effort to make our local activities more meaningful to the

membership. We aim to respond to your sentiments and possibly benefit by successes in other Sections. More about this in the next Newsletter.

Our April meeting will be a timely presentation on the state of fiber optics and photonics by Otto Szentasi of Corning. We are delighted that we were able to find a date where this industry leader could join us. Please respond by attending this last dinner meeting of the Spring schedule on April 18th. Our final meeting before the Summer break will be a plant tour of the Virginia Tech Transportation Institute. See you at these events! Howard Moses

...*Howard Moses*

EDITOR STILL NEEDED

VMS Members

As stated in last month's Newsletter, I will be relocating in the near future.

I am happy to announce that Bill Onesty, of Roanoke, an instructor at ECPI Technical College, has volunteered to take over the task of Webmaster for the Section.

Please note (Chapter Chairs and ExComm members in particular), Bill can be reached at:

mailto:bill_onesty@juno.com

The Section is still in need of someone to take over as Editor of the Newsletter.

The job, being a volunteer position, takes as much time as you care to devote to it.

The editor job for me, consumes a total of about two full days per month. Composing the Newsletter can take from 4 to 7 hours, it is then e-mailed to the printer in Christiansburg and picked up in one to three days. Envelopes are printed and labeled in the interim. Typically there are about 440 printed copies to fold and stuff, then deliver to the Blacksburg PO Bulk Mail facility (the PO can be changed). Ira Jacobs has been hand delivering about 50 to 60 copies to Tech to save postage.

If you are not personally interested, please talk to your colleagues. It would be nice to have a smooth transition and I do not know how long I will here to assist in that.

please call: (540) 552-0052
or <mailto:j.fennick@ieee.org>

John Fennick

...*editor*

May Plant Tour

Virginia Tech Transportation Institute

In anticipation of no May Newsletter, here are details of the plant tour.

Please save for your reference

May 16th plant tour of the Virginia Tech Transportation Institute.

Joint Meeting with the Industry Applications Chapter

Time 6:00 PM

DIRECTIONS

- Travel I-81 South to Christiansburg/Blacksburg
- Take Exit 118 B Blacksburg and Virginia Tech Exit to 460 West Stay in Left Lane (to Hospital and Blacksburg)
- Take U.S. 460 West to Blacksburg - stay in Left lane Pass the New River Valley Mall and commercial area (about 3-5 miles) (NOTE: road forks, stay Left on 460 West Business)
- Veer left onto 460 West Business to Blacksburg
- After the road veers, turn right onto Industrial Park Drive - second red light
- Turn right onto Transportation Research Drive
- Turn left on to Transportation Research Plaza (the road will curve to the right and Virginia Tech Transportation Institute (VTTI) will be straight ahead)
- Park in the upper level parking lot, the lobby is directly in front of the upper level parking lot.

Please call if you need further assistance (231-1500)

For information on VTTI and the Smart Road, please visit our website at

<http://www.vtti.vt.edu/>

...*Cy Harbour*

Wanted: PACE Chair

The VMS is in need of Professional Activities Committee for Engineers (PACE) chair. What does such an individual do? The Section PACE chair is the main contact between the Section and activities of IEEE-USA. These are activities which promote careers and policy related to the electrical engineering profession in the US. They include such things as government relations regarding Technology Policy in aerospace, communications and information, energy, medical, and research & development. Other areas are Career Activities related to employment benefits, intellectual property, licensure and registration, and workforce issues. In the area of Member Activities are the Alliance of Consultants Networks, awards & recognition, pre-college education, communications with members and periodic surveys. One of the responsibilities of the PACE chair has been to coordinate any Engineers Week activities in which the Section takes part. The PACE network consisting of PACE chairs from Regions, Sections, and IEEE Technical Societies ties all these together.

It is not expected that the VMS PACE chair would be actively involved in all of these areas of interest and activity but would provide a coordination and guidance for any which the Section deems important to the members of the Virginia Mountain Section.

If any one is interested in more information or would like to become part of the VMS ExComm as the PACE Chair, please contact Dan Jackson, d.jackson@ieee.org, 540-774-0484, or Howard Moses, Mmoses@ieee.org, (h)540 953 5069.

...Dan Jackson

Membership Development

Membership Development includes recruitment of new members, retention of present members, and elevation from one grade to a higher grade. Any Member who received a BS degree in an IEEE related field prior to May 1997 may be qualified to be elevated to Senior Member grade. The qualifications are ten years in the profession (a BS counts for three years), five years of significant performance, and three references from Senior Members of Fellows.

Significant performance does not mean Nobel prize accomplishment. Progression in job responsibility from entry level to team leader, manager, etc., publications, patents, and other such indications of significant performance are the acceptable criteria. Any one who believes that they meet the requirements is welcome to send a resume to me, Dan Jackson, d.jackson@ieee.org, 540-774-0484, and I will review it. If I think they qualify I will be glad to nominate them on behalf of the Virginia Mountain Section. In this case they will have to furnish the names of only two other references. The process is really very easy and the nomination form and reference forms can be filled out on line. Let me hear from you!

...Dan Jackson

editors note: To further explore PACE, the organization and activities, see many past memos from Dan at:

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

Software Development Certification

First-of-Its-Kind IEEE Computer Society Software Development Certification Examination Offered

After a rigorous three-year development process, the IEEE Computer Society will offer its new Certified Software Development Professional (CSDP) examination twice in 2002, 15 April to 30 June and 5 to 26 October. The new CSDP credential is intended for mid-level professionals. The 3.5-hour examination covers topics such as software design, software requirements, and software testing. Candidates are required to have a baccalaureate or equivalent university degree and a minimum of 9,000 hours of experience in at least 6 of 11 knowledge areas. The CSDP is designed to elevate educational standards and recognize those who demonstrate knowledge essential to the practice of software engineering.

The exam will be offered at more than 300 testing centers in the United States and Canada, as well as in select cities around the world

The Computer Society has also published a new two-volume resource guide for the

CSDP program, Software Engineering.

Further information:

<http://computer.org/certification>.

Update your IEEE Record

The IEEE will accept updates from volunteers (Officers, editors) and we occasionally note discrepancies, and send corrections to headquarters. However, this is a slipshod method at best and IEEE's general policy is that the member is responsible for his or her own information.

Each month when creating address labels and updating local records we notice numerous obvious errors in the data base e.g., area code 703.

When did you last update your records at IEEE? Have you moved, changed phone number, or e-mail address? Please take a moment to reflect and then act if need be.

There is a web based interactive "change of address" form at:

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

You can send an e-mail message to: addresschanges@ieee.org.

Call IEEE Member Services at
1-800-678-IEEE
(1-800-678-4333)

Mail changes to:
IEEE 445 Hoes
Lane PO Box 1331 Piscataway,
NJ 08855-1331 USA
Fax your changes to: 1-732-981-9667

In all cases you will need to include your member number for verification purposes.

The VMS Web Site

Browse to:

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

It has a wealth of information about the Section and the IEEE not generally available through other sources. It is also an easy way to access other IEEE National or Region Sites and services. Your feedback and input are always welcome. Send it to me:

...Bill

mailto:bill_onesty@juno.com

2001-2002 MEETING SCHEDULE

DATE	SPEAKER/TOPIC	MEETING PLACE
September 20 Spouses' Night, 2001	M. von Spakovsky Fuel Cell Technology	Clarion Hotel Roanoke
October 18* (Joint MTTD)	Louis J. Guido Semiconductor LEDs and Lasers: Past, Present, and Future	Clarion Hotel Roanoke
November 15	T. Rappaport Trends in Wireless Communications	Clarion Hotel Roanoke
January 17	Student Projects Details: TBD	Clarion Hotel Roanoke
February 21	Kumar Krishen New Technology Innovations for Space Applications	Clarion Hotel Roanoke
March 21 Spouses' Night, 2002*	Robert Trew Technology Future Directions	Clarion Hotel Roanoke
April 18	Otto Szentisi Fiber Optic Network Development	Clarion Hotel Roanoke
May 16	Plant Tour	TBD

* Changed

IEEE Virginia Mountain Section

VMS OFFICERS

Chairman: Howard J. Moses
<mailto:Mmoses@ieee.org> (540) 953-5069
Vice Chairman: Mark Shepard
<mailto:MShepard@ieee.org> (540) 387-8710
Sec./Treasurer: Shawn Addington
<mailto:AddingtonJS@mail.vmi.edu> (540) 464-3961

VMS EXECUTIVE COMMITTEE

Bill Tranter
<mailto:btranter@vt.edu> (540) 552-0759
John Fennick
<mailto:j.fennick@ieee.org> (540) 552-0052
Ira Jacobs
<mailto:ijacobs@vt.edu> (540) 231-5620
David Livingston
<mailto:d.livingston@ieee.org> (540) 464-7545
Junior Past Chairman:
Dave Kingma
<mailto:dkingma@ieee.org> (540) 961-2200
Virginia Council Representative:
David Geer
<mailto:d.geer@ieee.org> (540) 387-7359

VMS CHAPTER CHAIRS

Industry Applications
Cy Harbourt
<mailto:tallswimr@aol.com> (540) 387-8941
Industrial Electronics/Computer/Control Systems
David Geer
<mailto:d.geer@ieee.org> (540) 387-7359
Microwave Theory & Techniques/Electron
Dain Miller
mailto:dain_miller@ieee.org (540) 563-3998

COMMITTEE CHAIRS

Awards:
Ira Jacobs
<mailto:ijacobs@vt.edu> (540) 231-5620
Education:
Russell Churchill
<mailto:arcova@swva.net> (540) 731-0655
Membership Development:
Dan Jackson
<mailto:d.jackson@ieee.org> (540) 774-0484
Nominations:
Dave Kingma
<mailto:dkingma@ieee.org> (540) 961-2200
PACE :
 Vacant
Program :
Mark Shepard
<mailto:MShepard@ieee.org> (540) 387-8710
Publicity :
Dave Kingma
<mailto:dkingma@ieee.org> (540) 961-2200
Student Activities:
David Livingston
<mailto:d.livingston@ieee.org> (540) 464-7545

NEWSLETTER

Editor: John Fennick
<mailto:j.fennick@ieee.org> (540) 552-0052
 e-mail Newsletter Subscription

Go to the VMS Web Site page:
<http://www.ewh.ieee.org/r3/virginia-mountain/misc/SignUpForm.html>

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://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>

- Sign on to our mailing lists.
- Section/Chapter meeting notices, and reports.
- Past issues of the Newsletter,
- PACE Patter, etc.
- Articles, organizations, and activities affecting our profession.
- Suggest Meeting Topics and Speakers.
- Links to IEEE, etc.
- Contributions welcomed - make them on-line.