



VIRGINIA MOUNTAIN SECTION NEWSLETTER

IEEE Region 3, Council 09, Section 65

January 2009

Thursday, January 22, Holiday Inn University-Blacksburg
Discussion of
**Technology, Economic and Social Issues
in the Transition to Digital TV**

led by

Professor Ira Jacobs

**Electrical and Computer Engineering Department
Virginia Tech
Blacksburg, Virginia**

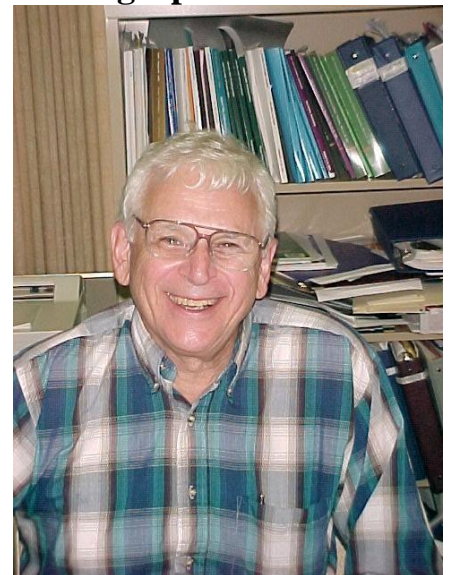
Abstract

This will be an open discussion (rather than a formal talk) of issues being faced in the transition of broadcast television to digital TV. Some of the questions that may be addressed include:

- Should the mandated February 17 cessation of the broadcast of analog television be delayed?
- What are the technological advances that now allow the transmission of a digital HDTV signal, or multiple standard definition TV signals within the 6 MHz frequency allocation of a broadcast TV channel?
- Why is it necessary (or at least desirable) for broadcasters to relinquish the additional channel they temporarily received for the simultaneous transmission of analog and digital TV signals?

- Why not only a converter box will be needed to allow old TVs to receive off-the-air digital TV transmission, but (in many cases) improved antenna systems will also be required?
- How should this be paid for? Possible sources of revenue include the government auctioning of UHF spectrum that is being released. Also, should TV stations pay higher broadcast licensing fees for the added value of the exclusive spectrum that they have, and CATV operators pay higher property taxes for the added value of their cable plant resulting from DTV?
- Should there be a national policy of moving towards universal broadband access, and should TV services be part of this plan?

Biographical Sketch



Dr. Ira Jacobs has been Professor of Electrical Engineering at Virginia Tech since 1987. From 1987 to 2007 he directed research on a broad range of telecommunications and fiber optic projects, and has taught 15 different courses. He was Interim Head of the ECE Department in AY 1994-1995, and has been a member of the FCC

Technological Advisory Council. Since 2007 he has been on long-term disability leave from Virginia Tech.

Dr. Jacobs received B.S. in 1950 from City College of New York, and a Ph.D. in Physics from Purdue University in 1955. He was at AT&T Bell Laboratories from 1955-1987, during which time he directed development projects in digital transmission on metallic and fiber optic cables. He also had considerable involvement in television transmission on fiber, including directing developments of an analog system used at the 1980 Winter Olympics in Lake Placid, NY, and a digital system used at the 1984 Summer Olympics in Los Angeles. He has given talks at many professional meetings including the National Association of Broadcasters and the National Cable Television Association. He was elected a Fellow of the IEEE in 1981, and is currently a Life Fellow. He was a member of the Executive Committee of the IEEE Virginia Mountain Section for many years and received the VMS Outstanding Service Award in 1998 and 2003.

Date: Thursday, January 22, 2009

Social: 6:30 PM

Dinner: 7:00 PM

Talk: 8:00 PM

Cost:

Members & Guests \$20.00

Students \$10.00

**Reserve by 5 PM Monday
January 19, 2009**

Dr. Wilbur Dale (540) 464-7547

[mail to:dalewn@vmi.edu](mailto:dalewn@vmi.edu)

Please specify the number of attendees.

**Directions to Holiday Inn
University - Blacksburg**

900 Prices Fork Road

I-81 S

Exit 118 CBA

Take B to US 460 W

460 W about 8 miles to Prices Fork Road exit (one exit past Virginia Tech exit). Take first Prices Fork Rd. exit (towards Downtown) and the Holiday Inn will be on your left just past the first traffic light.

Student Chapter Websites

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

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

Electricity Merit Badge Technical Manager Needed for Jamboree

The 100th Anniversary of the Boy Scouts of America will attract 40,000 young people from the USA and several other countries to Ft. A. P. Hill, VA for the 2010 National Scout Jamboree. The IEEE emeritbadge.org Project, which started in the IEEE Richmond Section in 1981, is sponsoring the Electricity Merit Badge Booth and the Electronics Merit Badge Booth at the Jamboree. The Jamboree will be held 26 July 2010 – 4 August 2010 at Ft. A. P. Hill, VA. A volunteer is needed to serve as the Electricity Merit Badge Technical Manager at the Jamboree. If you are interested in this volunteer position, please contact Ralph W. Russell, II at emeritbadges@ieee.org or (804) 291-7667.

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[mail to:dalewn@vmi.edu](mailto:dalewn@vmi.edu) 464-7547

Vice Chairman: Chris Bonadeo

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robert.hendricks@vt.edu

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hmoses@ieee.org

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tutleone@earthlink.net

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Helge Bohn

bohn@ieee.org

VMS CHAPTER CHAIRS

**Computer, Control Systems, &
Industrial Electronics:**

Lynn Abbott abbott@vt.edu

NEWSLETTER

Editor: Dave Livingston

d.livingston@ieee.org

540-464-7545

Contact the newsletter editor to be added to the VMS listserv.

WEBSITE

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

Webmaster: Chris Bonadeo

cbonadeo@verizon.net