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January 2008

Rock River Valley Section

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Event

Sense

The Institute of Electrical and Electronic Engineers, Inc.

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RRV Section and IAS Chapter Meeting

# The Electric Power Industry and Climate Change

**WHEN** Thursday, January 31,  
2008

## WHERE

Rock Valley College, Woodward Technology Center, Rooms 117/119. I-90 to Riverside Blvd., exit and go west to Mulford Rd. Go south to 2nd light, turn east into RVC. Follow road to left to last building on right.

## AGENDA

6:00 PM Networking  
6:30 PM Dinner  
7:30 PM Presentation

## Program

The interaction of the electric power industry with climate is manifested in both the effect that severe weather has on the power system and the contribution of electric power to the production of greenhouse gases (GHG). It is estimated that in the United States the electric power industry provides about 40% of the total CO<sub>2</sub> emissions. In response to increasing concerns over global climate change, this seminar will

discuss a variety of the issues associated with the interaction between the electric power industry and global climate change.

## Speaker

**Tom Overbye** is the Fox Family Professor of Electrical and Computer Engineering at the University of Illinois at Urbana-Champaign (UIUC). He received his BS, MS, and Ph.D. degrees in Electrical Engineering from the University of Wisconsin-Madison in 1983, 1988 and 1991 respectively. Prior to joining UIUC in 1991 he was employed with Madison Gas and Electric Company from 1983 to 1991.

## MEAL INFORMATION

Dinner will feature a beef, chicken and vegetable Chinese Buffet. The costs are: member: \$5, non-member: \$10, student members: \$2, and student non-members: \$3. Please make your **dinner reservations** by calling **Ginger** at **815-394-5696** or sending her an email ([\[hs.utc.com\]\(mailto:hs.utc.com\)\) by \*\*Monday, January 28, at 5pm\*\*. Please include the following information: your name, phone number, email address, IEEE member number, and choice of entree. Unemployed members may call the treasurer for special arrangements.](mailto:ginger.spinasant@</a></p></div><div data-bbox=)

## NOTE

The meeting is open to the general public. You need not be an IEEE member to attend. Guests are welcome. Please call Ginger at 815-394-5696 for questions.

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## **IEEE Chicago/Rockford Consultants' Network Meeting**

### **\*\* A joint Affinity Group of the IEEE Chicago and Rock River Valley Sections \*\***

The next meeting will be on Monday, January 21, 2008. The optional informal dinner is at 6:15 PM at Bakers' Square, 270 E. Northwest Highway (corner of North Court), just south of the library, and the meeting at 7:30 PM at the Palatine Public Library, 700 North Court, Palatine, IL 847-358-1216. Please go to <http://ewh.ieee.org/r4/chicago/cn/> for more info. The subject is "How To Find Clients for Consultants, and How to Find Employment if You Need a Job" and the speaker is Dr. Gary Blank.

On March 31, 2008, David Burke, a regional consultant for Fidelity Investments, will present information on various options that a self-employed person or a small business owner has for retirement planning. David provides onsite financial education to organizations throughout the greater Chicago area on behalf of Fidelity Investor Centers. He will give us the highlights of available programs that allow those self-employed and small business owners to shelter income and build up a retirement nest egg. He is an expert in helping investors understand their income and investment needs and the strategies to address them. His presentation will include time to answer our questions.

## **February RRVs Meeting Preview**

The Rock River Valley Section Executive Committee is very pleased to provide a dinner meeting with Congressman Don Manzullo. Don will discuss national legislation activities, such as the ones cited below. Please plan on joining us.

- Legislation affecting Innovation/Technical advancement (Patent, Trade, etc.)
- Education programs/activities that address engineering education and preparation
- Advanced Technology projects within the district
- Other items associated with Industrial applications within our area

## **November RRVs Meeting Recap**

The IEEE-RRVS November meeting was held on the campus of NIU. The meeting was sponsored by EMI Chapter and NIU student branch. There were about 50 people that attended the meeting with good representation from NIU students, local companies such as Hamilton Sundstrand and Ingenium Testing in Rockford, and Honeywell in Freeport. The speaker was Harry Skinner from Intel Corporation in Portland, OR.

The subject of Mr. Skinner's presentation was on the risk of platform generated interference. There is growing trend to have multiple radios in one wireless device such as cell phones with Bluetooth, combined Cellular with Wi-Fi devices, and so on. Platform noise can severely impact wireless performance and will get worse because of more victim radios, higher GHz sources, and ultra mobile devices (UMD) that force radios closer to noise.

When interference enters the receiver, it can desensitize the receiver, reducing the performance, with range reduction by as much as 50% due to platform noise. Wireless sensitivity requirements must be orders of magnitude more stringent than EMI regulations.

Platforms should be designed with radios in mind (making platforms radio friendly such as by reducing emissions from clocks) and radios should be designed with the platform in mind (making radio platforms robust.) Not all platform noise is created equal and not all platform noise is narrowband, hence platform noise properties must be comprehended by radios. As wireless technologies continue to advance, wireless convergence and coexistence will become even more important in everyday life. Effective methods for testing the ability of multiple wireless technologies to operate simultaneously within the same device and/or environment are needed to ensure that these devices perform as expected.

## **2008 IEEE RRVS Executive Committee**

<p><b>Joe Etminan</b> Chair joeetminan@ieee.org 815-921-3058</p>	<p><b>Paul Hofmann</b> Vice Chair, paul.hofmann@ hs.utc.com 815-226-3876</p>	<p><b>Larry Wachowiak</b> Secretary l.wachowiak@ieee.org 815-397-9090</p>	<p><b>Adrian Vandergrift</b> Treasurer aevandergrift@ieee.org 815-226-2518</p>	<p><b>Jitendra Solanki</b> PACE &amp; MD Chair j.solanki@ieee.org 815-394-5675</p>
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<p><b>Bob Parro</b> Newsletter Editor b.parro@ieee.org 815-877-6670</p>	<p><b>Alkesh Patel</b> IAS Chapter Chair alkesh.patel@ieee.org 815-394-2487</p>	<p><b>Prof. Don Zinger</b> NIU St Br Counselor d.zinger@ieee.org 815-753-0540</p>	<p><b>Nolan Wanner</b> Member-at-large n.wanner@ieee.org 815-394-5922</p>	<p><b>Neal Clements</b> PELS Chapter Chair n.clements@ieee.org 815-226-6182</p>
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### **Northern Illinois University Student Branch Officers**

<p><b>Sameer Parikh</b> Chair</p>	<p><b>Terry Johnson</b> Vice Chair</p>	<p><b>Mohsin Chowdhury</b>—Treasurer</p>	<p><b>Mohammad Bukhari</b> Secretary</p>
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*Messages for student officers can be left at the NIU Dept of Electrical Engineering, (815) 753-9974 or e-mail at sb.niu@ieee.org*

***The Rock River Valley Section gratefully acknowledges the following companies and colleges for supporting Section Officers:***

***Hamilton Sundstrand • Northern Illinois University •  
Rock Valley College • River North Solutions***

**Javvad Qasimi**  
GOLD Chair  
javvad@  
ieee.org  
815-235-5547

**Jamal Shafii**  
EMI/EMC  
Chapter Chair  
jamal.shafii@  
hs.utc.com  
815-394-5676

**Byron Mehl**  
Computer/  
Control Sys-  
tems Chair  
byron.mehl@  
hs.utc.com  
815-394-2991



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**RRVS Calendar**

<b>January RRVS Section Meeting</b> .....	<b>January 31</b>
"The Electric Power Industry and Climate Change", Rock Valley College, Rockford, IL	
<b>February RRVS Section Meeting</b> .....	<b>February 21</b>
"Congressman Don Manzullo on Legislation Activities", Rockford, IL	
<b>March RRVS Section Meeting</b> .....	<b>March 27</b>
TBD, Rock Valley College, Rockford, IL	
<b>April RRVS Section Meeting</b> .....	<b>April 24</b>
Tour of Ingenium Testing, Rockford, IL	
<b>May RRVS Section Meeting</b> .....	<b>May 29</b>
RRVS Election/Picnic, Hamilton Sundstrand Park, Belvidere, IL	


# Rock River Valley Section Chapters




Industry Applications Society Chapter  
*Established 1992*



Joint Computer/Control Systems Society Chapter  
*Established 1995*



Power Electronics Society Chapter  
*Established 1996*



Electromagnetic Compatibility Society Chapter  
*Established 2007*

**Time-Sensitive Material**

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