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November

Rock River Valley Section  
[www.ieee.org/regional/section/rock\\_river/](http://www.ieee.org/regional/section/rock_river/)

Event

Sense

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The Institute of Electrical and Electronic Engineers, Inc.

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RRV Section/St Branch & Power Electronics Chapter Meeting

## ELECTROMAGNETIC COMPATIBILITY

### When

November 18, 1999

### Where

Northern Illinois University, DeKalb, IL; Engineering Building Auditorium, Room 101. Please call Don Zinger at 753-0540 if you need directions from outside DeKalb.

Parking will be allowed in the engineering parking lot behind the engineering building after 5:00 PM at no charge.

### Agenda

6:00 PM Social & Tours  
6:30 PM Dinner  
7:30 PM Program

### Program

With the proliferation of electronic systems throughout the modern world electronics engineers need to concern themselves with the prospect that the products they design do not create harmful interference to other operating systems. Further, properly designed products and subsystems of those products must not be susceptible to the unwanted or unpredictable electromagnetic environment that surrounds them. Many of us have witnessed "snow" on the TV caused by the operation of a "sparking" electric motor.

about citizen band or ham radio transmissions coming over a PA system? Other examples abound. The lack of electromagnetic compatibility may be , life threatening. This seminar focuses on a few concerns that should be noted prior to bringing a product to its intended user. With proper attention EM interference may be avoided through inherent system design. Precautions and fixes are discussed.

### Speaker

From the late 1960's Dr. Vincent McGinn has maintained a keen interest in electromagnetic effects on electronic equipment. In 1969 he entered active duty in the United States Air Force (USAF) after receiving the BE/MS degrees in electrical engineering from New York University. Within USAF he was responsible for resolving numerous Electromagnetic Compatibility (EMC) concerns at the NORAD Cheyenne Mountain Complex, US government navigation and radar installations as well as airborne systems which include the F-4C, B-52G/H, B-1, KC-135, F-16 and F-15. He became the EMC officer for the F-15 and additionally headed the avionics analysis of the captured MIG-25 Foxbat.

Dr. McGinn was a Senior Staff Scientist at Rockwell International

where he developed low observable materials and antennas for the F-117 and B-2 aircraft. He also pioneered swept frequency measurement techniques for radar cross sections (RCS).

From 1996 to present he serves as chairman of electrical engineering at Northern Illinois University. Dr. McGinn received his Ph.D. in 1985 from the Pennsylvania State University under Dr. Dale M. Grimes. Concurrently he discovered three new quasars.

### Door Prizes

Sponsored by RRVS

### Meal

Dinner will be a Chinese buffet supplied by Yen Ching of DeKalb. Please make your dinner reservations by **calling Jennifer at 815-753-9974 by Tuesday Nov. 16.** (Please include email address in the information you provide Jennifer - thanks). The cost of the dinner is **\$2 for student IEEE members, \$5 for other IEEE members and \$10 for non-members.** Unemployed members may call one of the officers for special arrangements.

### Note

The meeting is open to the general public. You need not be an IEEE member. Guests are welcome. However, please call to enable us to make appropriate arrangements.

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## Rock Valley College Spring 2000 Engineering Courses

Computer Graphics  
MWF 11:00AM  
Randall Barnhart

Computer Graphics  
MWF 01:00PM  
To be Announced

Statics and Dynamics  
MTWTH 10:55AM  
Wolfram Meingast

Engineering Circuit Analysis  
MW 12:00PM

### Sept RRVs Mtg Recap

Prof. Malik Elbuluk from the Univ of Akron gave an excellent overview on the tradeoffs and trends of motor drive technologies, including motors, drives, power switches, control strategies. It was a very thorough perspective of relevant issues in this area of design. Shown with Prof Elbuluk in the picture is RRVs Chair Don Zinger. Prof Elbuluk has agreed to send a copy of his presentation to us. If you are interested in obtaining a copy, please contact Vietson Nguyen at [aaejvn@snds.com](mailto:aaejvn@snds.com).

## Chair's Corner

are well into the fall season. Most of the leaves have fallen from the trees exposing bare branches to the cool autumn winds. The night has overtaken the darkness and we start to prepare for the cold winter ahead.

Engineers are well known for preparing for things to come. Whether by nature or by training, they seem to always be getting ready for what will be coming next. Our plans may not always work out as hoped. (Y2K?) We do our best, and generally we straighten out the problems in the long run.

Last month, based on the efforts of our members, the general meeting went quite well. Dr. Elbuluk's presentation on Electric Drives seemed well received and generated considerable discussion from the audience. I would like to thank Vietson Nguyen for making the arrangements for the speaker and Larry Wachowiak for finalizing the arrangements for the meeting place.

Plans for this coming meeting are well on the way. We will have the annual meeting at the NIU engineering building. The presentation this time will be electromagnetic compatibility, something we all made need to plan for in the near future. The presenter is a well-known expert in the field.

I hope you will help us with our planning. You can do this by let-

ting us know what topics are of interest to you, or becoming an active part of the executive committee. We are always looking to see how we can make the RRVs serve you better. Send me an email with your ideas—[d.zinger@ieee.org](mailto:d.zinger@ieee.org).

## Chicago/Rockford Consultants Network Meeting

The next meeting will be on Monday, November 22. Dinner is 6:15 PM at Bakers' Square (corner of US 14 Northwest Highway and N. North), and the meeting at 7:30 PM at the Palatine Public Library (700 North Court, Palatine, IL 847-358-1216). Ben Miller will give a presentation on Electrical Acci-

## No October RRVs Meeting

Due to unavailability of a Y2K speaker, they tell us they're too busy at the moment, we had to cancel the October RRVs meeting. We are exploring the possibility of doing something similar in early December.

## Submissions to *Event Sense*

Send articles and job ads to the *Event Sense* editor, Bob Parro, via e-mail (preferred), or fax. Job ads will run for two consecutive months. Contact the *Event Sense* editor if the ad needs to run longer. Please make submissions by the twenty-fifth of the month. All submissions are subject to editing for style, clarity, and space considerations.

e-mail: [b.parro@ieee.org](mailto:b.parro@ieee.org)

**RRVS Executive Committee**

(l-r) **standing:** Larry Wachowiak, Treasurer; Hassan Mansir, ExCom member on leave; Don Zinger, NIU Student Branch Counselor; Matt Zimmer, Secretary and IAS Chapter Vice Chair; Roger Caruana, now moved out of the section; **seated:** Caio Ferreira, Former Past Section Chair and current IAS Vice President, Bob Parro, Joint Computer/Control Systems Chapter Chair & Past Section Chair; Bill Barber, ExCom member; Jim Buerosse, IAS Chapter Chair; Paul Peterson, former ExCom member. (not shown is Vietson Nguyen, IAS Chapter Chair)

**The Rock River Valley Section would like to give recognition to the following area company and university for supporting Section Officers:**

**Hamilton Sundstrand • Northern Illinois University**

### Rock River Valley Section of the IEEE 1999-2000

[W W W : [www.ieee.org/regional/section/rock\\_river/](http://www.ieee.org/regional/section/rock_river/)]

#### Elected Executive Committee

Chair	Prof. Don Zinger	d.zinger@ieee.org	(815) 750-0540
Vice-Chair			
Secretary	Matt Zimmer	m.zimmer@ieee.org	(815) 394-3456
Treasurer	Larry Wachowiak	l.wachowiak@ieee.org	(815) 394-5676

#### Appointed Executive Committee Chairs

IAS Chapter Chair	Jim Buerosse	j.buerosse@ieee.org	(815) 226-6078
IAS Chptr. Vice Chair	Matt Zimmer	m.zimmer@ieee.org	(815) 226-3456
Comp/CS Chapter Chair	Bob Parro	b.parro@ieee.org	(847) 490-6402
PELS Chapter Chair	Vietson Nguyen	aaejvn@snds.com	(815) 394-3230
Educational Activities	Joe Etminan		
Technical Activities			
Membership			
Awards			
Publicity, Newsletter Editor	Bob Parro	b.parro@ieee.org	(847) 490-6402
Nominations			

#### Northern Illinois University - Student Branch Officers

St Br Counselor	Prof. Don Zinger	d.zinger@ieee.org	(815) 753-0540
St Br Chair	Jamie Phillips		
St Br Vice-Chair	Michelle Marotta		
St Br Secretary	Rob Reeder		
St Br Treasurer	Ryan McMillin		

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](mailto:sb.niu@ieee.org)



Rock River Valley Section  
Established 1947

**Electronic IEEE Membership Application**  
An electronic on-line application is available at  
[www.ieee.org/join.html](http://www.ieee.org/join.html).

## Calendar

**November Section Meeting/Seminar ..... Nov 18**  
Electromagnetic Compatibility, at NIU in DeKalb, IL



Joint Computer/  
Control Systems  
Society Chapter  
Established 1995



Industry  
Applications  
Society Chapter  
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Power  
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Society  
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## Time-Sensitive Material

### Inside This Issue

- November Section Meeting Notice .....1
- RVC Spring 2000 Engineering Courses ..... 2
- Sept RRVV Meeting Recap .....2
- Chair's Corner ..... 2
- No October RRVV Meeting ..... 2
- Chicago/Rockford Consultants Network Meeting .....2
- RRVV Website & Officer Contact Information ..... 3
- Calendar ..... 4