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March 1997

Rock River Valley Section  
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 & PELS Chapter Mtg

# Advances in Distributed Power Systems for Electronic Equipment: Applications, Converters, & Components

**When** March 27, 1997

**Where** Rock Valley College, Technology Center, Room 117. Enter from Mulford, just north of Springbrook Rd.

**Agenda** 6:00 PM Social Hour  
6:30 PM Dinner - Buffet  
7:30 PM Presentation

**Speaker** Dr. Robert L. Steigerwald received the B.Sc. degree with distinction in electrical engineering from Clarkson College of Technologies, Potsdam, NY, in 1967, and the M.E. and Ph.D. degrees from Rensselaer Polytechnic Institute, Troy, NY, in 1968 and 1978, respectively.

Since joining the GE R&D Center in 1968, Dr. Robert L. Steigerwald has conducted research and advanced development of power converters for motor drives, induction heating, high-frequency lamp ballasts, UPS, utility interactive photovoltaics, and low-voltage power

supplies. His present interests include analysis and development of high-frequency, high-density, soft-switching power converters and their components.

Dr. Steigerwald received the 1993 William W. Newell Award from the IEEE Power Electronics Society for outstanding achievement in power electronics. He has served on the program committees for numerous IEEE conferences and is presently an Associate Editor of the IEEE Transactions on Power Electronics.

**Program** The current status and future trends of distributed power systems for electronic equipment and systems are discussed. Example applications to be discussed include aircraft, shipboard, locomotive, and medical equipment power systems. Various distributed power system architectures will be discussed and compared. Recent high-

efficiency, high-density converter developments employing multichip module packaging technology will be presented. Some recent low profile magnetic devices suitable for multichip module packaging will be discussed and compared.

In addition, past RRV section chairs, and Region 4 and Central Area representatives will be in attendance.

**Door Prizes** Sponsored by RRVS

**Meal** Dinner will be buffet style featuring Chicken Divan and Orange Roughy. Please make your **dinner reservations** by calling **Gloria** at **815-226-5247** by **Tuesday, March 25, 1997**. In celebration of this special 50 year anniversary event, there will be no charge for dinner for **IEEE members and one guest**. The cost is **\$16.00** for **non-members**.

**Note** The meeting is open to the general public. You need not be an IEEE member. However, please call to enable us to make proper arrangements.

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**Look Who's Coming To Dinner**

At the section meeting this month, the RRVS celebrates its 50th year as a section. The section is paying for dinner for each member that attends and one guest. Each member is encouraged to invite a friend, colleague or acquaintance that may be interested in joining the IEEE. That person will enjoy an evening of great food and a world class technical speaker in Dr. Steigerwald.

Chair

Vice Chair

**RRVS Section Officer Nominations**

In accordance with the RRVS' bylaws, the Nominations Committee has submitted the names of the following individuals as nominees for the four elected positions on the RRVS Executive Committee for the 1997/1998 season. The election will be held at the May 29 section meeting.

Treasurer

- Chair**            **Bob Parro**
- Vice Chair**   **Bill Barber**
- Treasurer**    **Larry Wachowiak**
- Secretary**    **Matt Zimmer**

Secretary

Additional nominees can be submitted by petition from the section membership. A potential nominee must be an IEEE member in good standing and a member of the RRVS. A petition must be signed by at least 20 RRVS members. Deadline for petitions is April 15. Please submit petitions to Roger Caruana (see contact info on page 3)

**April Meeting Preview**

The April RRVS section meeting will be a tour to the Byron Nuclear Station. Call early for reservations, there will be limited availability. Those who are interested will meet at a TBD restaurant after the tour for dinner. Each person will pay for his own dinner, the section will not be subsidizing it for members, as is usually the case.

**February Meeting Recap**

Bob Parro

Bill Barber

Bob Larsen, Manager of the Technology Engineering Section at Argonne National Laboratory's Center for Transportation Research, gave an interesting talk about hybrid electric vehicle technology being the next automotive revolution. One important message expressed was that our oil consumption has increased enormously since the days of the oil crisis in the seventies and development of alternative fuels and electric and hybrid electric vehicles has languished since then. We did not learn our lesson. Oil producing countries know the price at which to keep a barrel of oil to make it economically unattractive to develop alternatives (~\$18). It's not a coincidence that oil is and has hovered around that price point for quite a long time. With extremely large (in population) nations like India and China entering into the industrial age in a big way in the next 1-2 decades, the demand for oil will increase dramatically. The US needs to poise itself by developing alternative technologies. Bob indicated that HEVs are a very viable contender, but cost needs to be driven down significantly.

Larry Wachowiak

Matt Zimmer

**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  
fax:                (815) 394-2497

**RRVS Executive Committee**

(l-r) standing: Larry Wachowiak, Treasurer; Hassan Mansir, IAS Chair; Don Zinger, NIU Student Branch Counselor; Matt Zimmer, Secretary and IAS Vice Chair; Roger Caruana, Education & Technical Activities Chair; seated: Caio Ferreira, Past Section Chair & current IAS Chapters' Department Chair; Bob Parro, Section Chair; Bill Barber, Membership Chair; Jim Buerosse, PELS Chapter Chair; Paul Peterson, Computer/Control Systems Society Chapter Chair & Awards Chair

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

**Sundstrand Corporation • 3C Computer Systems • William Barber & Associates • Northern Illinois University**

### Rock River Valley Section of the IEEE 1996-1997

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

#### Elected Executive Committee

Chair	Bob Parro	b.parro@ieee.org	(815) 394-2947
Past Chair	Caio Ferreira	c.ferreira@ieee.org	(815) 394-2903
Vice-Chair	Bill Barber	b.barber@ieee.org	(815) 235-4110
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	Hasan Mansir	h.mansir@ieee.org	(815) 226-6875
IAS Chptr. Vice Chair	Matt Zimmer	m.zimmer@ieee.org	(815) 394-3456
Comp/CS Chapter Chair	Paul Peterson	paul.peterson@ieee.org	(815) 226-2584
PELS Chapter Chair	Jim Buerosse	j.buerosse@ieee.org	(815) 226-6078
Educational Activities	Roger Caruana	r.caruana@ieee.org	(815) 332-4606
Technical Activities	Roger Caruana	r.caruana@ieee.org	(815) 332-4606
Membership	Bill Barber	b.barber@ieee.org	(815) 235-4110
Awards	Paul Peterson	paul.peterson@ieee.org	(815) 226-2584
Publicity, Newsletter Editor	Bob Parro	b.parro@ieee.org	(815) 394-2947
Nominations	Matt Zimmer	m.zimmer@ieee.org	(815) 394-3456
RRVS Jubilee	Larry Wachowiak	l.wachowiak@ieee.org	(815) 394-5676

#### Northern Illinois University - Student Branch Officers

St Br Counselor	Prof. Don Zinger	d.zinger@ieee.org	(815) 753-0706
St Br Chair	Jeff Ciarlette		
St Br Vice-Chair	Chris Stegh		
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)

**Internet Access For \$5/mo**

Obtain text-based Internet access from the Sinnissippi Valley Freenet. Ideal for Commodore 64, Apple 2 and VT100 terminal users that don't have graphics capability. Access Winnebago County tax information. Send/receive e-mail. Contact Carol Ford at:  
sinnfree@sinnfree.org

**Calendar**

**March/RRVS Jubilee Section Meeting ..... Thursday, Mar 27**

Advances in Distributed Power Systems for Electronic Systems, Dr. Steigerwald, GE Research Center

**April Section Meeting/Tour ..... Thursday, April 24**

Byron Nuclear Power Plant

**May Section Picnic/Elections ..... Thursday, May 29**

Sundstrand Park

**Time-Sensitive Material**

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