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November 1998

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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## Joint IAS Chapter/Student Branch Meeting

### Are the Days of 12V Automotive Electrical Systems Numbered?

**When** November 19, 1998

**Where** Northern Illinois University Engineering Building Auditorium, Room 101, DeKalb, IL. See map on page 2 for details. Parking will be allowed in the faculty parking lot behind the engineering building after 5:00 PM at no charge.

**Agenda**

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

**Program** Only a few of us can remember the days of the 6V automotive electrical system. Today's 12V automotive system has been the international standard for nearly 40 years, but forces are now at work that may change that during coming years. A variety of new electrically-powered accessory systems are working their way towards production in future internal combustion engine (ICE) vehicles, driven by desires for higher fuel economy, lower emissions, and improved passenger features. Taken together, these new features have the potential for pushing average electrical power consumption in future high-end vehicles significantly higher.

The introduction of a new higher voltage electrical distribution bus

into future vehicles to satisfy these increasing power demands are now

**Today's 12V automotive system has been the international standard for nearly 40 years, but forces are now at work that may change that ...**

being seriously considered by automakers around the world. However, there are many technical and business issues that need to be resolved before this can occur. The presentation will review the current status of today's incumbent 12V automotive electrical system and the prospects for any new candidate system to replace it.

**Speaker** Thomas M. Jahns received his Bachelor's, Master's, and doctoral degrees from the Massachusetts Institute of Technology, Cambridge, MA, all in Electrical Engineering. This October Dr. Jahns joined the faculty of the University of Wisconsin-Madison as a Professor in the Dept. of Electrical and Computer Engineering where he is also an Associate Director of the WEMPEC Consortium. Prior to joining UW-Madison, he was employed by GE Corporate Research

and Development for 15 years where he pursued new power electronics and motor drive technology in a variety of research and management positions. During the past 2 years, Dr. Jahns conducted a research sabbatical at MIT where he directed research activities in the area of advanced automotive electrical systems and accessories as co-director of an industry-sponsored automotive consortium. Dr. Jahns is an IEEE Fellow and a past president of the IEEE Power Electronics Society. He has been named a Distinguished Lecturer by the Power Electronics Society for 1998-99.

**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 **Jenifer at 815-753-9974 by Tuesday, November 17, 1998, (please include your e-mail address in the information you provide Jenifer - thanks)**. The cost of the **dinner** is **\$2 for student IEEE members, \$5 for 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. However, please call to enable us to make proper arrangements.

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### October Meeting Recap – IEEE DSP Seminar

Your section's first Digital Signal Processing Seminar was held Thursday, October 29, at the ClockTower Resort and Conference Center. The seminar was an all day, four parallel track event that saw 129 attendees, a dedicated website ([www.dspseminar.org](http://www.dspseminar.org)) with a secure webpage for taking credit card registrations, 8 speakers presenting 10 different topics (most of which are available on our website until about the end of November) three of which ran for half a day, session notes, supplemental handouts to the talks, a good mix between academia and industry/tools and technology/hardware and software/ technical and professional/theory and applications, 6 vendor booths (Cadence Design Systems, Beta Technology, Avnet Electronics, TI, Silicon Engines and HP), 5

sponsors (IEEE Region 4 PACE, Sundstrand Aerospace, Cadence Design Systems, Avnet Electronics and Beta Technology – all of which we thank again), a continental breakfast and lunch with refreshments served during two breaks, a drawing for six 900MHz cordless phones, and an evaluation/survey that is providing valuable feedback on future direction for our section not only in terms of potential future seminars but also in terms of our monthly meetings. The preliminary response from seminar attendees is very favorable.

A Seminar Organizing Committee was formed in March from volunteers from members of the RRVS Executive Committee who collectively put in an enormous amount of time and effort to organize what turned out to be a very successful first time event of this

type.

Some interesting demographics are that our website got 10 hits from Turkey and 1 hit from Great Britain. The companies that hit our website read like a who's who in high technology companies in the US. People traveled from as far away as Cedar Rapids, Iowa, and Minneapolis, Minnesota, to attend. There were a good number of students in attendance from Milwaukee (MSOE, Marquette Univ., UW-Milwaukee), Chicago (UIC), DeKalb (NIU) and Madison (UW-Madison) and two Sundstrand coops from the University of Illinois and Iowa State. The SOC did an excellent job at holding down the costs to reduce the possibility of losing money.

The response to the seminar exceeded our expectations which gave the SOC a sense of pride at being able to bring a high caliber event having value to our members.

### 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)  
fax: (815) 394-2497

**RRVS Executive Committee**

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

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**Electronic IEEE Membership Application**

An electronic on-line application is available at

**[www.ieee.org/join.html](http://www.ieee.org/join.html)**.

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**Time-Sensitive Material**

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