



Southern Minnesota Section Newsletter

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DVD

by Steve Beilby

DVD, which once stood for Digital Video Disc or Digital Versatile Disc, is the next generation of optical disc storage technology. It's essentially a bigger, faster CD that can hold video as well as audio and computer data.

DVD aims to encompass home entertainment, computers, and business information with a single digital format, eventually replacing audio CD, videotape, laserdisc, CD-ROM, and perhaps even video game cartridges. DVD has widespread support from all major electronics companies, all major computer hardware companies, and about half of the major movie and music studios. This is unprecedented, and it says much for DVD's chances of success (or, pessimistically, the likelihood of it being forced down our throats).

It's important to understand the difference between DVD-Video and DVD-ROM. DVD-Video (often simply called DVD) holds video programs and is played in a DVD player hooked up to a TV. DVD-ROM holds computer data and is read by a DVD-ROM drive hooked up to a computer. The difference is analogous to the difference between Audio CD and CD-ROM. DVD-ROM also includes recordable variations (DVD-R, DVD-RAM, DVD-RW, DVD+RW). Most people expect DVD-ROM to be much more successful initially than DVD-Video. Most new computers with DVD-ROM drives can also play DVD-Videos.

There's also the DVD-Audio format, introduced in 1999. There are four recordable versions of DVD-ROM: DVD-R, DVD-RAM, DVD-RW and DVD+RW. DVD-R can record data once (sequentially only), while DVD-RAM, DVD-RW and DVD+RW can be rewritten thousands of times. Final versions of the DVD-R and DVD-RAM version-1.0 specifications were published in August 1997. DVD-RW 1.0 and DVD-R 2.0 are being finalized now. These recordable media are not currently usable for home video recording, although home DVD recorders will eventually become available. The three erasable formats (DVD-RAM, DVD-RW, and DVD+RW) are essentially in competition with each other. The market will determine which of them succeed. DVD-RAM has a head start of more than a year.

Toshiba, Panasonic, and others are working on combination DVD-ROM/CD-RW drives that will be available near the end of 1999.

IEEE Computer Society Meeting

Steve Beilby

DVD

Monday, November 1, 7:00 pm
Mayo Medical Sciences Building
(321 3rd Avenue SW, Rochester)

☞ Pizza & socializing at 6:30 pm ☜

Stephen Beilby is an Advisory Engineer at IBM in Optical Storage Technologies. An IBM Rochester employee for 21 years, Steve started as a microcoder for I/O on the S/34, and he has performed various jobs over the years, including seven years as a critical situations manager for the Far East and parts of the U.S.

Steve has a B.S. in Computer Engineering from Iowa State University. Outside interests include sports, his two daughters and politics (he has run twice for mayor of Rochester).

Our Section Has a New Chapter

The Signal Processing / Communications Society joint chapter of the Southern Minnesota Section has been established. This chapter is for IEEE members who are interested in signal processing or computer communications and who wish to learn more about these subjects.

Typically two chapter meetings will be scheduled each year. If you would like to suggest a meeting topic, or if you would like to be notified about chapter meetings, please contact Scott Dahl (507-253-7571, ssdahl@us.ibm.com).

IEEE SE Minnesota Section & Coulee Subsection Joint Meeting

Prof. Thomas M. Jahns
IEEE Distinguished Lecturer

Power Electronics & Drives in the New Millennium

Monday, October 18, 6:30 pm
Holiday Inn Express (Valley View room)
9409 Highway 16, Onalaska, Wisconsin

Everywhere we look around us – our factories, homes and vehicles – power electronics and adjustable-speed motor drives are playing increasingly important roles in successful system operation. This presentation will review the complex combination of forces that are at work in both spurring and limiting the deployment of new power electronics and adjustable-speed drive systems. See map & car pool info below.

Thomas M. Jahns received his bachelor's, master's and doctoral degrees in Electrical Engineering from the Massachusetts Institute of Technology. In October 1998 he joined the faculty of the Department of Electrical and Computer Engineering at the University of Wisconsin-Madison, where he is also an associate director of the WEMPEC Consortium.

Prior to joining UW-Madison, he was employed for 15 years by GE Corporate Research and Development, where he pursued new power electronics and motor drive technology in a variety of research & management positions. During 1996-98, he conducted a research sabbatical at MIT where, as co-director of an industry-sponsored automotive consortium, he directed research activities in advanced automotive electrical systems and accessories.

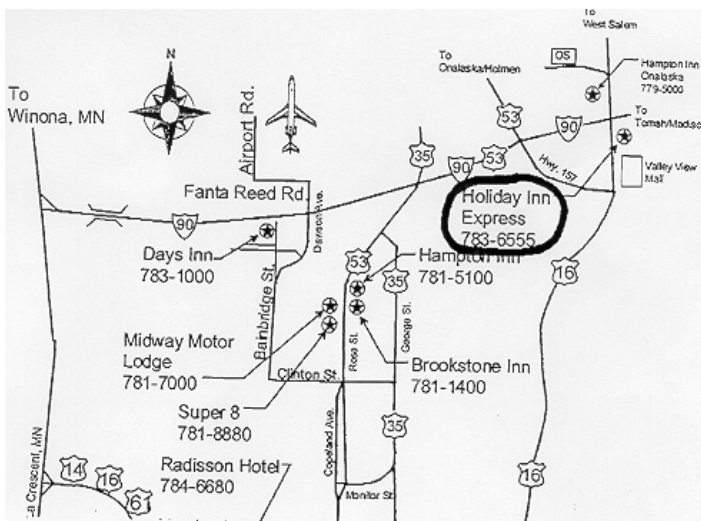
Dr. Jahns is an IEEE Fellow, and he is past president of the IEEE Power Electronics Society. He was named a Distinguished Lecturer by the Power Electronics Society for 1998-99.



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Car Pool Info & Directions for LaCrosse Meeting

If you're interested in car-pooling from Rochester for the joint meeting, please contact Rob Harveland (253-0780 at work, 252-0428 at home; r.harveland@ieee.org).

If you're driving, here are directions: from I-90, take exit 5 to Highway 16 south. Drive about 1/2 mile, to the 2nd traffic light. Turn left here and backtrack north on Highway 16 for about 1/4 mile. The Holiday Inn Express will be on the right, set back about 100 yards.

Barnes & Noble is nearby, on the west side of Highway 16; on the east side of the highway (near the Holiday Inn Express) is an Olive Garden restaurant.