

Software Defined Radios

Information on Software Defined Radios (SDRs) will be presented by Terry Van Benschoten. His presentation involves a live demonstration of the radio's capabilities using an SDR.

This technology is in its infancy, yet has matured to a point that surpasses the current generation of radios commonly used today. SDR technology enhances Terry's abilities to observe, record, and study rare radio events. Modern day radios are just not capable of performing the same functions without a significant financial investment.

Terry has presented a view of SDR's capabilities at a few of the major radio conferences this year. He has influenced the development progress of the technology by submitting well-defined user requirements to the product developers.*

Terry has agreed to stay around after the presentation to answer any questions you may have, as well to demonstrate specific features of the radio.

Topic information can be found at www.flex-radio.com

*Terry has no financial association with the manufacturer of this product.

Voices of Innovation

There is nothing quite like learning about a technological breakthrough from the person who made it happen. A first-person account of how the inventor of the laser, Charles Townes, realized while sitting on a park bench that chromium found in rubies could focus light molecules into a high-energy beam adds an exciting facet to engineering knowledge. Likewise, reading the explanation by one of the Internet's creators, Paul Baran, of why he set up the routing architecture the way he did adds a little extra to an engineer's understanding of present-day technology. These are just two of the electronics pioneers whose oral histories—written transcripts of interviews with technology's best and brightest—are on file at the IEEE History Center.

Visit: <http://tinyurl.com/bd56x>

European satellite launch challenges GPS

The European Union launched its first Galileo navigation satellite on Wednesday, moving to challenge the United States' Global Positioning System (GPS). Galileo will be Europe's own global navigation satellite system, providing highly accurate, guaranteed global positioning service under civilian control. It will be inter-operable with GPS and Glonass, the two other global satellite navigation systems. For more news, visit: <http://tinyurl.com/d4cas>. For information on The Galileo program, visit: www.galileoju.com

Digital Television Transition

The deadline for the transition to digital television has been pushed back to April 2009, giving lawmakers and the FCC more time to decide what to do with the analog spectrum that will be returned shortly after the transition is complete. This delay leaves public safety networks hungry for bandwidth. For more information, visit:

<http://www.todaysengineer.org/2005/Dec/spectrum.asp>

Employment Resource

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Any technology professional can search the Job Site listings, but you must be an IEEE member to take full advantage of this online recruitment service. Visit careers.ieee.org.

SECTION MEETING

Featuring: Mr. Terry Van Benschoten, W0VB

Monday, January 9th, 6:30 pm

Mayo Medical Sciences Building
(321 3rd Avenue SW, Rochester)

▶ Pizza at 6:30; Meeting at 7:00 ◀

Mr. Terry Van Benschoten was first licensed as an Amateur Radio operator in 1961, Terry moved to southeast Minnesota in January of 1976. By December of 1976, he had erected an array of eight (8) 35 ft antennas, all phased together on a farm west of town. This enabled Terry, and others, to bounce radio signals off the moon on a frequency of 144 Mhz.

Terry's hobby focuses on using natural phenomenon to extend the range of "line-of-sight" frequency communications from a "normal" less than 50 miles, to the entire earth's surface. Propagation enhancements are key enablers to make this to happen.

In pursuit of this facet of radio experimentation, Terry has since purchased the farm property, and installed an even larger, more complex antenna array to extend his capabilities in this area of study. Radio propagation, such as the Aurora Borealis (Northern Lights), the reflectivity created by ionized meteor trails, and reflecting signals off the moon and back (EME – Earth Moon Earth or moon bounce) are some of his accomplishments.

IEEE Membership Portal

The IEEE membership portal boasts the value and benefits of IEEE membership while showcasing the availability of additional membership opportunities, such as Societies, Affinity Groups and the Standards Association. Links to member-benefit information are consolidated into drop-down menus on the top navigation bar. Also included are a "Featured Benefit" module, member profiles, membership-related announcements and more.

Members who login to the myIEEE area with their IEEE Web account will see personalized information, such as their grade, section affiliation and additional active memberships. A new feature called "Service Adviser" uses a member's technical interest profile to offer recommendations for IEEE membership offerings, conferences and publications. Links to the most commonly-used membership-management functions are included in a single module for easy access.

The portal is accessible from the Membership menu on the left navigation bar of the main IEEE Web site. The URL is

<http://www.ieee.org/myieee>.

Membership Renewal Time

Just a small reminder, if you haven't yet done so, please renew your IEEE membership. We update our mailing list each month and would like to continue informing you on our upcoming activities. To renew, visit: <http://www.ieee.org/renewal>

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<https://www.ieeeonlinecommunities.org>



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