



# Madison Section NEWSLETTER

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November 2002

## ***Determining the Maximum Operating Capacity of Transmission Lines using LiDAR Aerial Surveys***

- Date/Time:** Thursday, November 21, 2002, 11:45 AM - 1:00 PM  
**Speaker:** Scott J. Piernot, P.E., Vice President, Realtime Design Services, Madison  
**Location:** Rocky Rococo's Pizza, 7952 Tree Lane (Madison Beltline Hwy. at Mineral Pt. Rd.), 608.829.1444  
**Menu:** Pizza buffet, salad and soft drinks (cost \$10.00, free for student members)  
**RSVP:** by November 18th to Tom Yager via email (tyager@ieee.org) or call 608.821.0821 ext. 342



*Non-member guests are always welcome!*

For many utilities, a key issue facing the electric utility industry today is determining the transmission adequacy for maximum operating conditions on existing lines. Today's technology in rapid survey data collection, post-processing and high-tech data analysis makes identifying low-cost solutions and upgrade feasibility a much simpler process than many might anticipate.

Determining limiting clearance conditions based on field-measured conductor tensions and performing "What If" scenarios for elevated operating temperatures, allows planners and engineers to have the information necessary to create effective Cost/Benefit and Incremental Upgrade Strategies that maximize their existing transmission assets.

Realtime Design Services, Inc. has had recent success in this area. Using LiDAR aerial survey technology, data was rapidly collected and processed on more than 1,800 miles of transmission lines. This data was then used to build and analyze line models for their transmission line clients in a fraction of the time required by conventional processes.

Realtime will summarize:

- The latest in LiDAR aerial survey technology and how it's used to provide accurate 3-dimensional data within transmission corridors.
- How this data is used to build design study models to find unrealized capacity.
- Using these study models to produce Rating Studies & Elevated Temperature Studies to identify low cost clearance upgrades and provide exact information for engineers & planners to budget for capital investment and incremental upgrades to maximize their transmission assets.



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## IEEE Madison Section Elections

At the December 2002 monthly meeting, the IEEE Madison Section will conduct its annual officer elections prior to the technical presentation. Nominations may be made by telephone or via e-mail to the Chair (278-0377, [rotter@ieee.org](mailto:rotter@ieee.org)).



Additional candidate nominations are welcome and encouraged for all positions. The nominations to date include:

- Chair: Sandy Rotter
- Vice-Chair: Bob Sier
- Secretary: Tom Yager
- Treasurer: John Hicks
- Mem. at Large: John Cortsvet
- Mem. at Large: Les Schroeder
- Mem. at Large: Wayne Lenius

## Applying Success Skills to Engineering

by Todd Yuzuriha

“Success is peace of mind that is a direct result of self-satisfaction in knowing you gave your best effort to become the best of which you are capable.”

— John Wooden

In his book, *Beyond Success: The 15 Secrets to Effective Leadership and Life*, author Brian Biro collaborated with John Wooden, the legendary coach who won 10 NCAA basketball championships. Even though success should be determined by what you feel within yourself, most people still judge their success by what others think. “As long as we believe even slightly that success is deter-

mined externally, we open the door for a paralyzing fear of failure,” advocates Biro.

While Mr. Biro’s philosophy applies to all aspects of our lives, I was intrigued by the fact that his views apply appropriately to the engineering workplace.

#### APPLYING “SUCCESS” TO THE ENGINEERING WORLD

Typically in engineering, we work on projects with detailed technical specifications, cost targets and timelines. Each of these project aspects is tied to a goal, and “success” comes when we reach those goals.

In working toward achieving success, “the key is to focus on what you can control during work on the project,” says Biro. “Don’t beat yourself up with things you can’t control.”

Strive to achieve the project goals and to do everything you can to reach them. But if something doesn’t turn out as intended, ask yourself, “Did I give my best?” As long as you can answer this question with a “yes,” you have attained some measure of success, and you can build on that success on future project work.

“Success is not something that can be attained only by a select few at the end of a project, a season, or even a career,” Biro says. It’s not a case of only a few win and everyone else loses. Everyone on the project team can achieve success, especially when they pull together with a sense of purpose that goes beyond an individual level.

#### STEPS FOR CONTINUAL IMPROVEMENT

At the end of a project, analyze what you can improve for the next project. This isn’t a time to place blame, but rather to take an objective look at what happened. Review how the performance, cost and schedule targets were determined and met or missed, and explore ideas of how things might be done better next time.

“It’s all about having the sense of satisfaction that you’ve done your best now, and then being able to expand to be better next time,” says Biro.

Todd Yuzuriha is the author of *How to Succeed as an Engineer: A Practical Guide to Enhance Your Career* ([www.engineeringsuccess.com](http://www.engineeringsuccess.com)).

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## New Career Newsletter Begins Publication

“IEEE Career Alert,” a new weekly opt-in online newsletter, written by “IEEE Spectrum” editors, is now available. The publication focuses on issues such as professional growth opportunities, continuing education, management and the engineering workplace. It also will include related articles from “IEEE Spectrum,” other IEEE resources and the Web. You can sign up to subscribe at <http://www.spectrum.ieee.org/careers/signup.html>.

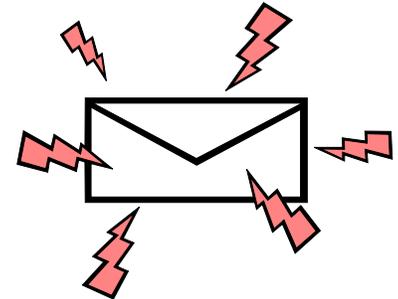
For additional information, contact Elizabeth A. Bretz, IEEE Spectrum, telephone +1 212 419 7552, [e.bretz@ieee.org](mailto:e.bretz@ieee.org).

“IEEE Spectrum Online” also has revamped the IEEE Web site career section, found at <http://www.spectrum.ieee.org/careers>, to include easier navigation and an articles archive, plus links to the IEEE Job Site at <http://jobs.ieee.org/index.html>.

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## Madison Section Mailing List

Some of you may not realize that the IEEE Madison Section has a email mailing list (madison-section). This list is very low volume and is only used for meeting announcements and general announcements that may be important to the membership. Only the list moderator is



allowed to post messages so you won’t receive any advertising or spam. Instructions on how to subscribe may be found on the IEEE Madison Section web site located at <http://www.bugsoft.com/ieee>. Just look under “Madison Section Mailing List”. Basically you just send an email to [majordomo@majordomo.ieee.org](mailto:majordomo@majordomo.ieee.org) with `subscribe madison-section` in the body of the email (the subject is ignored). The list moderator will receive your request, verify your membership, then add you to the list. You will then receive notification that you have been subscribed to the list. This process may take a few days, so be patient.

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## Madison IEEE Entrepreneurs' Network

A new Madison IEEE Entrepreneurs' Network Chapter is being formed. For more information contact:

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