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January 2001

Rock River Valley Section  
[www.ieee.org/regional/section/rock\\_river/](http://www.ieee.org/regional/section/rock_river/)

Event



Sense

The Institute of Electrical and Electronic Engineers, Inc.

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## Computer/Control Systems Chapter Meeting A Graphical Approach to Control Loop Tuning

### When

January 25, 2001

### Where

Rock Valley College, Technology Center, Room 117. I90 to Riverside Blvd., exit and go west to Mulford Rd. Go south to first light, turn east into RVC. Follow road to left to last building.

### Agenda

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

### Program

This work is based on the hypothesis that some Hydrogenerator system parameters are not known at the design stage. It develops a graph which can be used to predict optimum proportional and integral gains based on four parameters: the time constants of the water column, rotor inertia, and the self regulation constants of the turbine and of the loading grid. The pole cancellation method is used and the results are posed in an easy-to-use format not requiring the solution of systems of equations. Information on stability limits and comparisons with other work are

included.

The results presented are intended as a quick guide to design limits rather than as an alternative to simulation for assessment of stability and performance of known system dynamics.

### Speaker

Louis Wozniak was born in Rome, Italy in 1938 and immigrated to the United States at age 13. He received a B.S. in Mechanical and Ph.D. in Electrical Engineering from the University of Illinois, Urbana, where he is currently Associate Professor. Throughout his professional life, Professor Wozniak has researched hydroelectric power generation and speed control, and brought that research to the field implemented stage. He has authored publications and served as hydro projects consultant. He has taught controls since 1969 and digital controls since 1983. Professor Wozniak is a Fellow of the Institute of Electrical and Electronic Engineers and member

of the Energy Development and Power Generation Committee of the Power Engineering Society of IEEE.

### Door Prizes

Sponsored by RRVS

### Meal

Dinner will be buffet style (with a min. of 15) and will consist of chicken, veggies, salad, dessert. Please reserve your space and make your meal reservations by **calling Jennifer at 815-753-9974 by Monday Jan. 22.** (Please include email address in the information you provide Jennifer - thanks). The cost of the dinner is **\$2 for student IEEE members, \$5 for other 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. Guests are welcome. However, please call to enable us to make appropriate arrangements.

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## Chicago/Rockford IEEE Consultants Network Meeting

The next meeting will be on Monday, January 29, 2001. The optional informal dinner is at 6:15 PM at Bakers' Square (270 E. Northwest Highway and North Court), and the meeting at 7:30 PM at the Palatine Public Library (700 North Court, Palatine, IL 847-358-1216).

The speaker will be Bill Hall of Asgard Technologies. Bill will be speaking on "Acceptance and Maintenance Testing of Electrical Power Equipment". The primary focus will be insulation testing. The topics to be covered include dc insulation testing such as insulation resistance, polarization index, and step resistance testing as applied to cables, transformers, circuit breakers and other electrical equipment. Also included will be ac insulation testing, or insulation power factor testing. Information about the network can be obtained by e-mail: [g.l.blank@ieee.org](mailto:g.l.blank@ieee.org) and at our web site <http://www.drblank.com/coaction.htm>.

## November Meeting Re- cap

As has been the tradition, the November meeting of the IEEE RRVS was again held at the NIU Engineering Building. After a wonderful dinner supplied by Yen Ching of DeKalb, Tom Rossing, Professor of Physics at NIU, presented, "Physics, Engineering, and the Arts".

With the aid of some videos, Professor Rossing discussed how the physics of sound and light waves were very important to the understanding and appreciation of music and some visual art forms. He showed how the various resonance modes of a musical instrument can affect the timbre of the sound it produces. He even had live demonstrations with gongs to emphasize his points. As holographic art is becoming more prevalent, he also gave a brief description of holography and how it can be used to create beautiful art forms.

Along with the many NIU students, the meeting was attended by many of the regular RRVS members. Everyone there seemed to have an enjoyable evening. They went away with a little more insight and understanding of the relation between science and art.

## IEEE Annual Election Re- sults

Listed below are partial results of the 2000 IEEE annual election, as certified by the IEEE Tellers Committee on 9 November 2000. In 2000, there were no Constitutional Amendments. The number of ballots mailed was 248,196. The number of valid ballots returned was 49,688. The rate of return was 20.02 percent. Region 4 is where the RRVS resides.

OFFICE OF PRESIDENT-ELECT, 2001

Raymond D. Findlay

OFFICE OF REGION DELEGATE-ELECT/DIRECTOR-ELECT, 2001-2002

Region 4  
Burton J. Loupee

## 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)

## **2001 IEEE RRVS Executive Committee**



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### **Northern Illinois University Student Branch Officers**



Shireen Allauddin  
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Vice Chair



Joe Dowsett  
Secretary



John Thomas  
Treasurer

*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*

**The Rock River Valley Section gratefully acknowledges the following  
companies and university for supporting Section Officers:**

**Hamilton Sundstrand • Northern Illinois University • Telelogic**



Rock River Valley Section  
Established 1947

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## Calendar

**January Section Meeting ..... January 25**  
 Professor Louis Wozniak, U of Urbana will talk about PID Tuning



Joint Computer/  
Control Systems  
Society Chapter  
Established 1995



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## Time-Sensitive Material

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