INTELLIGENT SYSTEMS SUBCOMMITTEE MEETING

IEE-PES General Meeting Toronto
Time: 9 AM -11 AM, Tuesday, July 15, 2003

Chair: Kevin Tomsovic
Minutes: Dagmar Niebur

1   Corrections to the Minutes of the SM2002 subcommittee meeting in Chicago 7/22/03.

Kwang Lee, organizer of the tutorial on Heuristic Optimization Techniques for Power Systems noted that the tutorial took place at the IEEE PES WM 2002 in New York and will NOT be repeated at the GM03 Meeting in Toronto.

Minutes with changes unanimously approved

2   TF on Intelligent systems on distribution services TF: Butler

The TF is working on distribution service bibliography, N. Schultz, D. Niebur, K. Miu and K. Because of the large amount of references the paper has been split into two parts. The first part (20 pages) was submitted. Revise and resubmit. We are working on the revision.

3   WG on New Technologies and Practical Applications: Dagmar Niebur

3.1   The WG is co-sponsoring and contributing to the Distribution Systems TF's 2002WM panel and the bibliography paper, see above.

3.2   A panel session on Intelligent Optimization Techniques for Power System Expansion Planning and Pricing took place on 7/21/2002 in Chicago. The WG chair suggested to repeat the panel at the GM 2004 in Denver and to invite a new set of speakers: Speakers included: Allan Kurtz, BPA, Ron Chu, Exelon-PECO Energy, Djordje Atanackovic, BC Hydro, Yong Soon, Brunel University, Felix Wu,The University of Hongkong, and Karen Miu, Drexel University.

3.3   Panel session on Condition monitoring was proposed by Alex Mamishev, he has gathered 6-7 speakers. Session can be co-sponsored by GIS subcommittee.

3.4   Mladen Kezunovic proposed to organize a panel on Intelligent Systems Applications in Substations for the Denver 2004 Meeting. Speakers include K. Brand, ABB Switzerland, M. Kezunovic, Texas A&M University, D. Kreiss, Kreiss Technologies and R. Shoureshi, University of Denver.

3.5   Kwang Lee proposed panel on IS for Green Power, proposed speakers include N. Hatziargyriou, S. Rhaman, H. Nara and C. Nwankpa. Leon Bohmann recommended joint sponsorship by EDPG Energy Development Subcommittee and the WG on Renewable Energy.

3.6   A panel session on "Multi-agent Systems for Power Systems" was organized by Steve McArthur. It was originally scheduled for the GM03 in Toronto and then moved to take place at the GM 04 in Denver. Speakers included Chen-Ching Liu, Jim McCalley, Steve McArthur, Sarosh Talukdar and Nikos Hatziargyriou.

3.7   Steve McArthur volunteered by email to chair a task force on Multi-agent Systems. The scope of a Task Force is attached to the minutes.

3.8   S. Santoso proposed TF on Intelligent Data Mining and Analysis with focus on how to process data and convert it to meaningful actions, knowledge discovery, transformation of raw data into knowledge, disturbance, system restoration, abnormal operation; transformer maintenance data. Time frame would be 2-3 years with activities

including panel sessions, papers, and potentially a tutorial organization. The scope of a Task Force is attached to the minutes.

A general suggestion for panel organizers is to write a summary of the panel contributions and submit through the subcommittee to the new power engineering review based on abstracts and main discussion contributions.

4.   Tutorial course updates

Tutorial on Heuristic Optimization – Organizer: Kwang Lee

The tutorial took place at the IEEE PES WM 2002 in New York. The organizer proposed to repeat the tutorial at the GM 04 in Denver or at a later meeting. The contributions are edited for publication in a book.

5.   Other business

ISAP 2003 will take place in Lemnos, Greece 8/31/03-9/3/03. The program and registration information can be found on the conference web page. The ISAP organizers have issued invitations to organize special sessions. Chen-Ching Liu volunteered to send proposal to NSF for travel funds, but to obtain funding is expected to be difficult.

The technical committee has selected the papers. There will be daily plenary sessions. Healthy number of papers was submitted. D. Lucarrelli has reviewed the marginal papers a second time. The process has been approved. A special issue for International Journal on Engineering Intelligent Systems issue will print 12 papers which have been selected and will be reviewed again.

The location of ISAP 2005 will be Washington DC. Organizers are James Momoh and Kwang Lee.

The next PSEC (revised PICA) will be in October 10-14, 2004 in NY.

Kevin Tomsovic has been added as an associated editor of PWRS Transactions. Marty Baughman, has appointed D. Niebur as the new SC chair. She will take over in Denver.

The subcommittee members recommended to advertise IS Subcommittee meeting on the sessions and Powerglobe mailing list.

Meeting adjourns at 10:30 am.

Respectfully submitted

Dagmar Niebur

ATTACHMENTS

1.   Proposal of TF on

Multi-agent Systems
Proposed by S. McArthur, University of Strathclyde

Scope

Multi-agent systems are an emerging technology which supports a variety of complex automation and communication task thus facilitating the integration of local and supervisory control. A multi-agent system is comprised of independent and autonomous software modules which are able to cooperate and negotiate with one another.

Activities of the TF include
- Review of state of the art
- Review of industry practices
- Organization of panel session
- Organization of Paper sessions
- Organization of Tutorials

2.   Proposal of TF on

Intelligent Data Mining and Analysis
Proposed by S. Santoso, Elektrotek

Scope

Intelligent data mining and Analysis is a advanced technology in information processing to extract rules and knowledge from large database systematically and analyze the nonlinear relationship between input and output variables in complex problems or phenomena. Data mining is a mature application in other areas like marketing. It is however relatively recent that the power industry has shown an interest in these techniques.

Activities fo the TF include
- Review of state of the art
- Review of industry practices
- Organization of panel session
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