

**Intelligent Control Systems Task Force (ICSTF)**  
**Intelligent Systems Subcommittee, Power System Analysis, Computing and Economics Committee**

**Minutes of the Meeting of June 13, 2005, 11.00 am to 12.00 pm**  
**Union Square 14, Hilton, San Francisco at 2005 PES General Meeting**

The chair – Dr. Ganesh Kumar Venayagamoorthy of the task force (TF) welcomed everyone in attendance at the meeting. An attendance sheet was passed around the table.

**In Attendance:**

1. G. K. Venayagamoorthy	University of Missouri-Rolla
2. S. Ray	University of Missouri-Rolla
3. K. Butler	Texas A & M University
4. J. Bunting	Cooper Power Systems
5. A. Karimi	West Virginia University
6. S. Khusalani	Mississippi State University
7. D. Neibur	Drexel University
8. E. Mensah	Drexel University
9. O. P. Malik	University of Calgary
10. Alexandra de Silva	Federal University of Rio de Janeiro
11. D. M. Falcao	Federal University of Rio de Janeiro
12. S. Ranade	New Mexico State University
13. B. Jeyasurya	Memorial University of New Foundland
14. G. N. Taranto	Federal University of Rio de Janeiro

**Background to the formation of the ICSTF:**

The Intelligent Control Systems (ICS) Task Force has been created at a subcommittee meeting at PES2004 in Denver on June 7, 2004 with Dr. G. K. Venayagamoorthy as the chair of this task force. Intelligent control of power systems includes the application of computational intelligence techniques such as neural networks, fuzzy logic, evolutionary computing, swarm intelligence and adaptive critic designs for the control and optimization of all the elements that make up a power system ranging from the power plant through the transmission and distribution networks to the end user.

**Scope of the TF:**

Main focus of the TF will include:

- Development and standardization of terminologies and definitions, and publish reports in appropriate PES transactions.
- Recommend areas of research.
- Organize panel sessions at various PES meetings.
- Organize special sessions at various PES meetings.
- Organize tutorials at various PES meetings.
- Report on task force activities to the subcommittee.
- Assist conference organizers and Transactions editors with paper reviews.

**Panel Sessions**

The TF will organize three panel sessions during the next three years at the 2006 GM, 2007 GM and 2008 GM on Intelligent Techniques applied to the Control Generation Systems, Transmission Systems and Distribution Systems respectively. The Chair Dr. G. K. Venayagamoorthy suggested that some names of panelists for PES, 2006 June 18-22, Montreal, Canada should be selected at this meeting. Prof. Om Malik was invited to be one of the panelists for PES 2006 ICSF meeting. The ICSF members had also agreed to

put their effort on inviting industrial people for the PES 2006 panel session. The generation control will include excitation system, governor system, AGC, AVR, LFC etc related application of intelligent techniques.

The main objective of the panel sessions is to establish and document comparative studies of control schemes based on conventional linear and nonlinear control and intelligent agent based control. Some of the attendees proposed to have a panel session or tutorials on real-time implementation of intelligent control techniques. The proceedings of these three panels will be documented through publications in the appropriate power systems engineering transactions.

#### **ICSTF Website**

The chair proposed to keep a website for the ICSTF which will be done during this year.

#### **Miscellaneous**

All members present were asked to invite new members actively working in the area of intelligent techniques for power system control. A possibility of holding a TF meeting at the 13<sup>th</sup> Intelligent Systems Application in Power (ISAP) conference, 6-10 November, 2005 in Washington D.C was mentioned.

The meeting was adjourned at 12.00 PM.

Respectfully submitted,

Ganesh Kumar Venayagamoorthy

Chair: Intelligent Control System Task Force