## IEEE PES Multi-Agent Systems (MAS) Working Group

## Minutes of Meeting

Date: Monday 25th June, 2007

Venue: IEEE PES General Meeting in Tampa, FL

Chair: Dr Stephen McArthur, University of Strathclyde, UK (s.mcarthur@eee.strath.ac.uk)

## Attending:

Scott Strachan, University of Strathclyde Gordon Jahn, University of Strathclyde

Steve Widergren, PNNL

Dagmar Niebur, Drexel University
David Cartes, Florida State University

Germano Lambert-Torres, Federal Univesity of Itajuba

Toshi Funabashi, Meidensha Corp.

Anurag K Srivastava, Mississippi State Univ

Kwang Y Lee, Penn State University Leigh Tesfatsion, Iowa State University

Cor Warmer, Energy Research Centre of the Netherlands

Maarten Hommelberg, Energy Research Centre of the Netherlands

Thomas Tobin, S&C Electric Co

Alejandro Montenegro, S&C Electric Co

Hamed Zareipour, University of Calgary

Reza Iravani, University of Toronto

S.A. Khaparde, IIT Bombay, India

Hongyan Li, Iowa State University

Zita Vale, Polytechnic of Porto

Sergio Ratios, Polytechnic of Porto

Carlos Henrique V. Moraes, Federal University of Itajuba

Sudipta Lahiri, Drexel University

Karl Schoder, West Virginia University

Xianggen Yin, Huazhong Univ of Science & Technology

Zhenhua Jiang, University of Miami

Sukamar Kamalasadan, University of West Florida

Michael Knauff, Drexel University

Mo-Yuen Chow, North Carolina State University

You Dakan, Huazhong Univ of Science & Technology

## Minutes/Actions:

- It was reported that the Multi-Agent Systems Task Force has now become the Multi-Agent Systems Working Group. This allows it to create its own task forces for specific activities.
- 2. The Working Group has submitted a two-part Technical White Paper for publication in the IEEE Transactions on Power Systems. It has undergone one review cycle. The titles of the papers are:
  - "Multi-Agent Systems for Power Engineering Applications: Part 1 Concepts, Approaches and Technical Challenges"
  - "Multi-Agent Systems for Power Engineering Applications: Part 2 Technologies, Standards & Tools for Building Multi-Agent Systems"

If published, the IEEE Xplore reference will be circulated to all working group members.

- 3. It was agreed that two Task Forces would be created:
  - Task Force on Agent Research and Applications in Power Engineering
    - This will undertake bibliographical review of agent research in power engineering
    - It will create extensive web pages to support research and development in the field. It will use Leigh Tesfatsion's web site at http://www.econ.iastate.edu/tesfatsi/ace.htm as a model.
    - Provisionally, Ferdi Ponci (USC) will chair this Task Force with input from Leigh Tesfatsion (Iowa State) on the web page design and approach.
  - Task Force on Agent Ontologies for Power Engineering
    - This will work on ontologies per application areas
    - It will consider linkage with CIM, IEC61850 and other standards
    - The ontologies will be available via the working group web pages
- 4. It was **agreed** that the Technical White Paper would form the basis of a proposed tutorial on "Implementing multi-agent systems for power engineering applications". This will be targeted at PES General Meetings in 2009 & 2010. It will include hands-on practical sessions using software/hardware.
- It was agreed that the Task Force would propose two panel sessions for the 2008 IEEE PES General Meeting.
  - Jointly with the PSACE Computing & Analytical Methods (CAM) Subcommittee: The working title is "Implementing SmartGrids" co-chaired by Steve Widergren and Steve McArthur
  - "Agent based modelling in power engineering" Chaired by Leigh Tesfatsion.
    This will cover work on modelling of electricity markets and other appropriate
    applications.