IEEE PES INTELLIGENT SYSTEMS SUBCOMMITTEE MEETING

Minutes

IEEE PES GM 2014, Washington, DC Metro Area, USA

Date and Time: Tuesday, 29th July 2014, 11am to 1pm Venue: Gaylord National Resort & Convention Center on the Potomac, National Harbor, MD (Washington, DC Metro Area), USA, Room: Potomac 5

Chair: Alexandre P. Alves da Silva, GE Global Research, Brazil Vice-Chair: Zita Vale, Polytechnic of Porto, Portugal Technical Secretary: Sukumar Mishra, Indian Institute of Technology, Delhi, India

AGENDA

- 1. Approval of the Minutes
- 2. Announcements: Panels, Paper Sessions and Paper Forums
- 3. Working Group and Task Force Activities
 - 3.1 Working Group on Multi-Agent Systems: Zita Vale, Koen Kok, and Ivana Kockar3.1.1 Task Force on Agent-Based Modeling: Ivana Kockar
 - 3.2 Working Group on Intelligent Control Systems: Ganesh Kumar Venayagamoorthy 3.2.1 Task Force Micro-Grid Control System: Jignesh Solanki
 - 3.3 Working Group on Intelligent Data Mining and Analysis: Zita Vale
 - 3.4 Working Group on Modern Heuristic Optimization: Kwang Lee
 - 3.5 Task Force on ISS Scope and Application Areas
 - 3.6 Review of WG and Task Force activities
- 4. Other Technical Activities ISS website
- 5. Linking ISS activities to application areas and industrial interests
- 6. Panels and Paper sessions for GM 2015 and other meetings
- 7. Tutorials
- 8. Other Business
- 9. Next Meeting

The meeting started at 11am. The chair welcomed everyone to the Intelligent Systems Subcommittee (ISS) meeting and passed around an attendance list, which was signed by 21 people attending the meeting.

- 1. The minutes of the ISS meeting at IEEE PES GM 2013 in Vancouver are approved.
- 2. Announcements

The Chair announced the list of panels supported by the ISS during the 2014 IEEE PES GM. This information is summarized in table 1.

Table 1: Panel Sessions sponsored by the IS Subcommittee in IEEE PES GM 2014, Washington DC

Session Type	Session Title	Time & Venue
Panel	Forecasting and Intelligent Control of	Tuesday, 29 July, 8:00 AM-10:00 AM
	Microgrids	
Panel	Challenges and Solutions of Big Data	Tuesday, 29 July, 10:00 AM-12:00 PM

	for Power System Operations*	
Panel	Data Mining for Power Market	Tuesday, 29 July, 1:00 PM-3:00 PM
	Regulatory Issues	
Panel	Modern Heuristic Optimization Test	Tuesday, 29 July, 3:00 PM-5:00 PM
	Bed on OPF	
Panel	Benefits and Challenges of Deploying	Thursday, 31 July, 8:00 AM-10:00 AM
	Multi-Agent Systems	

* Co-sponsored By ISS and Computer Analytical Methods subcommittee (CAMS)

3. Working Group (WG) and Task Force (TF) Activities

3.1 Working Group on Multi-Agent Systems – It was proposed by Steve Widergren that the scope of the Working Group on Multi-Agent Systems should be broader. Leigh Tesfatsion seconded the proposal.

The operation of the TF on Agent-based modelling has been discussed.

The WG meeting has been attended by 28 people.

The WG is preparing a tutorial proposal for IEEE PES GM 2016 and several panel sessions for IEEE conferences and ISAP.

- 3.2 Working Group on Intelligent Control Systems- Chair Ganesh Kumar Venayagamoorthy, Clemson University, USA
 - 3.2.1 Task-Force on Micro-Grid Control System Chair: Jignesh Solanki

The TF meeting has been attended by 40 people.

3.3 Working Group on Intelligent data Mining and Analysis- Chair: Zita Vale, Polytechnic of Porto, Portugal

The working group meeting has been attended by 24 people. The most important points of the meeting are the planned panels, the journal special issue that has been proposed, and the work on the public data sets for R&D activities which are made available in the working group website (<u>http://sites.ieee.org/psace-idma/data-sets/</u>).

3.4 Working Group on Modern Heuristic Optimization: Chair :Kwang Lee,Baylor University

The WG meeting has been attended by 19 people.

Half of the chapters for the book that is being prepared by the WG are almost completed; further contribution is required for the remaining chapter.

The competition that the WG held has been very successful and results will be presented in the panel organized by the WG.

The WG has ellected the following officer for a 2 years term:

- Chair: Kwang Lee

- Vice-Chair: Jose Rueda

The WG is committed to increase the interactions with IEEE Computational Intelligence Society (CIS).

3.5 Task Force on ISS Scope and Application Areas

The Task Force is inactive and should be cancelled. The activities envisaged for the TF will be undertaken in the scope of the ISS.

3.6 Review of Working Group and Task Force activities

IEEE PES is undertaking a revision of WG and TF, so as to avoid overlapping.

4. Other Technical Activities - ISS Website

Even though last year it was requested to forward the updates of working groups so as to update the website, no encouraging responses were received. All working groups were once again requested to forward the updates to Zita Vale, Polytechnic of Porto, Portugal (<u>email.zitavale@gmail.com</u>).

A new WG or TF on Internet of Things (IOTS) to be co-chaired by Ratnesh Sharma and by Ganesh Kumar Venayagamoorthy was proposed.

5. Linking ISS activities to application areas and industrial interests

The need for increasing the participation from industry was emphasized. It was reiterated that effort to be made to organize panels with special invitees from industries.

6. Panel and paper sessions for IEEE PES GM 2015 and other meetings

Last year five panels were proposed and all got accepted. Similarly for GM 2015 five panels are proposed, one by each WG and one for the IS subcommittee, co-sponsored by Computer Analytical Methods subcommittee (CAMS), on "Challenges and Solutions of Big Data for Power System Operations".

The details of the panel sessions proposed for the IEEE PES GM 2015 are given in table 2.

	Chair/Organizer		
WG/TF	Name	Email	Session Title
WG ICS	Ganesh Kumar	gvenaya@clemson.edu	Benchmarking challenges
	Venayagamoorthy		and test systems for
			intelligent control and
			management
WG ICS	Ganesh Kumar	gvenaya@clemson.edu	Coordinated control of AC
TF MGCS	Venayagamoorthy		and DC microgrids
WG IDMA	Germano Lambert-Torres	germanoltorres@gmail.com	From smart metering and
	Zita Vale	email.zitavale@gmail.com	PMU data to intelligent
		zav@isep.ipp.pt	power and energy
			management
WG MAS	Koen Kok	koen.kok@tno.nl	Distributed optimization in
	Steve Widergren	Steve.Widergren@pnnl.gov	transactive energy systems
	Nikos Hatziargyriou	<u>nh@power.ece.ntua.gr</u>	
WG MHO	Istvan Erlich	istvan.erlich@uni-due.de	Stochastic Optimization for
	Jose Rueda	j.l.ruedatorres@tudelft.nl	Smart Grid Operation

Table 2: Panel Sessions proposed by the ISS for the IEEE PES GM 2015, Denver, Colorado, USA

Besides these panel sessions, several other topics are being considered for panel sessions to be organized in the scope of other meetings (IEEE ISGT, IEEE PES T&D, IEEE ISGT Europe, ISAP).

7. Tutorials

The following tutorials have been proposed to IEEE PES GM 2016:

- Intelligent Systems Support for Transactive Energy Systems: The Fundamentals (WG on MAS)

- Intelligent controller for microgrid which led by Sukumar Mishra (The WG on Intelligent Control Systems).

8. Other Business

The following upcoming events were announced:

- Mini Symposium on Smart Grid Control, Computer, and Communications (SmartGridC3) in the scope of the IFAC 19th World Congress, August 2014, Cape Town, South Africa

- IEEE SSCI, CIASG, December 2014, Orlando, USA
- PSC 2015, March 2015, Clemson, USA
- ISAP 2015, September 2015, Porto, Portugal
- IEEE SSCI, CIASG, December 2015, Cape Town, South Africa
- IFAC Symposium on Power Plants and Power Systems Control, December 2015, Delhi, India.

Alexandre da Silva is steping down from his position as ISS chair. Zita Vale will assume the chair position from 2015 and Sukumar Mishra the vice-chair position. In this way, the ISS technical secretary position will become vacant.

Prof. N. P. Padhy volunteered to be the next ISS technical secretary and Prof. Mori Hiroyuki has been proposed by Prof. Kwang Lee to the position. However, no conclusion was drawn and the new technical secretary is yet to be announced. The rules to fill the position should be carefully followed. It is suggested that the ISS member consult PSACE P&P available in http://standards.ieee.org/about/sasb/audcom/pnp/PE_PSACE.pdf.

9. Next meeting

The next meeting of ISS will take place in Denver, Colorado, in the scope of IEEE PES GM 2015.

The meeting was adjourned at 01:00pm

Respectfully submitted,

Sukumar Mishra

ANNEX: IEEE PES GM 2013 IS Subcommittee Meeting Attendance List

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Name	Institution	Email
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