

**Working Group on Intelligent Data Mining and Analysis (IDMA)
Intelligent Systems Subcommittee**

2023 IEEE PES General Meeting

Monday, July 17, 2023, 11:00 AM-12:00 PM (GMT-4)

**Bayhill 19 of the Hyatt Regency Hotel
Orlando, Florida**

Chair: Zita Vale, Polytechnic of Porto

The meeting started at 11:00 AM with the following **Agenda:**

- 1 – Approval of the meeting agenda
- 2 – Welcome and introduction of attendees
- 3 – Approval of the minutes of the 2022 IDMA Working Group meeting
- 4 – Publications and panel session organization
- 5 – Activities follow-up, roadmap, and plan
- 6 – Working group website
- 7 – Adjournment.

1 – Approval of the meeting agenda

The agenda was unanimously approved.

2 – Welcome and introduction of attendees

The Chair welcomed everyone present in the meeting and each attendee introduced him/herself. The attendance list has been signed by 25 people that attended the meeting fully or partially.

3 – Approval of the minutes of the 2022 IDMA Working Group (WG) meeting

The minutes were approved unanimously.

4 – Publications and panel session organization

The progress on the book covering the WG topics has been discussed. The book is now published in Wiley's and being showcased in the Wiley's press booth during this conference. The book is titled "Intelligent Data Mining and Analysis in Power and Energy Systems: Models and Applications for Smarter Efficient Power Systems" and has been edited by Zita A. Vale, Tiago Pinto, Michael Negnevitsky, and Ganesh Kumar Venayagamoorthy.

Unfortunately, no panels from this WG have been accepted by ISS for IEEE PES GM 2023. Nevertheless, a panel related to the WG TF Open Data Sets (ODS) has been accepted and will take place during IEEE PES GM 2023:

- Benchmarking of Artificial Intelligence Methods for Energy Generation and Consumption Forecasting, Tuesday, July 18, 2023, 1:00 PM-3:00 PM GMT-4, Celebration 5, Hyatt Regency Hotel (TF ODS)

The organization of panels in future conferences has been discussed, considering the most relevant topics under the WG domain. The outcomes should be sent to the WG

chair so that the draft IDMA panel session proposals are presented during the ISS meeting.

The following topics for panel proposals for IEEE PES-GM 2024 have been discussed and will be elaborated to be submitted to ISS:

- Intelligent management of distributed storage for sustainable energy communities;
- Storage-based business models for intelligent and sustainable energy systems;
- Artificial Intelligence based energy management systems and market models for 100% renewable energy power systems;
- Intelligent methods for planning and operation of electric and autonomous vehicles.

Ganesh Kumar Venayagamoorthy, ISS chair, suggested to submit the panels based by order of priority (sorted from highest to lowest priority).

WG members will also explore the possibility to organize panel sessions in other IEEE conferences, namely in IEEE PES T&D, IEEE ISGT and other events for which the WG topics are relevant.

For ISGT Europe (Grenoble, October 2023) an industry panel session has been proposed by João Soares:

- Intelligent applications for energy communities and storage applications

5 – Other WG activities

The task force on Open Data Set (ODS) is meeting later in the afternoon - Monday, July 17, 2023, 3:00 PM-4:00 PM (GMT-4) Bayhill 19 of the Hyatt Regency Hotel.

Activities concerning use cases and data sets for data mining applications in power and energy systems which have been launched and managed by IDMA working group are being continued in the scope of this TF. The working group members are invited to participate in the TF meeting and to contribute with new inputs to the data sets published in the subcommittee web site (<http://sites.ieee.org/pes-iss/data-sets/>). The call for data sets will be disseminated in Power-Globe.

The high relevance of IDMA scope and aim to the on-going challenges of the industry has been largely discussed. The participants agreed that IDMA should list a set of relevant and very concrete research questions to be discussed.

6 – Working group website

Working group members are encouraged to contribute to the material published in the working group webpage by sending suggestions of relevant information to be included (please email them to zav@isep.ipp.pt or to email.zitavale@gmail.com).

7 – Adjournment

The meeting was adjourned at 12:00 PM.

Respectfully submitted,

Zita Vale