

IEEE SSCI 2017

Special Session Proposal

Title of the special session

Catching load flexibility potential in Smart Grids

To which symposium is this special session proposed to

2017 IEEE Symposium on Computational Intelligence Applications in Smart Grid (IEEE CIASG'17)

Names of proposers

Pedro Faria, Polytechnic of Porto, Portugal, pnfar@isep.ipp.pt

Kumar Venayagmoorthy, Clemson University, USA, gvenaya@clemson.edu

Juan F. De Paz, University of Salamanca, Spain, fcofds@usal.es

Oscar Garcia, Nebusens, Spain, oscar.garcia@nebusens.com

Description of the special session

Load flexibility, deployed under a diversity of incentive and price-based demand response programs, has a huge potential to the increase of the smart grid efficiency. The aim is to take full advantage of the potential of consumers' demand flexibility, while ensuring their proper remuneration and increasing the efficiency of the whole energy and power system.

In spite of having already proved to be a very valuable and flexible resource with low cost when compared with alternative resources, demand response use is still at very low levels around the world. The identification of the main obstacles to the effective use of demand response, and of the most prominent potential solutions to overcome them, lead to the urgent need for further developments.

The contributors for this special session will bring their experience in the development and use of effective solutions in the field.

List of potential contributors

Once we know that the Special Session is approved, we'll widely disseminate it so that people from the academy and from the industry working in the session topics submit additional papers.

Some potential contributors:

- Kumar Venayagamoorthy, Clemson University, USA
- Pamod Herath, Clemson University, USA
- Juan M. Corchado, University of Salamanca, Spain
- Juan F. De Paz, University of Salamanca, Spain
- Oscar Garcia, Nebusens, Spain
- Zita Vale, Polytechnic of Porto, Portugal
- Pedro Faria, Polytechnic of Porto, Portugal
- Tiago Pinto, University of Salamanca, Spain