



# Information about the Call for Expression of Interest in PhD Studies within the Collaborative Doctoral Partnership between the University of Žilina and Joint Research Centre of the European Commission

## UNIVERSITY

University of Žilina  
Slovakia



## FACULTY

Faculty of Management  
Science and Informatics



## STUDY PROGRAM

Applied Informatics /  
Intelligent Information  
Systems

## ADVISOR

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## CALL INFORMATION

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## APPLICATION UNTIL:

31 May 2019

## Collaborative Doctoral Partnership

PhD topic will be developed within the framework of the collaborative doctoral partnership between the Joint Research Center of the European Commission (JRC) and the University of Žilina. It is expected that the student will start and finish PhD studies at the University of Žilina and will spend a considerable part of the study (up to 24 months) at the JRC in Ispra (Italy). During this time period the student will be paid according to the corresponding grant holder scheme<sup>1,2</sup>.

The JRC will also associate with the topic JRC advisor and will provide relevant data and access to the necessary research infrastructure.

<sup>1</sup> [https://ec.europa.eu/jrc/sites/jrcsh/files/jrc\\_granholder\\_rules.pdf](https://ec.europa.eu/jrc/sites/jrcsh/files/jrc_granholder_rules.pdf)

<sup>2</sup> [https://ec.europa.eu/jrc/sites/jrcsh/files/jrc\\_ispra\\_vademecum-post-2014\\_en.pdf](https://ec.europa.eu/jrc/sites/jrcsh/files/jrc_ispra_vademecum-post-2014_en.pdf)

## Topic: *Assessment of innovative solutions for the European electricity market*

### Problem description

To achieve the Energy Union's objectives, the electricity consumers are expected to become more active players in the energy markets; the retail and wholesale electricity markets are to be better linked; the feasibility of new market arrangements (including e.g. nodal pricing schemes) needs to be assessed and system adequacy should be met in the face of growing integration of renewable energy sources. Considering this background, the PhD candidate is expected to assess options, challenges and merits of innovative market schemes for the European electricity wholesale market. S/he is expected to carry out desktop-based research and develop methods and tools to study nodal pricing solutions for the integrated electricity market and/or assess the adequacy of the power system via optimization and probabilistic approaches.

### Expected outcomes

Outcomes will be new methods / algorithms / tools to analyse pricing mechanisms for integrated electricity market, assessment and comparison of pricing schemes.

Information about the topic and conditions of the doctoral studies within the Collaborative doctoral partnership with the Joint Research Center of the European Commission: [Lubos.Buzna@fri.uniza.sk](mailto:Lubos.Buzna@fri.uniza.sk)

Call Information: <https://www.fri.uniza.sk/en/stranka/call-for-expression-of-interest-in-phd-studies>