



The **Horizon Europe MSCA Doctoral Network *FITNESS (For active disTribution NETworks in Smart grids)*** is looking for 13 talented and motivated Doctoral Candidates (DCs) with the skills, knowledge and enthusiasm needed to face the FITNESS research challenge taking advance to start their Research Career in the prestigious European Programme Horizon Europe, Pillar 1 Excellent Science, Marie Skłodowska Curie Actions.

The FITNESS Doctoral Network (DN) aims to train the next generation of excellent researchers equipped with a full set of technical and complementary skills to develop high-impact careers in frontier research on active distribution networks in smart grids.

**The 13 DC job offers will be officially open in EURAXESS by the end of January**

All interested to apply must count with an Official Certificate enabling to initiate the Doctoral work (Master, or official contract justifying they are being dedicated to research work during at least 4 years). They must also accomplish the mobility rule in [wp-2-msca-actions\\_horizon-2023-2024\\_en.pdf](#): They must not have resided or carried out their main activity (work, studies, etc.) in the country of the recruiting beneficiary for more than 12 months in the 36 months immediately before their recruitment date.

The gross salary published in page 109 of 142 of the [wp-2-msca-actions\\_horizon-2023-2024\\_en.pdf](#) will be adjusted according to the country coefficient, family charge and social taxes in each Doctoral Candidate situation.

If you are interested to be engaged, please contact at your prompt convenience to the Supervisor for the DC position that you find more exciting to apply by sending **your expression of interest** in the proposed research, together with cv and references if any.

Open DC positions in FITNESS Horizon Europe MSCA Doctoral Network:

- DC1 - Innovative market models in distribution networks. Host Supervisor: Javier Contreras, UCLM (Spain). Secondary Supervisor: Mahdi Pourakbari AALTO (Finland). Secondments: AALTO (Finland), R2M (Italy). Topic of Secondments: P2P markets. *Supervisor contact: [javier.contreras@uclm.es](mailto:javier.contreras@uclm.es)*
- DC2 - New VPP management models. Host Supervisor: Javier Contreras, UCLM (Spain). Secondary Supervisor: Mahdi Pourakbari AALTO. Secondments: AALTO (Finland) R2M (Italy). Topic of secondments: VPP markets. *Supervisor contact: [javier.contreras@uclm.es](mailto:javier.contreras@uclm.es)*
- DC3 - Developing and applying new tariff models to end-users. Host Supervisor: Mahdi Pourakbari, AALTO (Finland). Secondary Supervisors: Hanna M. Kujawska

and Bruno de Oliveira e Sousa SIEMENS Energy (Norway). Secondments: SIEMENS Energy (Norway), UCLM (Spain). Topic of secondments: Market flexibility. Supervisor contact: [mahdi.pourakbari@aalto.fi](mailto:mahdi.pourakbari@aalto.fi)

- DC4 - Developing flexibility quantification methods to enhance DSO and TSO interaction. Host Supervisor: Mahdi Pourakbari, AALTO (Finland). Secondary Supervisor: Javier Contreras, UCLM (Spain). Secondments: SIEMENS ENERGY (Norway), DTU (Denmark) UCLM (Spain). Topic of secondments: Digitalisation. Supervisor contact: [mahdi.pourakbari@aalto.fi](mailto:mahdi.pourakbari@aalto.fi)
- DC5 - Integrated community energy systems. Host Supervisor: Mahdi Pourakbari, AALTO (Finland). Secondary Supervisor: Javier Contreras, UCLM (Spain). Secondments: SIEMENS ENERGY (Norway), UCLM (Spain). Topic of secondments: Energy Communities. Supervisor contact: [mahdi.pourakbari@aalto.fi](mailto:mahdi.pourakbari@aalto.fi)
- DC6 - Decentralized operation and planning considering TSO-DSO interaction. Host Supervisor: Elena Fernández, MINSAIT (Spain). Secondary Supervisor: Javier Contreras, UCLM (Spain). Secondments: AALTO (Finland), DTU (Denmark), Phase to phase (Netherlands). Topic of secondments: Network Planning. Supervisor contact: [efernandezf@minsait.com](mailto:efernandezf@minsait.com)
- DC7 - Decentralized control in distribution networks. Host Supervisor: Emilio Ghiani, UNICA (Italy). Secondary Supervisor: Mahdi Pourakbari, AALTO (Finland). Secondments: AALTO (Finland), R2M (Italy) Topic of secondments: ICT protocols. Supervisor contact: [emilio.ghiani@unica.it](mailto:emilio.ghiani@unica.it)
- DC8 - Advanced communication protocols in active distribution networks. Host Supervisor: Emilio Ghiani, UNICA (Italy). Secondary Supervisor: Bikash Pal, ICL (United Kingdom) Secondments: ICL (United Kingdom), R2M (Italy). Topic of secondments: Co-simulation. Supervisor contact: [emilio.ghiani@unica.it](mailto:emilio.ghiani@unica.it)
- DC9 - Digital twin prosumer-aware energy communities. Host Supervisors: Marco Martalo and Virginia Pilloni, UNICA (Italy). Secondary Supervisor: Mahdi Pourakbari, AALTO (Finland). Secondments: AALTO (Finland), Siemens Energy (Norway). Topic of secondments: Digital Twin Energy Community. Supervisor contact: [marco.martalo@unica.it](mailto:marco.martalo@unica.it)
- DC10 - A new edge computing framework for distribution networks. Host Supervisor: Javier Contreras, UCLM (Spain). Secondary Supervisor: Bikash Pal, ICL (United Kingdom). Secondments: ICL (United Kingdom), Phase to phase (Netherlands). Topic of secondments: Edge Computing. Supervisor contact: [javier.contreras@uclm.es](mailto:javier.contreras@uclm.es)
- DC11 - Advanced voltage management for distribution systems with high share of RES. Host Supervisor: Bikash Pal, ICL (United Kingdom). Secondary Supervisor: Javier Contreras, UCLM (Spain). Secondments: UCLM (Spain), R2M (Italy). Topic of secondments: Advanced mgt. Control. Supervisor contact: [b.pal@imperial.ac.uk](mailto:b.pal@imperial.ac.uk)
- DC12 - Robust Volt-Var control without centralized computations. Host Supervisor: Firdous Ul Nazir, GCU (United Kingdom). Secondary Supervisor: Kaushik Das, DTU

(Denmark). Secondments: DTU (Denmark), Siemens Energy (Norway). Topic of secondments: Vol-Var Control. Supervisor contact: [firdousul.nazir@gcu.ac.uk](mailto:firdousul.nazir@gcu.ac.uk)

- DC13 - Edge computing assisted operational security in distribution networks. Host Supervisor: Bikash Pal, ICL (United Kingdom). Secondary Supervisor: Anton Ishchenko, Phase to phase (Netherlands). Secondment: Phase to phase (Netherlands). Topic of secondments: Communication Protocols. Supervisor contact: [b.pal@imperial.ac.uk](mailto:b.pal@imperial.ac.uk)

FITNESS will develop an outstanding research-for-innovation programme, and a unique training programme that combines hands-on research training, interactive schools and hackathons, innovation management and placements with industry partner organisations has been designed for the DCs who will participate in the network. Alongside the exciting research topics related to active distribution networks, the research programme will also include state-of-the-art technology to develop a new Data Science platform that will facilitate a virtual research environment to foster collaboration, data sharing and testing of innovative solutions to significantly increase the value of the ongoing research.

The network will provide an interdisciplinary and inter-sectoral context to foster creativity in tackling active distribution networks challenges by developing solutions for energy accessibility.

The results of this project will impact upon all the new energy production and consumption in distribution networks. They will give us a new understanding of leading-edge models for the different energy exchange solutions including communication and control algorithms to allow the deployment of the results in scalable and replicable environments.

DCs will be trained in business innovation to extend their focus beyond the academic context, to be able to identify added-value products or services with the guidance from established researchers and entrepreneurs. As a result, a research-for-innovation mindset will be developed to provide enhanced career prospects for the fellows, equipping them with a complete set of thematic, technological and innovation skills.

The most talented and motivated candidates will be selected to participate in the network's interdisciplinary collaborative research training, preferably starting before May 2025. The assessment shall be carried out by the FITNESS recruitment team.