



Call for Expression of Interest
Marie Skłodowska-Curie Postdoctoral Fellowship
(HORIZON-MSCA-2024-PF-01-01)

The University of Malta (UM) is interested in hosting Marie Skłodowska-Curie Action fellows to work in its research teams and welcomes expressions of interest from excellent post-doctoral researchers to apply for the Postdoctoral Fellowship call.

University of Malta (UM) is the sole public and highest teaching institution in Malta, with its structures being in line with the Bologna Process and the European Higher Education area. UM has a 400-year history and there are over 11,500 students including 1,000 foreign/exchange students from nearly 92 different countries, following fulltime or part-time degree and diploma courses. Around 3,500 students graduate each year. UM is comprised of 14 Faculties and several other campuses: at Valletta, Marsaxlokk and Gozo. As of 2020, the UM employed a total of 2,848 employees including academics, administrative, technical and industrial staff (1,885 on a full-time basis and 963 on a part-time basis). Over the past ten years, the UM has been involved as coordinator and partner in numerous EU-funded projects under various Programmes including Horizon Europe, Horizon 2020, FP7, Erasmus+, Lifelong Learning Programme, INTERREG, National Funding and various other international and national programmes and initiatives. The UM is also represented in a number of European and International University networks and groups.

[Faculty of Engineering](#)

[Department Electrical Engineering](#)

The Department of Electrical Engineering forms part of the Faculty of Engineering at the University of Malta. The department has been at the forefront of research and lecturing in various areas of electrical engineering: Power Electronics and Distributed Generation; Power Systems and Grid Integration of Renewable Energy Sources (RES); Electrical Machines and Drives; and Electrical Services. We strive to achieve excellence in these areas by our contribution to lecturing, research and innovation in collaboration with both local and international partners and academic/research institutions.

The project shall be concerned with Electrical Transportation. The two areas that shall be focused on shall be integrated drives/charges in Electric Cars and the other area shall look at the electrical drives used in marine applications. For the first topic, the research shall be oriented at decreasing the amount of power electronics on board of EVs and use the electric drive both for traction and fast charging. In the second topic, the focus shall be on optimisation of the electric propulsion system in electric vessels to achieve maximum performance and efficiency under varying marine environmental condition. Although the application areas are different, one is land based and the other is sea based, the concept of the control and optimisation of electric drives is common to both areas.

Research Field: Information Science and Engineering (ENG)

Keywords: Electrification of Transportation,
Power Electronics, Electrical Drives,
Electrical Machines



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The selected candidates will receive dedicated support from the supervisor [Prof. Ing. Cyril Spiteri Staines](#), and the Research Support Services Directorate to write a successful proposal and submission.

Interested candidates must be in possession of a doctoral degree with not more than 8 years post PhD research experience and must not have resided in Malta for more than 12 the past during the past 3 years. Furthermore, their research interests should be relevant to the above project. Kindly send a covering letter and CV to the corresponding supervisor, [Prof. Ing. Cyril Spiteri Staines](#), keeping in copy funding.rssid@um.edu.mt with 'MSCA-PF-2024 *'candidate name'*' as the email subject by **24 May 2024**.