

CALL FOR APPLICATIONS (Call ID: 141/2026)**Post/s of Full-Time Research Support Officer I or II****Project DevSiAn – “Carrier Transport and Stability Mechanisms of Silicon Anodes in All-Solid-State Batteries under Coupled Electro-Mechanical Fields”****Funded by the SINO-MALTA Programme of Xjenza Malta**

And any other projects undertaken by the Institute for Sustainable Energy

1. Applications are invited for a Research Support Officer (RSO) to carry out duties in relation to the DevSiAn Project, which is funded by Xjenza Malta. The RSO may also be required to work on other projects undertaken by the Institute for Sustainable Energy.
2. Applicants must be in possession of a Bachelor of Engineering or Science with knowledge of Chemistry and/or Materials Science. Preference will be given to candidates with a Master's Degree in Chemistry and/or Materials Science.

The University of Malta is an Equal Opportunity employer.

3. The selected candidate must be living in Malta for the period of employment.

4. The initial remuneration per annum, inclusive of any cost-of-living adjustments is €27,207 (RSO I) or €30,327 (RSO II).
5. The post is for a period of up to 23.5 months.
6. Candidates must upload their covering letter, curriculum vitae, and certificates (certificates should be submitted in English) and contact details of at least two referees **through this form** <https://www.um.edu.mt/hrmd/workatum-projects> by not later than **Monday, 2nd November 2026**.

Late applications will not be considered.

7. Further information may be obtained from <https://www.um.edu.mt/hr/recruitment/projects/> and should you have any queries, please send us an email on projects.hrmd@um.edu.mt

Office of the University,
Msida, 19th October 2026

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Post/s of Full-Time Research Support Officer I or II

Project DevSiAn – “Carrier Transport and Stability Mechanisms of Silicon Anodes in All-Solid-State Batteries under Coupled Electro- Mechanical Fields”

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Further Information

1. The project aims to develop highly conductive/ion-conductive and strong-stable solid-state silicon-based anodes to overcome key constraints such as low-rate performance, low energy density, and short cycle life of solid-state batteries. This project aims to reveal the improved conductivity mechanism of alloyed silicon-based materials through alloying technology, tackling the challenge of high carrier migration barrier at the silicon/electrolyte interface, developing a "Three-in-One" adhesive for ion migration-electron conduction-mechanical properties, revealing the reversible "dissociation-coupling" mechanism of multiple bonding structures on the stress of alloyed silicon anode during lithiation, and solving the problem of rapid capacity decay caused by internal structure damage due to the large volume expansion of alloyed silicon in solid-state electrolytes. The University of Malta will be responsible for the preparation and electrochemical performance verification of silicon anodes based on different binders, the technological development of the whole set of characterization techniques required for all-solid-state batteries and the provision of the required equipment support and scientific input. The outcomes of this project will be possible through the use of the different laboratory tools and complementary scientific expertise available at Xi'an Jiaotong University, China and the University of Malta, Malta, making this collaboration essential for the successful completion of the proposed project.
2. Further information may be obtained by contacting Dr Ing. Marija Demicoli at marija.demicoli@um.edu.mt. The RSO may also be required to work on other projects undertaken by the Institute for Sustainable Energy.
3. The main duties and responsibilities of the appointee will consist of carrying out research duties including:
 - a. working closely with the project coordinator and project partners throughout the project;
 - b. producing project deliverables within the time frames specified in the project description;
 - c. attending project-related meetings in Malta and abroad;
 - d. writing scientific conference or journal papers related to the project, and presenting them at relevant conferences;

- e. assisting in dissemination activities related to the project;
 - f. abiding by the conditions imposed by the project; and
 - g. performing any other project-related tasks as instructed by the project coordinator.
4. The appointee will be expected to work at such places and during such hours as may be determined by the University authorities.
5. The selection procedure will involve:
- a. scrutiny of qualifications and experience claimed and supported by testimonials and/or certificates (copies to be included with the application);
 - b. shortlisting; and
 - c. an interview and / or extended interview.
6. The post is for a period of up to 23.5 months, which will be subject to a probationary period and to the provisions of the Statutes, Regulations and Bye-Laws of the University of Malta which are now or which may hereafter be in force.

Office of the University,
Msida, 19th October 2026