

Exciting [Faraday Undergraduate Summer Experience \(FUSE\)](#) paid internship opportunities for summer 2026.

Studying a STEM degree? Wondering what career to pursue? Interested in finding out more about the battery sector? Keen to spend time with a dynamic community of pioneering battery researchers seeking to find solutions to support a fully electric future?

The Faraday Institution is offering an internship program for undergraduate students to spend 8-weeks working on battery related projects.

Project title: Identification of Failure Signatures for Advancing Lithium-Ion Battery Safety

Project description:

Faraday Institution SafeBatt project focuses on advancing the fundamental understanding of safety and failure mechanisms in battery systems. This internship offers a unique research opportunity to investigate early indicators of battery degradation and failure under non-ambient operating conditions. The intern will study the real-time behaviour and interdependence of battery electrodes using instrumented three-electrode cells, enabling precise separation of anode and cathode responses. The project will employ a suite of advanced characterisation and diagnostic techniques, including comprehensive electrochemical testing (CCCV cycling, EIS, and non-linear frequency response analysis (NFRA)), alongside high-resolution imaging methods such as SEM-SIMS. There will be opportunities to access to NMR, XPS and HAXPES facilities to monitor dynamic chemical and structural changes and to capture degradation processes as they occur. In addition to experimental research, the internship provides hands-on experience in battery forensics, access to state-of-the-art facilities, and close collaboration with a multidisciplinary team of highly skilled researchers.

Supervisor: Dr Puritut Nakhanivej (PDRA WP1), Dr Melanie Loveridge (Co-I WP1), Dr Maria Balart Murria (Project Engineer)

University: University of Warwick

Location: in-person program in Coventry, UK

Start date: The internship is a full-time role for 8 weeks, flexible during June – completed by 28th August 2026

Eligibility:

- Be registered full-time undergraduate student from a UK university, preferably undertaking physics, chemistry or materials science degrees. However, much learning support would be given to anyone new to this area of science
- Undertake the internship within the years of their undergraduate study (i.e., not in final year or during a subsequent Masters' programme).
- Not have been a FUSE intern in a previous year

Funding:

A salary of **£13.45**/hour will be provided. The funding is provided by the [Faraday Institution](#). The grant will cover national insurance etc.

Duties and responsibilities:

- Building instrumented 3-electrode pouch cells for multi-signal detection during cell operation and familiarisation with working in a dry room.
- Learning skills around performing electron microscopy and other key characterisation techniques such as NMR. Access to the University of Warwick state-of-the-art characterisation facilities.
- Writing cell test programs.
- Understanding how to process and interpreting cell test data.
- Understanding how to process microscopic data.
- Presenting the progress in regular meetings

Skills and experience:

- Interest in batteries and energy storage systems
- Familiar with documentation and reporting
- Familiar with presenting and discussing the results
- Confident communicator
- Willingness to learn and explore new areas
- STEM degree programme background

Additional activities:

- During the FUSE internship you will be able to attend Faraday Institution cohort events which will focus on a variety of topics to further develop your understanding of career opportunities in battery sector.
- This is an exciting opportunity to be part of a dynamic consortium focused on critical scientific understanding of safety in Li-ion batteries.
- You will learn some valuable skills, critical for effective understanding of batteries – and get a taste of what battery research life is really like.
- There will be opportunities to access to the University of Warwick state-of-the art characterization facilities: at Energy Innovation Centre (EIC) in WMG; at Advanced Materials and Manufacturing Centre (AMMC) in WMG; at Warwick Chemistry Department; and at Warwick Physics Department.
- There will be opportunities to be involved with disseminating the outcomes and great opportunity to engage with other FI researchers at WMG.
- You will be invited to some SafeBatt meetings, have the opportunity to participate and understand what other SafeBatt partners are researching.
- At the end of the programme, you will be invited to share a poster about your work and prizes will be awarded.

Application:

- Please apply to the internship via the [application form](#) and send your CV (pdf) to Puritut.Nakhanivej@warwick.ac.uk by **24th April 2026 at 23:59**.
- Please also complete this [survey](#) so we can keep you informed about future Faraday opportunities, including other FUSE internships that may need additional support with recruitment.
- Shortlisted candidates will be invited to a virtual interview following the deadline.

Diversity

The Faraday Institution is committed to creating a dynamic and diverse pool of talent for the fields of battery technology and energy storage.

Warwick is committed to building an organisation of mutual respect and dignity, promoting a welcoming, diverse, and inclusive working and learning environment. We recognise that everyone is different in a variety of visible and non-visible ways, and that those differences are to be recognised, respected, and valued. Where possible, we go beyond legislation to provide a place where everyone can thrive, supporting all staff to achieve their full potential. We aspire to remove economic, social, and cultural barriers that may otherwise prevent people from succeeding.

We therefore welcome and encourage applications from all communities regardless of culture, background, age, disability, sex/gender, gender identity or expression, ethnicity, religion/belief, or sexual or romantic orientation. To find out more about our social inclusion work at Warwick visit our webpages [here](#).

The University currently holds a Race Equality Charter Bronze Award, Athena Swan Silver Award and a Disability Smart Bronze Award. The University of Warwick is also one of the six founder institutions of the EUTOPIA European University Alliance.