Webinar for Indonesian and Malaysian Researchers

How to write a good proposal for the ISIS Neutron and Muon Source

Time - UK	Time - Jakarta	Time - Kuala Lumpur	Talk title
08.00	15.00	16.00	Introduction – Philip King
08.05	15.05	16.05	Funding for Malaysian and Indonesian researchers – Philip King
08.15	15.15	16.15	Short guide to getting access to ISIS – Emma Gozzard
08.25	15.25	16.25	How to write a good proposal for ISIS – Vicky Garcia-Sakai
09.00	16.00	17.00	Discussion on example proposals in breakout rooms
09.15	16.15	17.15	Feedback on example proposals
09.30	16.30	17.30	Q&A on proposal writing
09.50	16.50	17.50	Final comments and close

UKRI Science and Technology Facilities Council

ISIS Neutron and Muon Source

Welcome!

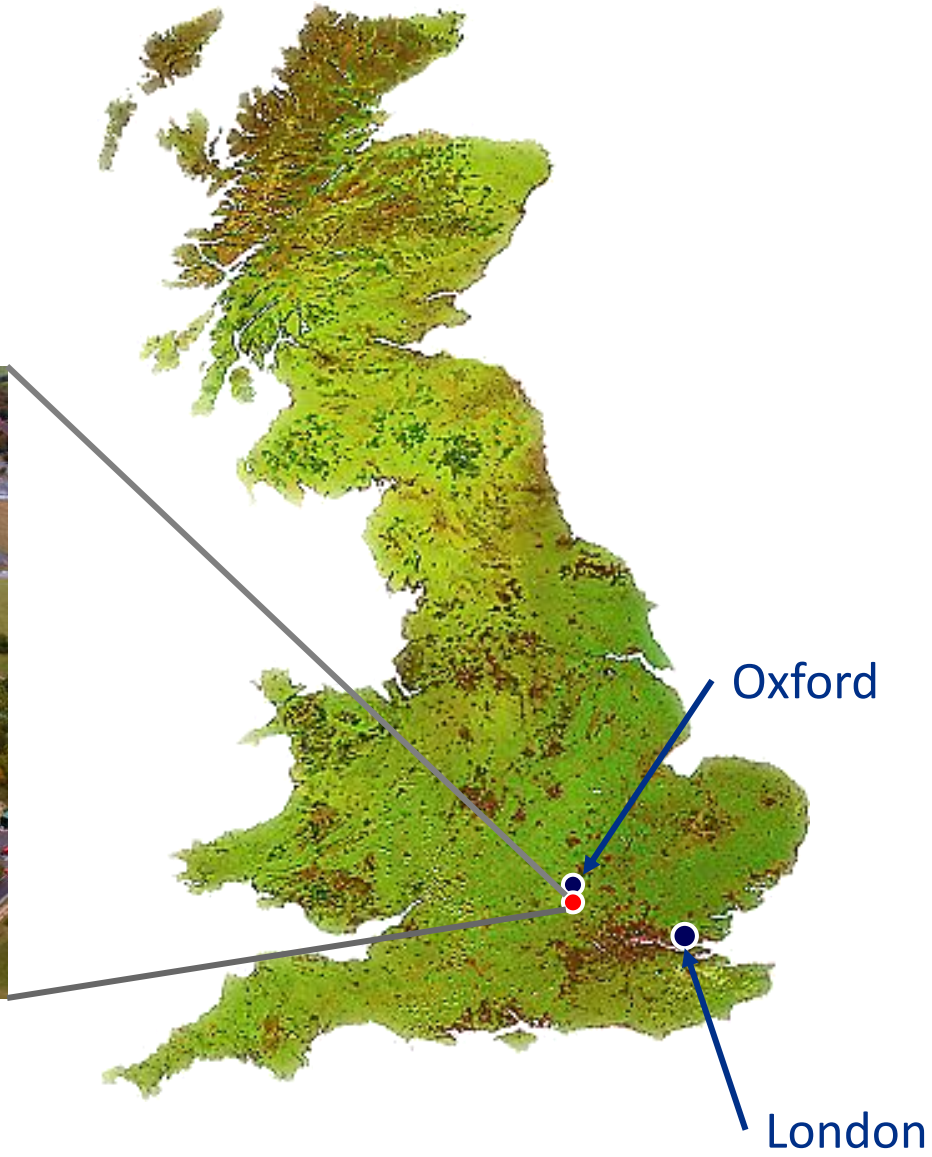
Funding for Malaysian and Indonesian researchers

Philip King
Associate Director, Partnerships & Programmes
ISIS Neutron & Muon Source

Indonesia & Malaysia webinar
5 March 2025

Where is the ISIS Neutron and Muon Source?

Rutherford Appleton Laboratory, UK



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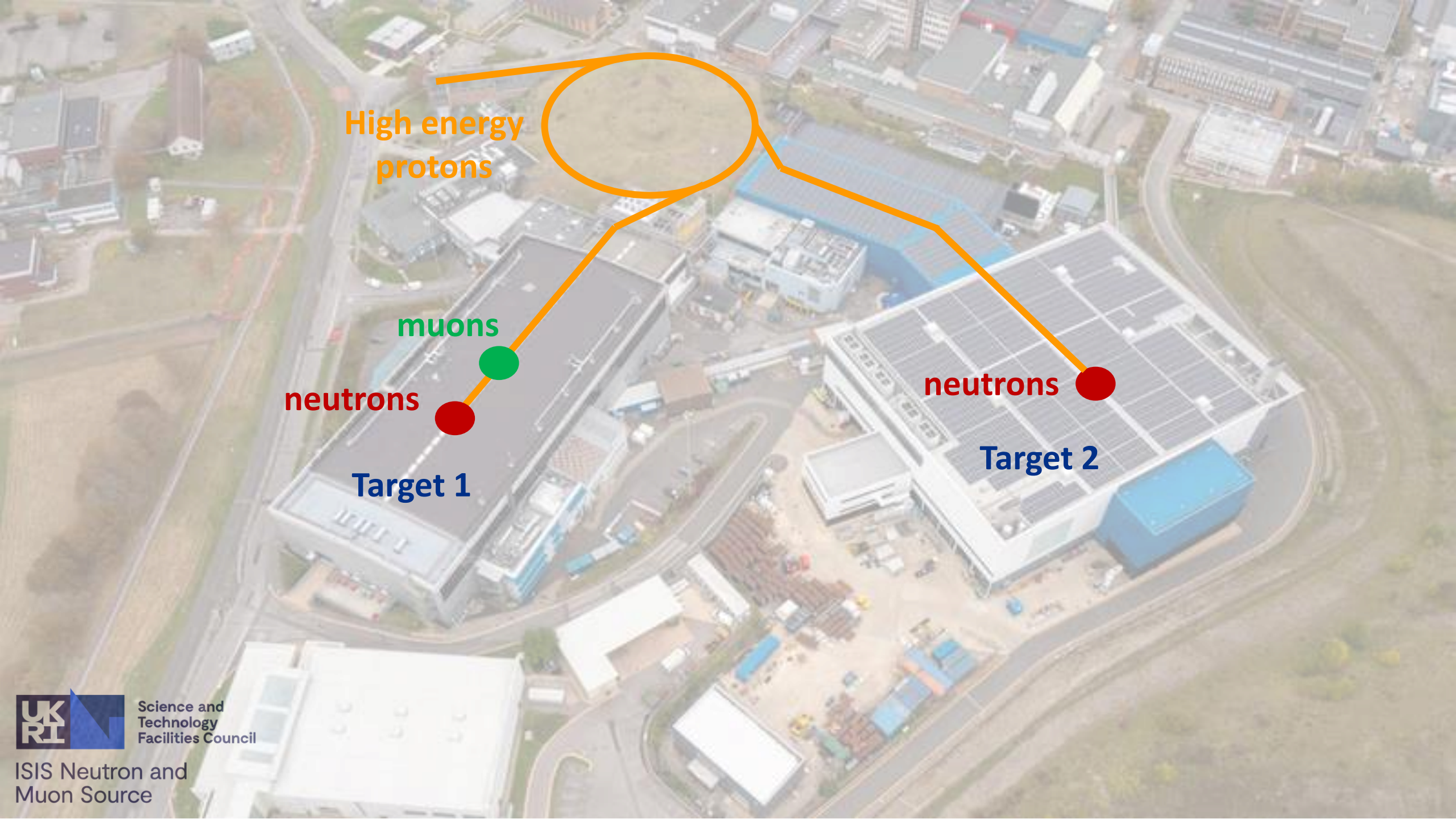
ISIS Neutron and Muon Source


RALSpace
Diamond Light Source
National Quantum Computing Centre
Central Laser Facility
ISIS Neutron and Muon Source
Rutherford Appleton Laboratory


Accelerator
Target Station 2
Target Station 1
ISIS Neutron and Muon Source



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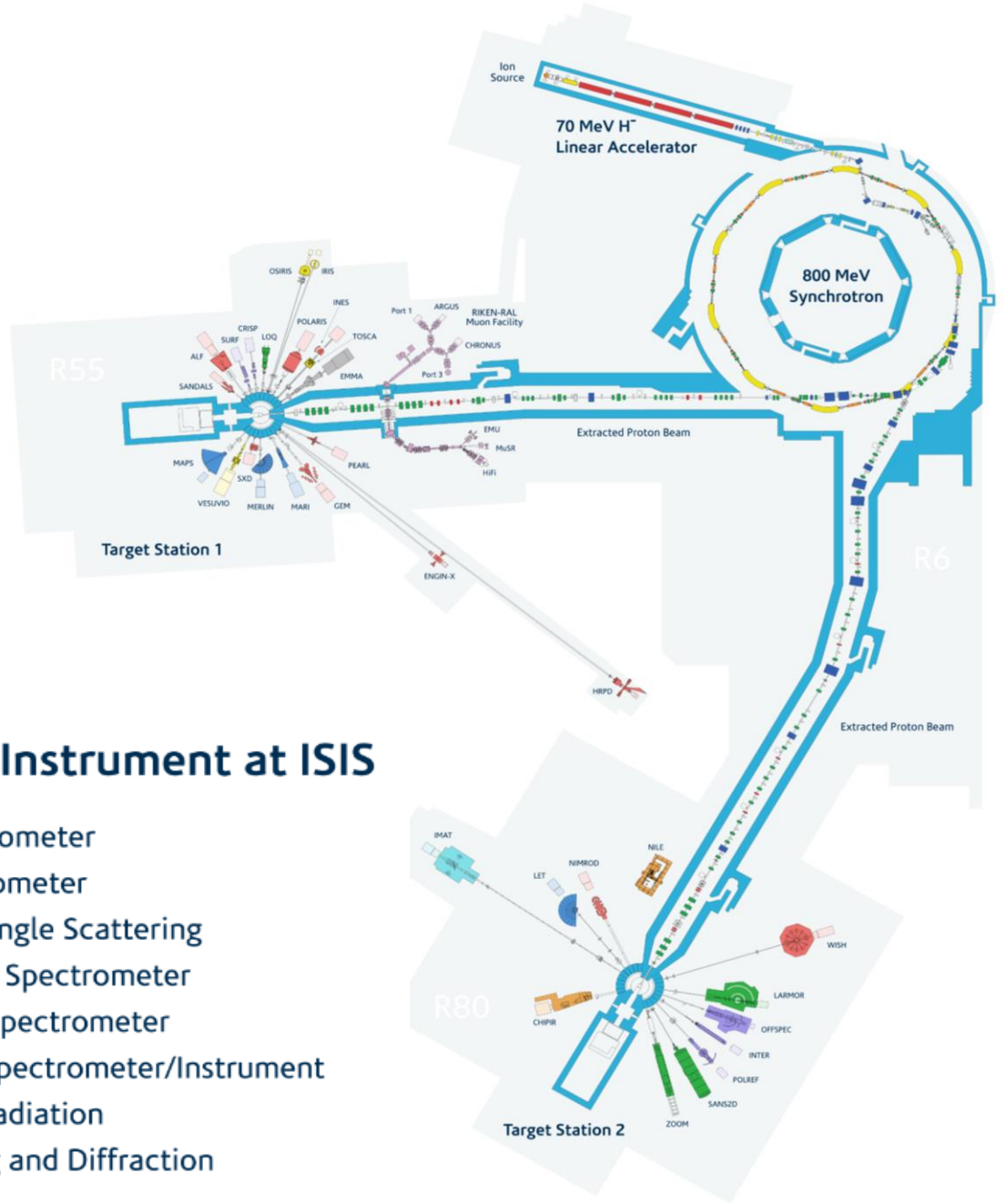
ISIS Neutron and Muon Source

ISIS instrument suite

35 instruments:

- Structure
  - Diffraction
  - Disordered materials
  - Small angle scattering
  - Reflectometry
- Dynamics
  - Quasi-elastic scattering
  - Inelastic scattering (excitations)
  - Vibrational spectroscopy
- Neutron imaging
- Chip irradiation
- Muons



Types of Instrument at ISIS

- Diffractometer
- Reflectometer
- Small Angle Scattering
- Indirect Spectrometer
- Direct Spectrometer
- Muon Spectrometer/Instrument
- Chip Irradiation
- Imaging and Diffraction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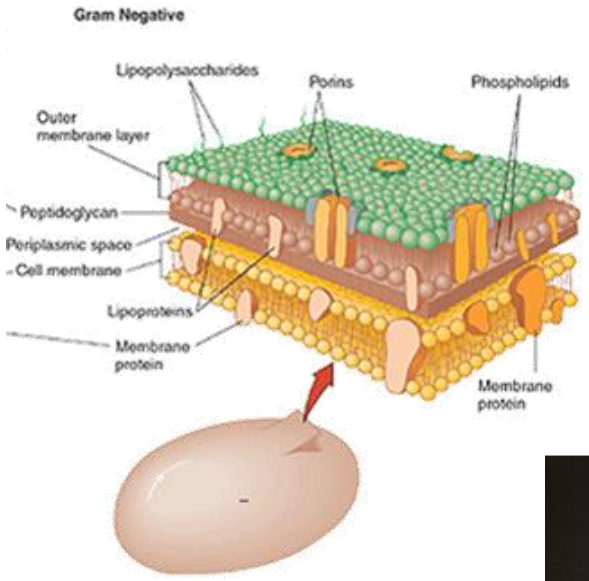
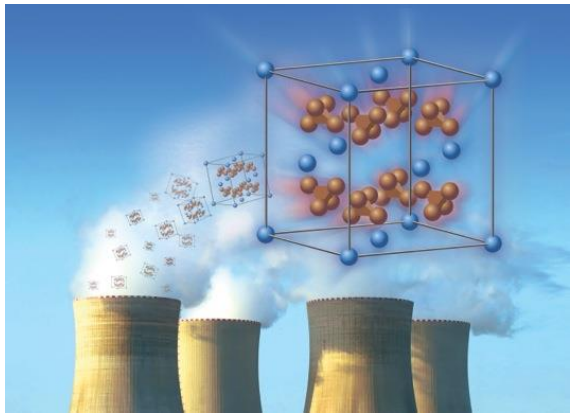
Science at ISIS

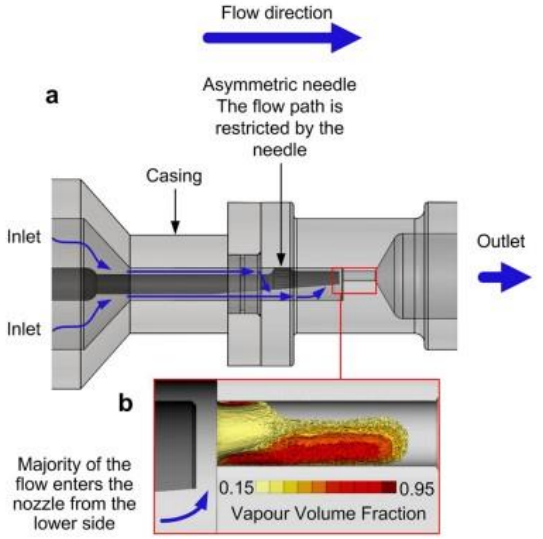
Exploring anti-microbial resistance



Improving thermoelectric materials

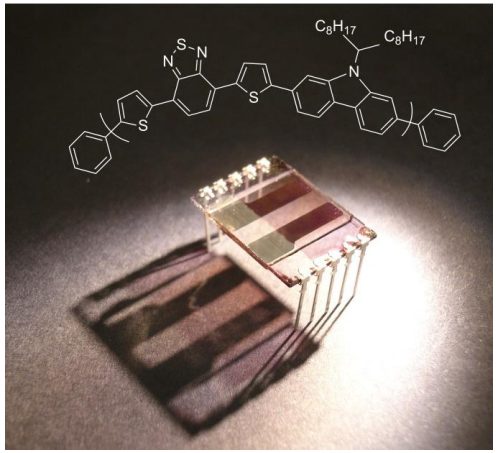


Engine fuel delivery efficiency

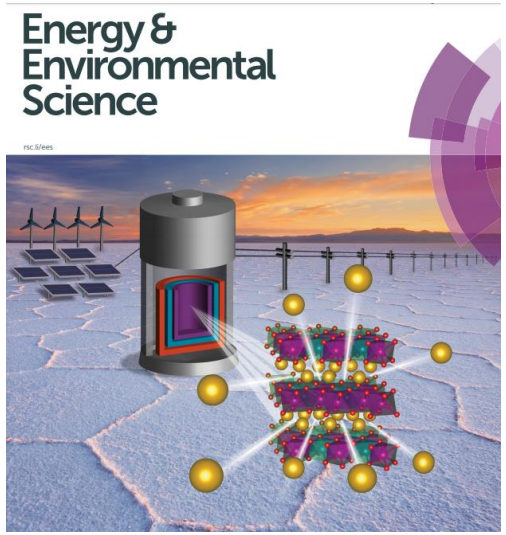


Reducing stress for Rolls Royce

Formation of plastic solar cells



Structural studies on Na-ion batteries



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ISIS Neutron and Muon Source

Neutrons and muons to advance knowledge and improve lives.

Opportunity for Indonesian and Malaysia researchers to use ISIS

UK International Science Partnerships Fund (ISPF) award, 2023 – 2027

Support for:

- Experiments at ISIS: beam costs
  Experiments at ISIS: travel and living costs
- Workshops, training
- Visits to the facility
- Dissemination of research results from ISIS experiments

Indonesia & Malaysia

UK ISPF funding

We can support:

- Up to two researchers per experiment
- Flight costs
- Other travel costs
- Food and accommodation whilst at RAL

Case study: ISIS and Indonesia – for a climate friendly future

Dr Indri Adilina has worked with ISIS since 2018 to establish a viable method of using palm oil biomass waste to generate biofuel to reduce Indonesia's reliance on fossil fuels.

With the support of dedicated scientific and technical teams at ISIS, Dr Adilina has used advanced techniques, such as INS (inelastic neutron scattering) and QENS (quasi-elastic neutron scattering) to harness the unique properties of neutrons. These studies have provided insight into the catalytic process involved in biofuel production and important information for catalyst design and optimisation.

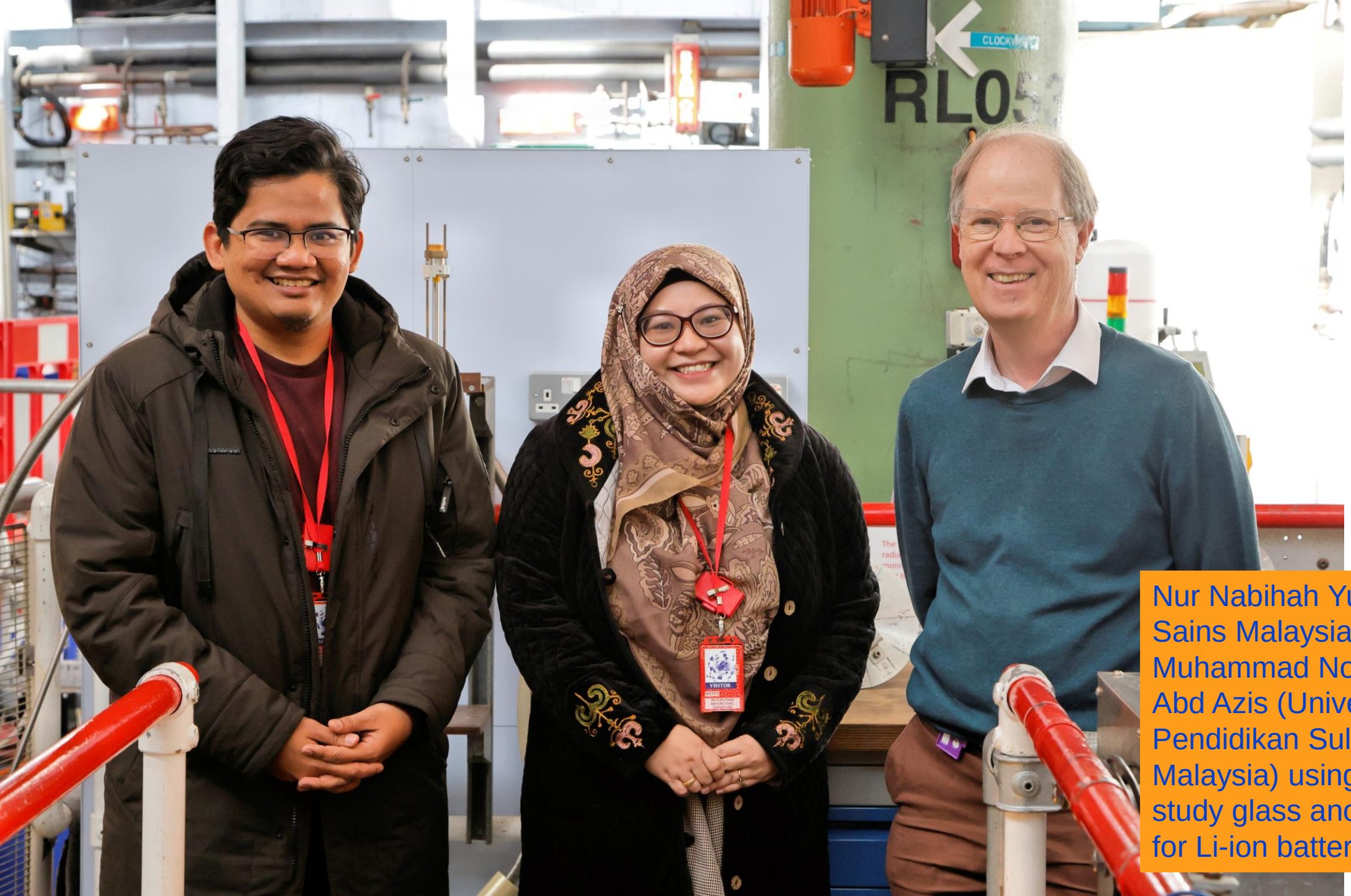
"Using neutron science we are trying to master the technology of biomass catalysis and establish whether bentonite clay, a renewable and abundant resource in Indonesia, could provide as a suitable catalyst support for the conversion of palm oil wastes into biofuel."

Dr Indri Adilina

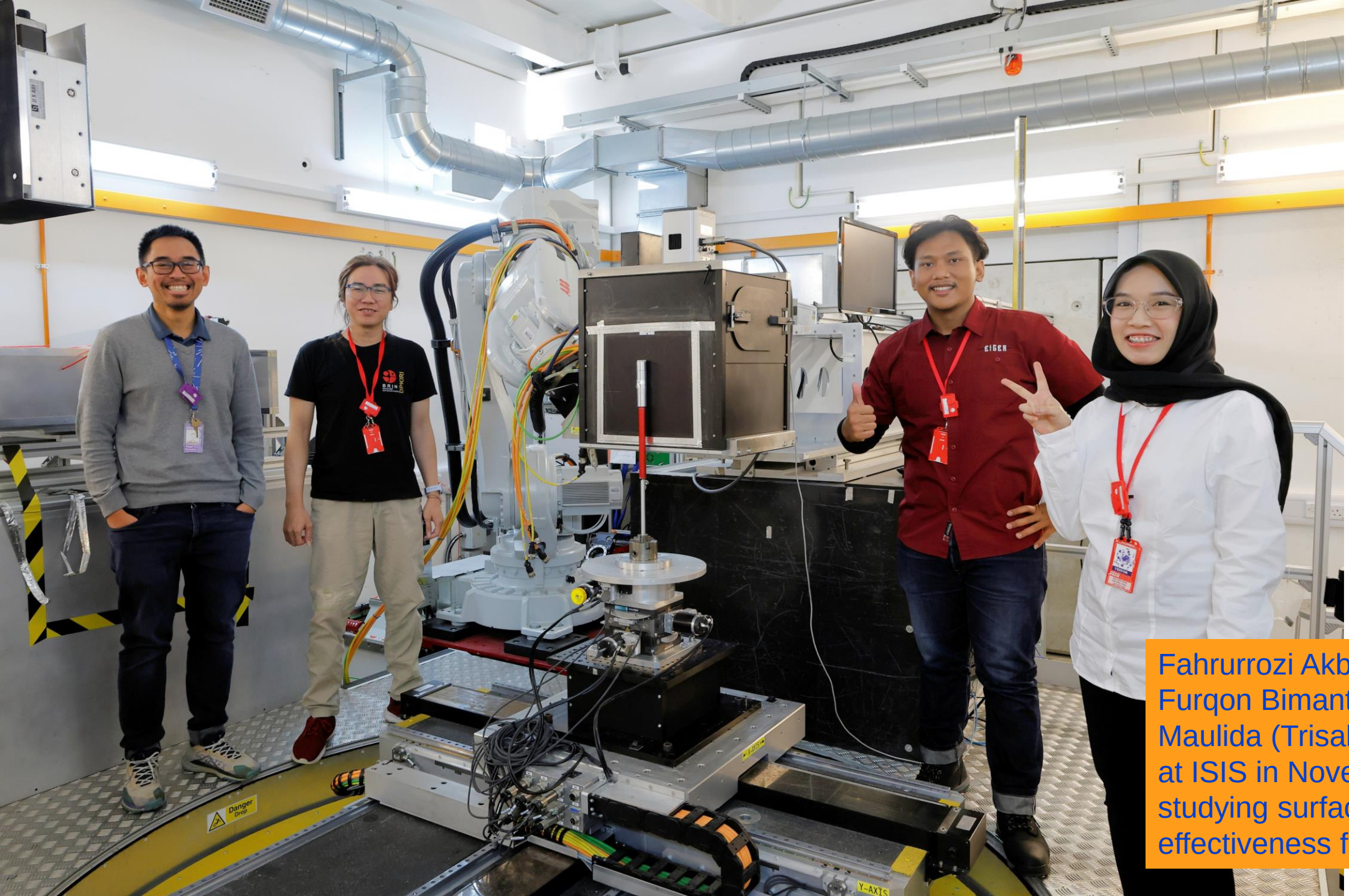
Researcher for The National Research and Innovation Agency (BRIN) of the Republic of Indonesia

Technology Facilities Council

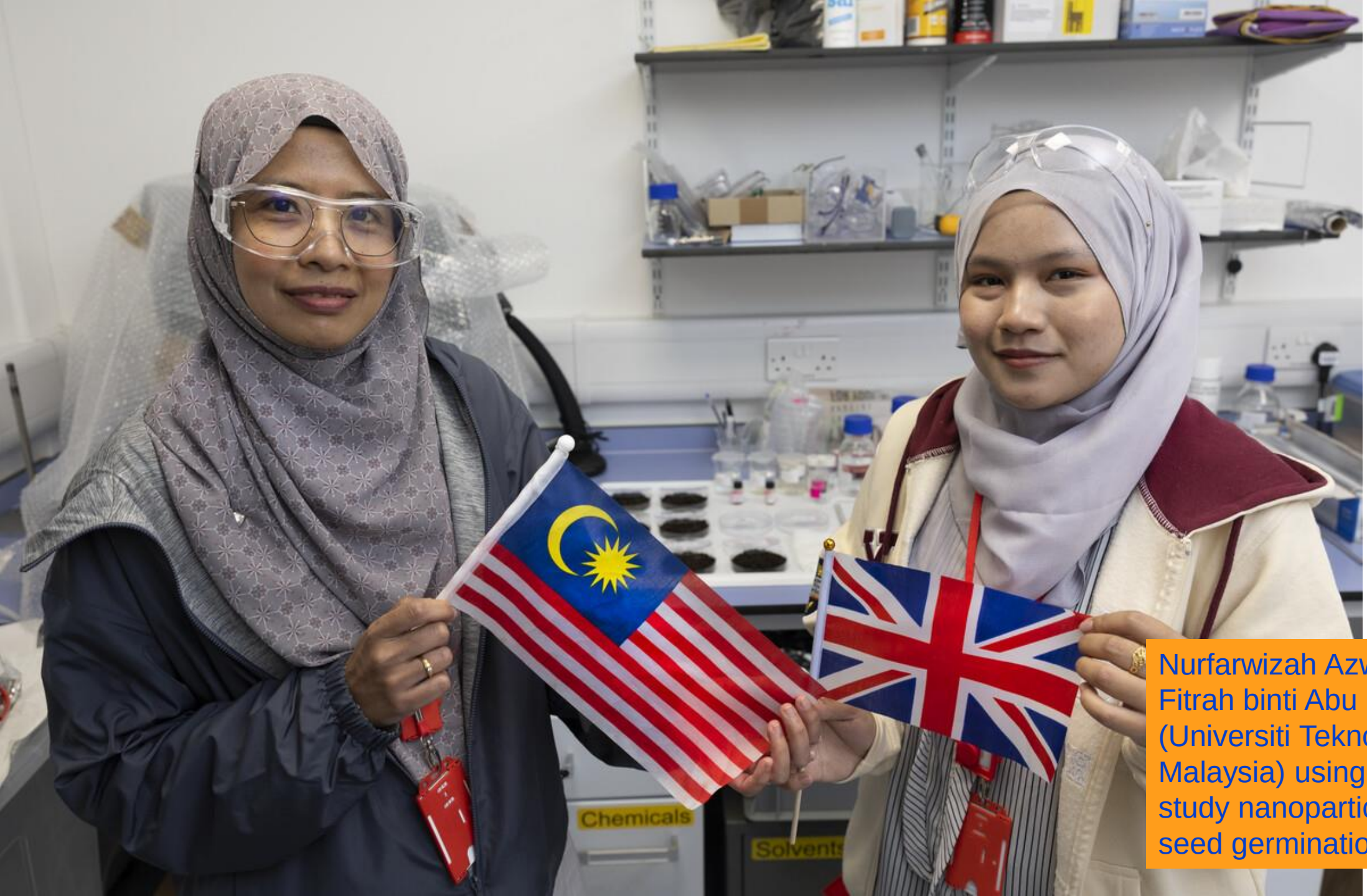
ISIS Neutron and Muon Source



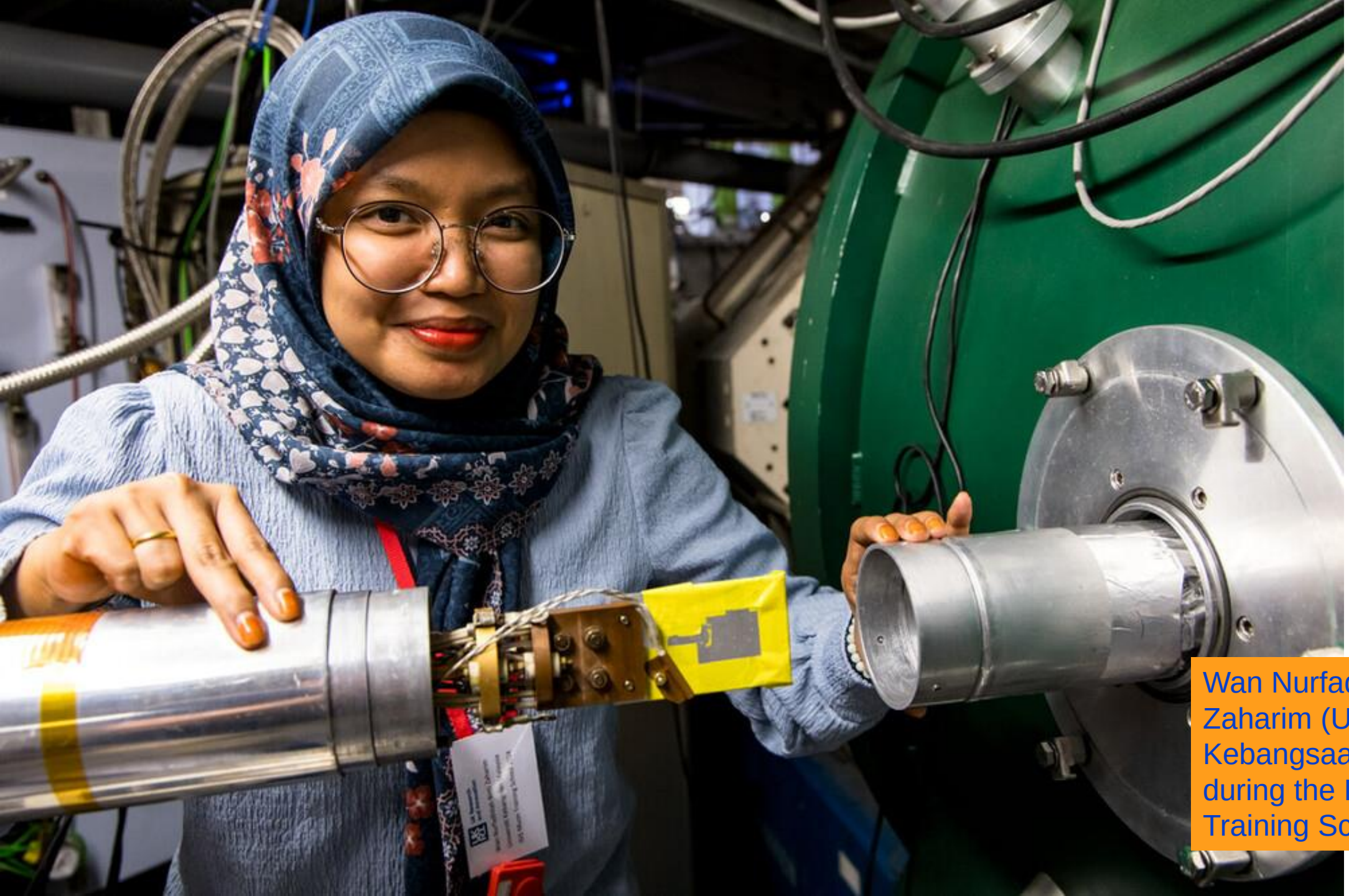
Nur Nabihah Yusof (Universiti Sains Malaysia) and Muhammad Noorazian Bin Abd Azis (Universiti Pendidikan Sultan Idris, Malaysia) using GEM to study glass anode materials for Li-ion batteries.



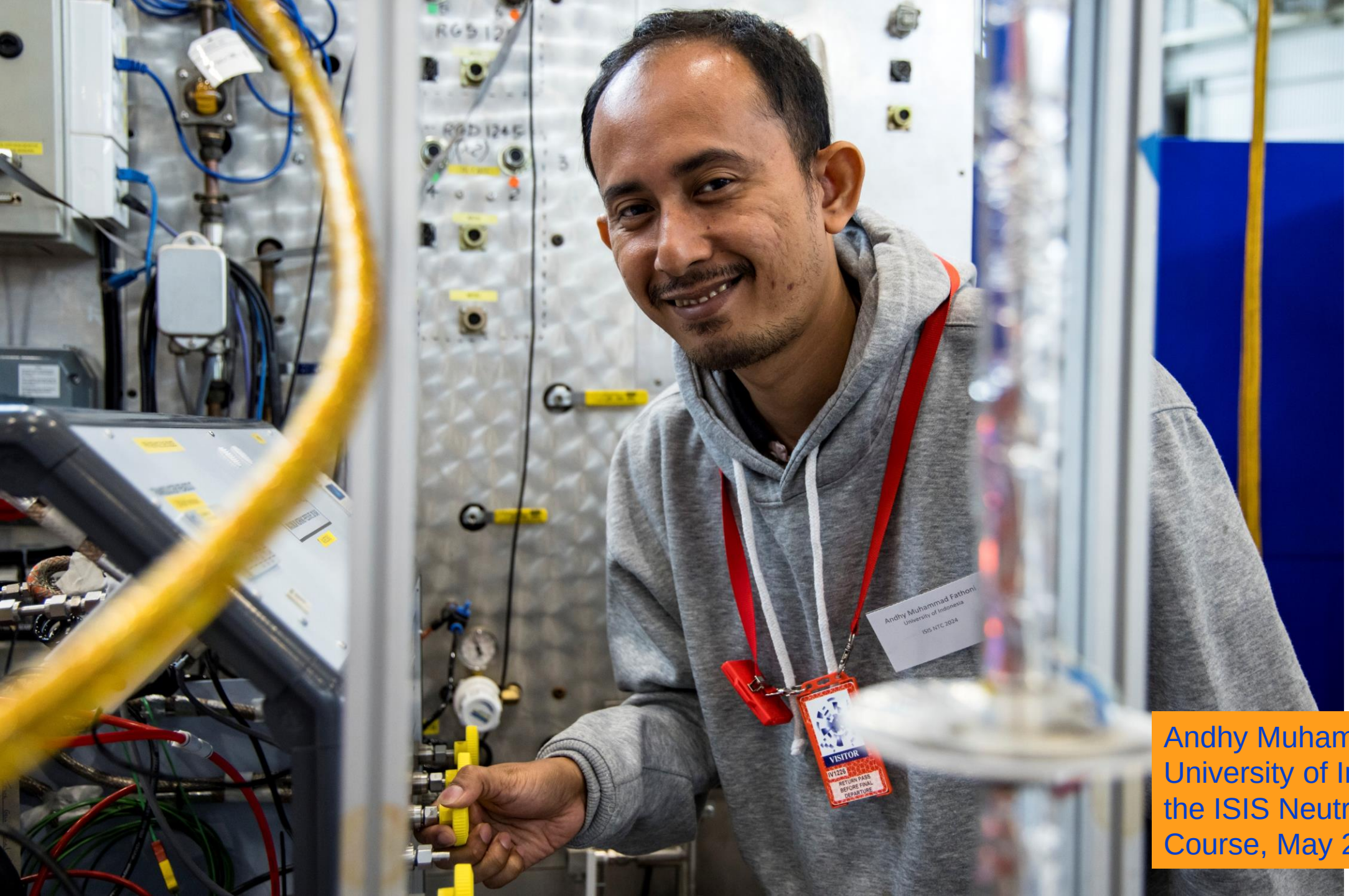
Fahrurrozi Akbar (BRIN), Furqon Bimantoro and Fajri Maulida (Trisakti University) at ISIS in November 2024 studying surfactant effectiveness for oil recovery



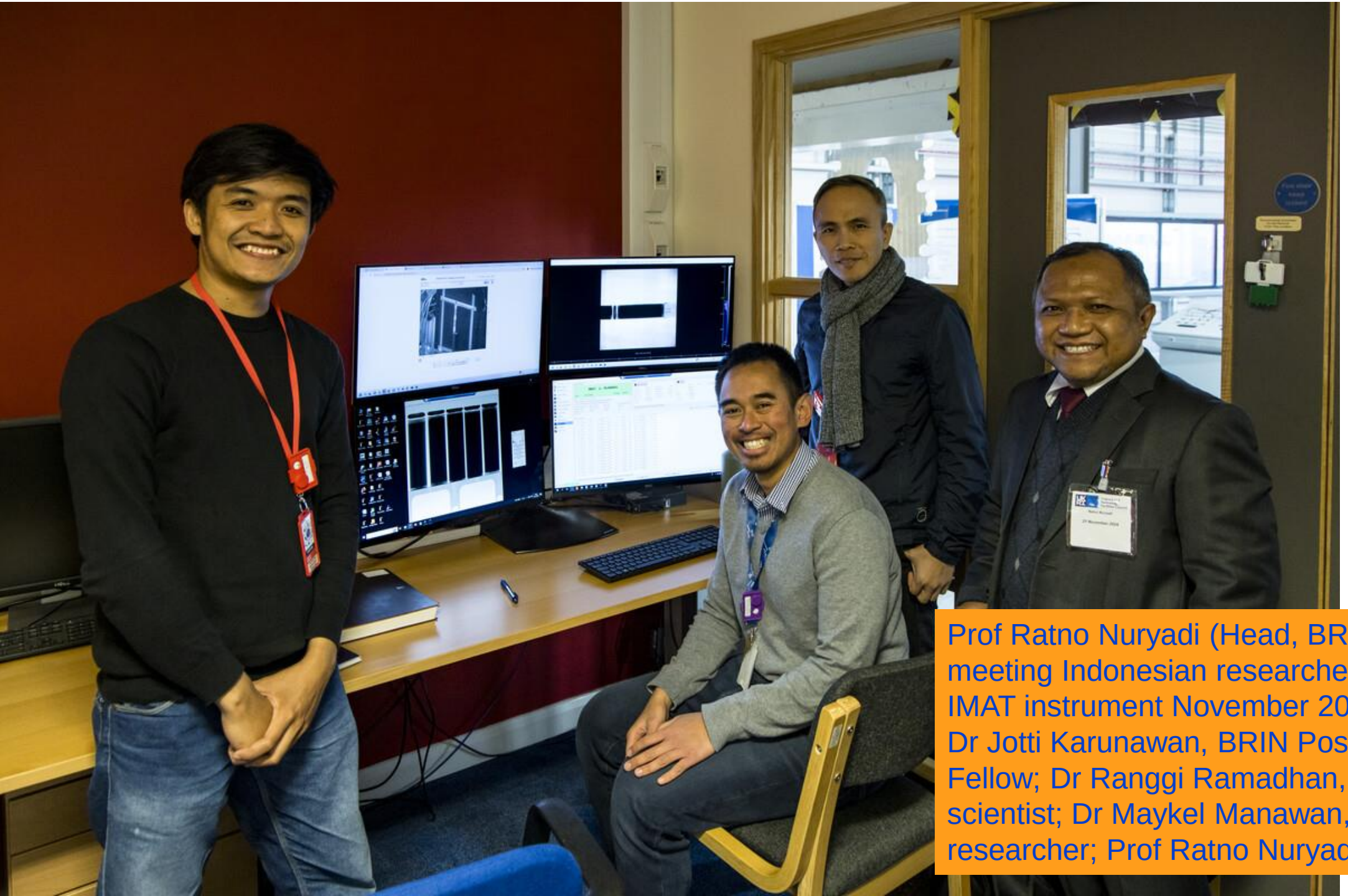
Nurfarwizah Azwan and Noor Fitrah binti Abu Bakar (Universiti Teknologi Mara, Malaysia) using IMAT to study nanoparticles to help seed germination.



Wan Nurfadhilah Binti Zaharim (Universiti Kebangsaan Malaysia) during the ISIS Muon Training School.



Andhy Muhammad Fathoni, University of Indonesia, at the ISIS Neutron Training Course, May 2024



Prof Ratno Nuryadi (Head, BRIN ORNS) meeting Indonesian researchers on the ISIS IMAT instrument November 2024. Left to right: Dr Jotti Karunawan, BRIN Postdoctoral Fellow; Dr Ranggi Ramadhan, ISIS instrument scientist; Dr Maykel Manawan, BRIN researcher; Prof Ratno Nuryadi.

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