



FLEET

ARC CENTRE OF EXCELLENCE IN
FUTURE LOW-ENERGY
ELECTRONICS TECHNOLOGIES

FLEET News: February 2024

As we consider FLEET's enduring legacy, members have been asked to propose ongoing outreach projects to illustrate components of relevant science to schools or public. See below for more.

This month's newsletter also includes our first FLEET intern, congratulations to FLEET members and another alumni interview.



Regards,

Agustin Schiffrin

FLEET Outreach Chair

In this edition of FLEET News:

- [FLEET Landing event](#)
 - [First FLEET intern](#)
 - [Members proposals for outreach tools](#)
 - [Industry-science COE hackathon](#)
 - [Sue Coppersmith AIP Lecturer](#)
 - [PhD submissions in January-February](#)
 - [Live Centre statistics](#)
 - [FLEET seminar in March](#)
 - [Member-nominated training](#)
 - [Kirrily Rule at UOW](#)
 - [Alumni profile: Dhaneesh Kumar](#)
 - [ECR authors this month](#)
 - [AIP / opto-microelectronics conference 2024](#)
 - [Australian Universities Accord report](#)
 - [Quantum tech defence funding open](#)
 - [Catch up on talks online](#)
-

FLEET 'landing' event

The **FLEET Landing event**, at Monash in May will draw inspiration from the success of our **2018 Launch event**, including insightful presentations on legacy, networking, and a science showcase featuring outreach demos and poster presentations.

First FLEET intern

Congratulations to Sangeet Kumar, who is the inaugural intern for the FLEET internship program. Sangeet is currently at ANSTO, working on a collaborative project with AI David Cortie and collaborator Zeljko Pastuovic, performing neutron reflectometry experiment to study ion-beam modified 2D materials.

FLEET funding will cover three more internships, with ANSTO and other opportunities [FLEET.org.au/internships](https://www.fleet.org.au/internships).



Prompting FLEET members for science-outreach projects

Centre funds are available to construct interactive demonstrations explaining relevant science to schools, students or public. **FLEET's Mobius superconductor track** has been enormously successful in engaging minds with science, but members' proposals need not be so grand. It could be an interactive gaming experience; something to help explain exciton-polaritons, use of optics/lasers to transform 2D materials, topology and zero-resistance, or even a simpler, smaller version of the levitating superconductor track.

Industry–science hackathon

The 2024 Better Futures hackathon will assign teams of researchers to solve industry challenges, with \$30,000 research funding plus \$15,000 prize money for the best solution.

Sue Coppersmith AIP Lecturer

Sue Coppersmith (UNSW) will be the 2024 Australian Institute of Physics Women in Physics Lecturer, and will be touring Australia talking to students, public and media about her work studying the physics of complex systems, including glasses, granular materials, biomaterials, magnetism, and quantum computing. Sue's first stop will be the VicPhysics Girls in Physics Breakfast in May.



PhD submissions in Jan/Feb

Congratulations to FLEET members submitting their PhDs in January-February, Prashant Kumar (RMIT), Mitko Oldfield (Monash) and Zhanning Wang (UNSW) - bringing to **67** the total number of PhD graduates from FLEET so far.



Live Centre stats

If you have ever wondered how many people have been in FLEET, how many ARC Laureates, Future or DECRA Fellows, collaborative publications or citations, all these stats and more are updated live at FLEET.org.au/statistics



Member-nominated training

FLEET is funding training towards whatever technical or transferable skills members think will help maximise their options inside and outside of academia. While members can select any relevant training, a team from across FLEET started a list of resources available on the FLEET website, which we hope could be a useful resource for others. [LINK HERE](#).

FLEET seminar in March

In person (Monash) and online 10AM Thursday 21 March, Prof Oleg Yazyev, will describe the search for new topological materials using high-throughput computational screening at EPFL in Switzerland. [Details online](#).

FLEET SEMINAR

In-silico discovery of novel topological materials

Prof. Oleg V. Yazyev, Institute of Physics, École Polytechnique Fédérale de Lausanne (EPFL)

Thursday 21 March 2024
10:00AM AEDT



Kirrily Rule UOW

Congratulations to FLEET PI and Communications Chair Kirrily Rule (ANSTO), who has been made a full Professor at the University of Wollongong.



Alumni profile: Dhaneesh Kumar

"Giving talks to FLEET members helped build my confidence presenting research talks. Practice makes perfect"

Dhaneesh Kumar was one of the original cohort of FLEET PhD students when the Centre was launched in 2017. We interviewed Dhaneesh about his career path after leaving FLEET (he completed his PhD in May 2021), and how he has used his technical and collaboration training at FLEET in his new position as a postdoc at the Max-Planck Institute for Solid State Research in Stuttgart. [Read more online](#).



Authors in February

Congratulations to FLEET early-career researchers who were authors on papers published this month: Brendan Mulkerin, Dawei Zhang, Dhaneesh Kumar, Elizabeth Marcellina, Mohammad Ghasemian, Maedehsadat Mousavi, Matthew Hendy, Richard Fuchs, Vivasha Govinden and Yasufumi, Nakano.

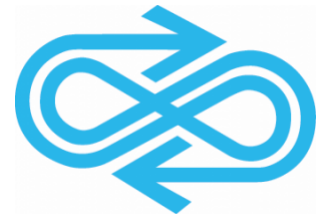


AIP / opto-microelectronics conference in December

2nd-6th December 2024: The Australian Institute of Physics Congress, co-located with the Conference on Optoelectronic and Microelectronic Materials and Devices (COMMAD), will be held at the Melbourne

Convention Centre.

Abstracts close mid-April. See [AIP-congress.org.au](https://www.aip-congress.org.au) for further details.



Australian Universities Accord report

The Australian Universities Accord Final Report makes 47 recommendations towards higher, more equitable participation, encouraging innovation, and meeting Australia's future skill needs, including energy, manufacturing, agriculture and public infrastructure. [Read the report online.](#)

- higher education attainment and participation targets
- the relationships between vocational education and training (VET) and universities
- the types of qualifications offered
- the current university funding model
- student contributions, repayments, and support
- the way industry and government use university research
- tertiary education policy making at the national level.

NSW technology funding

Applications are open for the **NSW government's MVP Ventures Program**, offering grants of \$25–50,000 to start-ups and SMEs to help commercialise highly innovative and new products or processes (TRL 3–9) to help them move along the technology readiness scale and attract investment. Applications close 30 April, with the following round opening 1 July.

Jobs board

The FLEET “jobs board” at [FLEET.org.au/jobs-board](https://fleet.org.au/jobs-board) is a useful resource for people looking for future positions. If you know of any positions of interest, let us know and we'll add them. Group leaders, we're happy to list your new positions here too.

Catch up on past talks

FLEET seminars and talks are available to catch up on YouTube:

- Shu Ping Lau (Hong Kong Polytechnic) **Ferroelectricity in 2D heterobilayers**
 - Michele Governale (MacDiarmid) **Corner states in 2D topological insulators**
 - Wendy Rogers (Macquarie) **Understanding researcher values to build better scientific outcomes**
 - Miguel Ugeda (Donostia) **Collective electronic states in 2D heavy fermion system**
 - Peter Abbamonte (Illinois) **Observing Pines' Demon with momentum-resolved EELS**
-

Grants and opportunities

Main Sequence Ventures (CSIRO's investment arm) deep-tech newsletter features over 40 companies with 300+ jobs on offer. **Sign up for the newsletter** to stay informed.

For ongoing outreach/development opportunities see **In2science** mentoring, and **CSIRO STEM Professionals in Schools**.

Previous news

Congratulations FLEET AI Francesca Iacopi (University of Technology Sydney), named an IEEE Fellow for contributions to integration strategies of nanomaterials in silicon technologies.



FLEET alum Oliver Paul was one of the original cohort of FLEET PhD students in 2017. Oliver shares his career path after leaving FLEET and how he uses technical and collaboration skills in his new position as a postdoc at Unité Mixte de Physique, France. [Read more online.](#)

Congratulations CI Torben Daeneke who has been made a full Professor at RMIT University. [Read more about Torben's work at FLEET.](#)



Congratulations to the 16 PhD candidates who submitted their thesis in 2023. Rishabh Mishra (who has since taken up a postdoc position at UNSW), Jack Muir, Mitchell Conway and Patjaree Aukarasereenont (all three in postdoc positions at CSIRO), Nam Van Ho, Sajinda Afrin, Yik-Kheng Lee and Yogesh Kumar, Phat Nguyen (researcher at Next Ore), Ben Lowe (postdoc position in the Czech Republic), Qile Li, Yi-Hsun Chen, Matt Gebert, Abdulhakim Bake (postdoc position at Griffith), Maedehsadat Mousavi and Zeb Krix.



Participating organisations

FLEET is The Australian Research Council Centre of Excellence in Future Low-Energy Electronics Technologies. Read more about our [participating nodes](#) and [partners](#) online.



