

The European research platform for the sustainable development of next-generation and future semiconductor chips



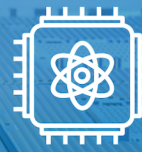
POWER



SENSE



SUSTAIN



THINK



CONNECT

Your free access to State-of-the-art Technologies.

INFRACHIP aims at advancing the state-of-the-art by **supporting comprehensive user projects** for path-finding research on sustainable Information and Communications Technologies (ICT) driven by the secure edge.

HOW?

By providing a simplified **EU funded access** route to a diverse interdisciplinary portfolio of offerings that will enhance the development of critical leading-edge semiconductor technologies.

WHO?

All **PhDs, researchers, Post-Docs, Academics, SMEs, companies** can apply. Access is possible remotely or in-person.

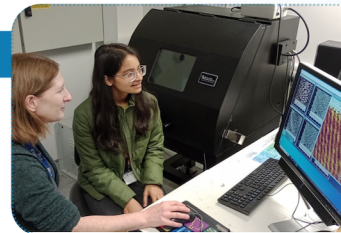
APPLY

Submit a technical enquiry: describe your requirements & discuss it with the relevant experts.



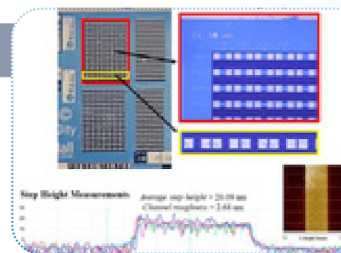
ACCESS

You discuss the type of access with the INFRACHIP contact team: Remote (sending sample)? Physical visit? How long? Ready to go? Go!



COMMUNICATE

INFRACHIP grants you free access in exchange for an acknowledgment in the outputs. We count on you to spread the word about INFRACHIP and boost innovation!



DISCOVER OUR INTERDISCIPLINARY OFFER

Power



- Energy autonomy
- Power electronics
- PMU design

INFRACHIP offers **a platform for novel solutions to extend the battery lifetime** of autonomous IoT nodes, **minimising energy consumption** through power electronics innovation and micro-power management as well as providing hybrid solutions to **harvest energy**.

Sense



- Advanced sensing
- Stretchable and flexible sensors
- Photonic sensing

Access to three technology blocks for **advanced sensing based on state-of-the-art platform technologies** such as electrochemical sensors, sustainable and flexible sensors for hybrid integration into conformable and/or biodegradable, recyclable, biobased substrates, and novel integrated photonic sensors.

Sustain

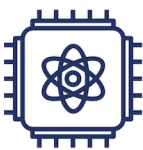


- Green Electronics & Substrates
- Green Sensors
- Hybrid SiP/SoC

INFRACHIP facilitates the development of **sustainable low-power electronics with low manufacturing cost and low environmental impact during manufacturing**. Access green concepts for substrates, inks, print and devices, sustainable sensors fabrication using laser-induced graphene, Hybrid/Heterogeneous Chip Integration & Packaging, Micro Transfer Printing.

All INFRACHIP activities tend towards sustainable goals.

Think



- Quantum and spin device engineering
- Component for neuromorphic computing

Access **novel components for energy-efficient computing paradigms** based on novel logic switches and on beyond CMOS and von Neumann architectures. These include technology blocks for quantum and spin device engineering and components for brain-inspired/neuromorphic computing, thereby enabling to explore solution for intelligence-on-the-edge and accelerators for the future edge-computing.

Connect



- RF components
- RF front-end design
- Short-range optical communication

Access what you need to **build energy-efficient radio and optical communications for autonomous hybrid systems for the secure edge**. The technology blocks on offer range from characterisation installations to complete set of process tools and libraries for the fabrication of microwave and photonic devices to novel platform technologies based on materials such as graphene and polymers.

Interested in learning more about INFRACHIP and what you can access?

We can present you the project or answer your questions, simply contact our interface team!

contact@infrachip.eu



Dr. Veda Sandeep Nagaraja, PhD
Programme Manager- EU Programme office
Senior Scientist-PiezoMEMS Group, Tyndall

Dr. Cian Ó Murchú
Senior EU Programme Manager, Tyndall

Dr. Giorgos Fagas, PhD MBA
Head of CMOS++ and EU Programmes, Tyndall