

School Research Strategy

The School of Engineering and Informatics comprises people engaged in leading the research that generates the knowledge and knowhow that drives advances that enable societies to prosper and economies to grow.

The School aims to further increase its influence, from knowledge creation through to end application and thus contribute to fundamental science as well as sustainable economic growth.

The School will continue to invest in our core research areas, which are both sector specific and cross-sector enabling technologies.

School Structure

The School of Engineering and Informatics comprises eight research groups,

- Cognitive and Language Processing Systems (CALPS), which addresses the science and engineering of complex systems for cognitively demanding, and data- and language-intensive domains, including the integration of methods from cognitive science, natural language engineering and machine learning,
- Creative Technologies (CreaTe), which encompasses research in digital design, including wearable technologies, and in human-computer interaction, with strengths in educational software, multi-modal interactions and motion capture,
- Dynamics, Control, and Vehicle Research Group (DCVRG), which undertakes automotive research and fundamental work in dynamics, control, and tribology,
- Evolutionary and Adaptive Systems (EASy), which conducts research in computational neuroscience, bio-mimetic machine learning and robotics, and cognitive and consciousness science,
- Foundations of Software Systems (FoSS), which works on a spectrum of topics ranging from theoretical computer science, including concurrency and program verification to applied software systems, including ubiquitous computing and the Internet of Things,
- Industrial Informatics and Signal Processing Research Group (IISPRG), which develops signal processing techniques, primarily of images, for a range of applications,
- Sensor Technology Research Centre (STRC), which works on the fundamentals and applications of sensors, flexible electronics, wearable technologies, mobile communications, and semiconductor detectors,
- Thermo-Fluid Mechanic Research Centre (TFMRC), which undertakes aerodynamic and heat transfer research in the area of gas turbine technology.

The research groups are aligned to our research strengths, to have the critical mass in their area, and so that every member of faculty is in the most conducive environment to pursue world-leading research.

Cross-cutting research themes

In addition to the research group structure our research strategy is in alignment with the University's interdisciplinary research strategy both on the level of individual researchers and through cross-cutting interdisciplinary research themes, such as Autonomous Robotics, the Sackler Centre for Consciousness Science, the Centre for Computational Neuroscience and Robotics (CCNR), and the Centre for Cognitive Sciences (COGS)

Research Strategy

The overall research strategy of the school is characterised by three strategic research aims:

- SRA1 To conduct world-leading research in our established core areas of artificial intelligence, cognitive science, computer science, creative technologies, and mechanical, electrical and electronic engineering.
- SRA2 To collaborate with researchers in other academic disciplines to use appropriate insights from those disciplines in our research, and to apply our research in other disciplines.
- SRA3 To collaborate with science and technology users to apply our research in industry and society and achieve impacts of international importance.

Collaboration

The School will continue to pursue its strong and successful collaborations with other Sussex Schools. It will continue to encourage the continuation of the numerous existing and the creation of further international collaborations, both in the form of formal consortia (e.g. with EU funding, HFSP, see also research income below) and informally, where there is scientific benefit.

Outputs and impact

The School is committed to publishing research results in the most visible and rigorous journals. It is also in full support of the open access movement and strives to make all work accessible in green or gold open access models. The preference for our best work is to be published either as full papers in leading international journals, or, where it is considered more prestigious, as full-length papers in leading international conferences. The School is committed to research excellence with impact, which includes, but is not restricted to, public engagement and commercial impacts.

External Income

The school will continue to build its relationships with research funders and continue diversifying its grant portfolio.

As a part of the engagement we will target and influence research council calls in collaboration with other schools and universities.

We will increase our portfolio of research projects in Europe and our engagement with Charities. UK government and US government funding will be encouraged where they meet the University's stringent ethical requirements.

The school is committed to increase its footprint of interactions with industry. The School is recruiting a business development manager to facilitate this area of growth; to support consultancies, research contracts, teaching led partnerships, KTPs and spin-out companies.

The School is developing an industrial doctorate that will complement the other industry engagement activities.