

Candidate Information

Position: Research Fellow: Bio-inspired electric skins
School/Department: School of Electronics, Electrical Engineering and Computer Science
Reference: 25/112931
Closing Date: Monday 10 November 2025
Anticipated Interview Date: Tuesday 25 November 2025
Duration: 18 months

JOB PURPOSE:

We are seeking a driven and passionate researcher to play a central role in the groundbreaking Leverhulme Trust project, "Bioinspired electronic skins with streamlined access to sensing pixels." The successful applicant will be responsible for taking intellectual leadership in the project-independently leading strands of the research programme while working under the overall guidance and supervision of the Principal Investigator.

The postholder will be instrumental in developing innovative research strategies, shaping research plans, and driving forward high-impact activity across electronics, microwave technology, signal processing, and applied robotics. In addition to advancing their own independent research, they will coordinate and integrate contributions from collaborators to ensure the project progresses cohesively and effectively.

Delivering this ambitious programme will pave the way for next-generation electronic skins with advanced multimodal sensing abilities, opening new opportunities for humanoid robotics, prosthetics, and biomedical sensing technologies. This role offers the chance to make a genuine world-class impact in an emerging area of science and engineering.

Key responsibilities will include:

- Leading independent and collaborative research within the project remit.
- Shaping and managing research directions in consultation with the Principal Investigator.
- Producing high-quality journal publications and disseminating results at international conferences.
- Liaising with external partners, stakeholders, and interdisciplinary collaborators.
- Contributing to mentoring and supporting junior researchers within the team.
- Engaging with outreach activities to broaden the project's impact.

If you are ambitious, creative, and eager to lead pioneering research that pushes the boundaries of scientific and technological innovation, we would love to hear from you.

MAJOR DUTIES:

1. Undertake and lead independent research of international quality within the scope of the Leverhulme Trust project, under the strategic direction and guidance of the Principal Investigator (PI).
2. Design, implement, and refine advanced research methodologies in the areas of electronics, bioinspired signal processing, microwave technology, and smart materials, ensuring alignment with the project's overall objectives.
3. Critically analyse, evaluate, and interpret experimental data and relevant literature, applying and advancing appropriate methodologies across electronic skins, analogue and digital electronics, microwave sensing, embedded systems, and sensors.
4. Produce and disseminate high-quality research outputs consistent with the aims of the project, including the preparation of publications in leading peer-reviewed journals and presentations at academic and professional conferences.
5. Collaborate closely with the PI and project team in the planning and delivery of research milestones, while also exercising intellectual independence in shaping specific strands of the programme.

6. Represent the project at national and international fora, and contribute to its visibility and impact through academic engagement and appropriate dissemination activities.
7. Assist the PI in the preparation of external research funding proposals, contributing to the long-term sustainability of the research programme.
8. Provide academic leadership and mentorship to junior researchers and students associated with the project, fostering a collaborative and supportive research environment.
9. Undertake additional duties as reasonably required to ensure the successful delivery of the project, including engagement with training and professional development opportunities.

ESSENTIAL CRITERIA:

1. Have or be about to obtain* a relevant PhD with specialisation in electronics, physics, microwave or RF technology, or computer science. (*About to obtain means obtaining PhD within 3 months of application.)
2. Recent relevant research experience to include:
 - A proven track record in undertaking and leading research in the area of electronics, experimental physics, microwave or RF technology, and/or embedded systems and sensors, smart materials.
 - Working effectively as part of a research team in the development and promotion of the research theme.
 - Experience in translating research findings into high-quality journal publications.
3. Strong publication record commensurate with the stage of career.
4. Evidence of ability to work individually and as a team member. Demonstrate practical problem-solving skills, independence of thought and initiative.
5. Proven ability to communicate complex information effectively in oral and written formats.
6. Proven ability to build relationships/ develop internal and external networks.
7. Ability to assess and organise resources.

DESIRABLE CRITERIA:

1. Electrical and Electronic Engineering qualifications, Embedded Systems Engineering qualifications, RF/ microwave qualifications and certifications.
2. Proven experience in leading complex research programmes from idea conception to successful implementation.
3. Experience in research grant preparation and application to the UK and International funding bodies.
4. Experience in contributing to research projects with benefits to the community.