JOB TITLE: RF/Digital SDR Integration Engineer (KTP Associate)

SCHOOL / SECTION: School of Engineering & Physical Sciences - Institute of Sensors, Signal and Systems

Mode: Full time.
Duration: 24 months.
Location: Edinburgh, UK (Office-based role at Heriot-Watt University campus)
Salary: Up to £41,000 per annum (Grade 6 – 7).

Applicant Information

We are looking for an ambitious and motivated RF/digital engineer to join a collaborative Knowledge Transfer Partnership (KTP) between PNTaaS Ltd and Heriot-Watt University.

The role focuses on the development of advanced RF and digital Software Defined Radio (SDR) solutions for satellite signals of opportunity (SoOP) based Position, Navigation, and Timing (PNT) systems, particularly for GNSS denied environments. The successful candidate will play a key role in bridging cutting-edge academic research with real-world industrial applications.

This is a primarily office-based position, requiring regular on-site presence to support hands-on antenna, RF and digital development, laboratory testing, and close collaboration with academic and industry teams. This is a fixed-term appointment for 24 months. Subject to satisfactory performance, there may be an opportunity for a permanent position with PNTaaS Ltd at the end of the project.

Job Description

We are seeking candidates with a record that will demonstrate their capability to effectively deliver the required research activities.

You will have a practical knowledge and experience in the area of RF and digital subsystems for satellite communications. You will perform microwave device and subsystem design, including Antennas, RF PCB design and SDR FPGA development. You will have a good understanding of the challenges emerging in the hardware implementation involving passive and active RF devices. The project will involve integration of equipment and subsystems towards wireless and satellite communication systems. You will be expected to have a strong practical understanding of electronic systems.

This opportunity therefore relates to high quality, self-motivated individuals with the ability to work and actively participate in developing advanced research in software defined radio and C, Ku and Ka-band antenna engineering.

We encourage applications from early-career graduates if they can demonstrate clear interest and aptitude for this field. The successful candidate will receive structured training and mentoring, as a part of the KTP, to develop expertise in areas where they may have limited prior experience.

For an informal discussion regarding this position, please contact Professor George Goussetis/Dr. Jayakrishnan Purushothama. Tel: 0131 451 3055, Email: G.Goussetis@hw.ac.uk, J.M.Purushothama@hw.ac.uk

For more information, please visit: https://microwaves.site.hw.ac.uk/

Key Duties and Responsibilities

- Hardware and firmware development for integrated RF front-end solutions for Ku, Ka, and C band applications.
- RF PCB design, development and validation.
- Present technical work at internal/external meetings and external conferences.
- Stay current with emerging technologies in RF, satellite communication and PNT systems.
- Take a leading role in project management and reporting; resource planning and budgeting; and stakeholder engagement and collaboration.
- Ensure alignment between academic innovation and industrial requirements.
- Contribute to broader activities across both organisations, including professional development initiatives, as appropriate.

Please note that this job description is not exhaustive, and the role holder may be required to undertake other relevant duties commensurate with the grading/requirement of the post. Activities may be subject to amendment over time as the role develops and/or priorities and requirements evolve.

Contractual Information

Job Title: RF Front-End Integration Engineer (KTP Associate) **School/Section:** EPS / ISSS **Reporting to**: Dr. Jayakrishnan Purushothama **Duration of Post:** 24 months **Working Hours:** as required to fulfil the role **Disclosure Scotland Requirement: N/A**	**Salary:** Up to £41,000 per annum (Grade 6 – 7). **Pension Scheme:** USS **Annual leave:** 33 days (pro rata) plus Building Closed Days **Sickness benefits:** up to 6 months full pay, six months half **Start Date:** 1 July 2026

Person Specification

This section details the attributes e.g. skills, knowledge/qualifications and competencies which are required in order to undertake the full remit of the role.

Attributes	Essential	Desirable	Means of Assessment
Education & Qualifications (*technical, professional, academic qualifications and training required)*	BEng/MEng in electronics.	MSc/MEng./MS or PhD in electronics or related subject	Certificates
Experience	Good understanding of the processes and	Understanding of the PNT industry.	Application form and interview

	challenges associated with RF and Microwave hardware implementation. Practical experience of applying the specialist skills and techniques required for the role.	Experience related to RF & Microwave Engineering, Wireless Communications, RF circuit design, Antenna design. Familiarity with RF modelling and circuit design tools such as CST Microwave Studio, Keysight ADS, and Matlab. Familiarity with embedded firmware development tools, and programming languages including C/C++, Python. Experience in operating RF measurement and characterisation equipment such as vector network analysers (VNAs), Spectrum/Signal Analysers, RF Signal generators, and similar. Experience in the development of RF Printed Circuit Boards. Familiarity with PCB design software like Altium Designer, KiCad, or similar. Experience with satellite communication subsystems. Experience of collaborative research or working in a team.	

		Experience working in industry is desirable, specifically within the electronic engineering sector.	
Competencies, Skills& Knowledge (*e.g. effective communication skills, initiative, flexibility, leadership etc*)	Effective communication, report preparation, time management to meet deadlines. Flexibility to travel for meetings.		Interview
Other Attributes/Abilities (if applicable)	Must be prepared to work as part of a team. Ability to contribute to method improvement where required.		Interview

Essential Criteria – these are attributes without which a candidate would not be able to undertake the full remit of the role. Applicants who do not clearly demonstrate in their application that they possess the essential requirements will normally be eliminated at the short-listing stage.

Desirable Criteria – these are attributes which would be useful for the candidate to hold. When short listing, these criteria will be considered when more than one applicant meets the essential criteria.

Application Process

The application process is online and the link for the same will be open in due course.

For an informal discussion regarding this position, please contact Professor George Goussetis/Dr. Jayakrishnan Purushothama, with your CV and motivation letters. Please mention "PNTAAS KTP May 2026" as the subject line of this email. Email: G.Goussetis@hw.ac.uk, J.M.Purushothama@hw.ac.uk

If you have not been contacted by 4 weeks after the official closing date once the application link opens, please consider your application unsuccessful.

The University is committed to equality of opportunity.

About the company

PNTaaS Ltd was incorporated in 2025 and is located within incubator space at Heriot-Watt Universities Edinburgh campus. PNTaaS are a wholly owned subsidiary of NAVSYS Corp. an internationally recognised business based in the US founded in 1986 and operates as the vanguard of players focusing on next-generation technologies to advance state-of-the-art positioning, navigation, and timing (PNT) for UAVs (unmanned aerial vehicles) and SATCOM providers. NAVSYS provides specialised products and services to military and commercial customers needing navigation services in GPS-denied areas. Company website: https://www.pntaas.com/

Heriot-Watt University and Values

With a history dating back to 1821, Heriot-Watt University has established a reputation for world-class teaching and practical, leading-edge research, which has made us one of the top UK universities for business and industry.

We're a vibrant, forward-looking university, well known for the quality of our degrees with employers actively seeking out our graduates.

Heriot-Watt is also Scotland's most international university with an unsurpassed international in-country presence. We deliver degree programmes to 11,800 students in 150 countries around the world, have a campus in Dubai and boast the largest international student cohort in Scotland.

At Heriot-Watt we've created an environment that nurtures innovation and leadership - where our researchers, staff and students can realise their potential and develop their ambitions.

We're proud of our collegiate atmosphere and integrated teaching and research approach which has helped to build a community of committed academics and highly motivated students. Our focus on careers delivers results and we've an excellent reputation for graduate employability.

We have campuses in Edinburgh, the Borders, Orkney and Dubai where we aim to provide stimulating, supportive environments conducive to effective learning and research, and where staff and students can excel.

At Heriot-Watt, we have an established set of values that help us to nurture innovation and leadership, and show our commitment to continuous improvement and development in all our activities.

Our values describe our deeply held beliefs and our community spirit. They characterise not only how we are as a higher education institution but also frame how we want to be.

Our values are:

- Valuing and respecting everyone
- Pursuing excellence
- Pride and belonging
- Shaping the future
- Outward looking

As a learning, living and working institution, we use our values as the building blocks of how we go about doing our work and how we conduct ourselves as part of Heriot-Watt University. They represent what binds us together as a University community and help us to become the best at what we do.

It's key that all our staff feel part of our achievements, and our values provide your link to our success.

For full details on our University please view our website, www.hw.ac.uk

Heriot-Watt University is a charity registered in Scotland (*SC000278*).