Earth Observation Data Processing Engineer.

COMPANY: **e2E SERVICES LTD.**
JOB REF: **RES.028**
TYPE OF ROLE: **Permanent**
LOCATION: **Darmstadt, Germany**

Our Company

We have been at the forefront of innovation in the satellite communications industry for two decades, offering to all its stakeholders unrivalled expertise to design, develop and operate state-of-the-art solutions and systems, world-wide. Our portfolio of services and technology know-how covers the entire spectrum of any satellite communication project, from market opportunity sizing and end-user requirements down to ground network development, commissioning, and operations. To both commercial and defence related domains, we also offer unique modular and agile technology to enable a more user-friendly and accessible use of satellite communication resources.

Innovation and ingenuity are the guiding principles of anything we do for our customers. Working with e2E requires a high level of dedication and personal motivation, commitment and a drive to continually seek to improve things but the results our Group has consistently achieved over the years, at personal and team levels, are outstanding and make e2E a great place to work.

Job Description

We are expanding our team and are seeking 7 earth observation data processing engineers based in Darmstadt, Germany working as part of our multi-national project team.

In the context of Satellite Earth Observation data acquisition, processing, monitoring, and control systems in an operational Mission Control Centre environment. You will provide engineering consultancy to design and system engineering / reengineering activities, fully system lifecycle, in the Monitoring Analysis and Reporting Multi Mission Element framework, which consists in a system of offline Ground Segment elements, specifically for the Long Trend Analysis, Quality Monitoring and Reporting aimed to support the operational activities of existing and future programmes. Candidate

areas are programmes such as EUMETSAT Polar System (EPS), Meteosat Second Generation (MSG), Meteosat Second Generation (MTG), EUMETSAT Polar System Second Generation (EPS-SG), and Copernicus Sentinel Missions.

Support the day-to-day operation and maintenance, analysis, design, development, and testing of the facilities which also includes the handling of anomalies, upgrades and configuration changes for these facilities.

Key Responsibilities

- Focal point for integrating individual Facilities into a system context, covering all aspects from early SW development, definition of interfaces, system integration and testing, and end to end testing of the production system.
- Setup and implement maintenance policies and procedures as well as the co-ordination with external providers of maintenance services.
- Support further development of product quality monitoring and calibration and validation activities in Operations and in future Client projects.
- Definition, design, implementation, and maintenance of architectures for data processing ground segments and their components - with special emphasis on product quality control, calibration and validation, production monitoring and reporting.
- Support the operations of existing data processing ground segments, their maintenance and evolution. Including: upgrading software, including implementing, and maintaining new algorithms for product quality control and calibration/validation activities.
- Contribute to the porting of the data processing facilities to Red Hat Enterprise Linux 8 (RHEL 8)
- Perform routine tasks in operational systems under configuration control.
- Setting-up and implementation of maintenance policies and procedures.
- Contribute to the procurement and installation of software, and the co-ordination with external providers of support services.
- Participation in meetings and formal reviews.

Skills, Character and Experience

<u>Essential</u>

- Graduate with a University degree (or equivalent) in a relevant discipline such as computer science, physics, mathematics, or remote sensing, with a minimum of three years' experience in software engineering for operational processing of satellite or meteorological data.
- Relevant experience in preparation of requirements, design, interfaces, and testing documentation for data processing systems considering the systems engineering aspects of data processing management and data provision (experience of data processing for high data rate missions and/or Earth Observation missions is an asset but is not mandatory).

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- Experience in S/W design, S/W development, Web applications programming, operation, maintenance and troubleshooting of large complex real-time data processing systems for Earth Observation missions.
- Competence in object-oriented software design and implementation possibly in the context of satellite instrument data processing systems.
- Ability to write accurate and consistent technical documentation.
- C/C++ programming language experience in a UNIX/LINUX based environment.
- Use of application programming of database systems (e.g., ORACLE, INFORMIX, PostgreSQL and MySQL);
- Competence in the use of scripting languages (e.g., shell scripting), high-level languages (e.g. Python, Java) and correspondent using of their libraries;
- Knowledge of web technologies, programming and mark-up languages (e.g., Apache, CGI, JavaScript, UML);
- Knowledge of XML and related technologies (XPATH, SVG, etc.).
- Competence in the exploitation of modem hardware and operating systems at the application level (e.g., parallel programming (pthreads, MPI, OpenMP)).
- Familiarity with data formats used for meteorological satellite products.
- Design and implementation of MMI using different toolkits and languages.

Desirable

Previous experience and knowledge in any of the following areas will be considered an additional asset:

- Experience with the programming and usage of iDL and Fortran.
- Experience in Web Programming.
- Competence in S/W testing, unit test suite maintenance, automated testing, verification and validation.
- Knowledge of relevant Standards, Quality Assurance and Configuration Management principles and applications.
- Formal software testing, verification and validation of data processing systems and/or product processors (L1 or L2) for satellite data or other meteorological data.
- Radiometric and spectral calibration, use of radiative transfer models, development of complex scientific software for the processing of large amount of data.
- knowledge of the IBM DOORS tool or an equivalent for requirements management.
- experience of validating complex remote sensing data processing systems.
- knowledge of ECSS and CCSDS standards.
- knowledge and/or experience of quality control, instrument calibration and IV&V.

Salary

- Competitive generous salary package

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- Please apply by sending your CV to recruitment@e2egroup.co.uk
- By submitting your CV/application you are consenting to e2E Group using and storing information about you for monitoring purposes relating to your application of future employment. This information will only be used by e2E Group.

  e2E Group is committed to achieving workforce diversity and welcome all applications irrespective of social and cultural background, age gender, disability, sexual orientation or religious belief.

ISO 9001Certified

CYBER ESSENTIALS

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