GOME-2 Level 1 Calibration & Validation Engineer based at EUMETSAT, Darmstadt, Germany

HAMTEC Consulting a provider of quality staff to the aerospace industry.

We are currently seeking having a University degree (or equivalent) in a relevant discipline, with a minimum of 5 years experience in the field of remote sensing product data analysis including at least 2 years of experience of UV/Visible calibration and validation.

Location: Darmstadt, Germany
Start Date: ASAP
Closing date: 14 September 2018

TASKS:

This position will primarily provide support to the calibration and validation of GOME-2 level 1 data products. The main focus of the activity is the calibration and validation of the GOME-2 UV/Visible radiance and polarisation sensitive data, the evaluation of the long-term degradation signatures in GOME-2 data and methods for generation of degradation correction factors, cross-calibration and validation activities both with instruments of a similar class and GOME-2 instruments on Metop-A and Metop-B, and investigation of problems indicated by feedback from level 1 data users. Associated with this activity is the development of prototype software to support the analysis and supporting documentation such as algorithm specifications, test data descriptions and validation reports. The key person will be fully integrated in the Atmospheric Composition Team within the Remote Sensing and Products Division but will also be expected to interface with experts across EUMETSAT as required.

The tasks of the key person will include:

- analysis of in-flight calibration performance of the GOME-2 instruments on MetopA and Metop-B;
- evaluation of the applicability of the on-ground characterisation key data to the inorbit situation of GOME-2 including radiometric and polarisation sensitivity key data including angular dependencies;
- analysis of the long-term degradation signatures on GOME-2, including from all inflight calibration sources, sun and earthshine data;
- evaluation of methods for generation of degradation factors;
• cross-calibration and validation of level 1 radiance and polarisation data both with instruments of a similar class and GOME-2 instruments on Metop-A and Metop-B
• development of software for the purposes of analysing the in-flight calibration performance and long-term degradation performance of the GOME-2 instrument;
• investigation of problems indicated by feedback from level 1 users;
• development of software for cross-calibration and validation activities;
• testing and validation the algorithms and analysis procedures developed;
• provision of support for long-term instrument monitoring and implementation and validation of the any proposed in-orbit corrections within the operational processing environment;
• interfacing with experts across EUMETSAT as needed;
• collaboration with expert groups and the wider scientific community outside EUMETSAT as appropriate;

The tasks of the key person will be carried out mainly at EUMETSAT facilities in Darmstadt, but travel within Europe may be required for certain activities.

Qualifications and Experience

• University degree (or equivalent) in a relevant discipline;
• a minimum of 5 years experience in the field of remote sensing product data analysis including at least 2 years of experience of UV/Visible calibration and validation;

Essential Skills

• remote sensing data analysis using UV/Visible satellite data;
• calibration of level 0 and validation of level 1 satellite data products;
• use of (vector) radiative transfer models;
• the GOME-2 mission and instrument;
• writing concise and comprehensive scientific and technical reports;
• demonstrated skills in a higher programming language;
• working with UNIX and/or Linux operating systems;
• specification, design and coding of complex product processors;
• testing and verification of complex data processing systems;
• C/C++
• Python

Desirable Skills

• the remaining EPS missions and instruments ;
• quality control of satellite data and products;
• operational product processing environments;
• knowledge of scripting languages (e.g. python, Matlab, IDL, bash);
• knowledge of SQL;software build environments and tools (e.g. make, imake, eclipse, insure++);
• source code control system, (e.g. Subversion or CVS).
Please send you CV in English to:
Simon Davidson via recruit@hamtec.co.uk