

Researcher Mobility Grant (RMG)

APPLICATIONS ARE INVITED: Researcher in automatic weather stations testing

ROLE OF THE RMG-RESEARCHER: The RMG-Researcher is required to investigate theoretically and experimentally water vapour diffusion effects in pressure-temperature-humidity (PTU) calibration systems at low temperatures and pressures. The objective of the work is to improve the calibration uncertainty achieved in PTU calibrations for meteorological measuring instruments used in upper air and mountain weather monitoring. On the basis of the foreseen research results critical criteria to obtain certain accuracy level will be defined and advanced procedures for validating the PTU calibration systems will be developed. The results will be applied in extending the operation pressure ranges of calibration systems developed and used during the same project at MIKES. This work complements workpackages 1 and 4 (tasks 1.5 and 3.5) of the related JRP, adding relevant value in the development of test facilities vital for improving the quality of upper air and arctic air observations. The RMG Researcher is expected to gain relevant experience in analysing and validating low temperature humidity measurement and calibration setups. After the research period, he/her will be a subject of knowledge transfer to research groups in metrological and meteorological institutes.

RESEARCHER REQUIREMENTS: The RMG-Researcher must have a previous experience in at least one (more than one preferred) of the following fields:

- Temperature, humidity, pressure measurements and calibrations
- Thermodynamics
- Numerical modelling

PROJECT LOCATION(S): MIKES, Finland. <http://www.mikes.fi/>

DURATION: Between 6 and 12 months duration. Earliest start date is October 2012; with completion before January 2014.

ALLOWANCES: The exact allowances for your situation can be found by using the "EMRP Researcher Grant Calculator" spreadsheet available at www.emrponline.eu/edocs/grantcalculator.xls

The EMRP Researcher Mobility Grant does not include a salary allowance. There is a fixed rate allowance of 1800 € /month living allowance (with an additional sum for those with a family who relocates with them), a further 500 € every 3 months as a travel allowance, and 200 € / month as a contribution to the Guestworking Organisation's overheads. In addition 1500 € may be claimed every 6 months for attendance at a specific named conference or meeting. Note that some of these allowances are corrected for each country.

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RELATED JRP (each RMG is linked to a Joint Research Project of the EMRP)

PROJECT TITLE: ENV07 – Metrology for pressure, temperature, humidity and airspeed in the atmosphere - METEOMET
EURAMET projects webpage: http://www.euramet.org/index.php?id=emrp_call_2010
JRP webpage: www.meteomet.org

PROJECT DESCRIPTION: This JRP is focused on the traceability of measurements involved in climate changes: surface and upper air measurements of temperature, pressure, humidity, wind speed and direction, solar irradiance and reciprocal influences between measurands. It responds to the needs expressed by several different climate data users and organizations for new stable and traceable measurement standards, protocols, sensors and calibration procedures, uncertainty-evaluation methods, to enhance data reliability and reduce uncertainties in climate models.

The JRP aims to:

- Develop and test of novel instruments as TDLAS hygrometers, microwave quasi-spherical hygrometers, innovative multisensors for free-space non-contact atmospheric measurements, ultrasonic anemometers, novel methods for GPS and Galileo-based measurements, traceability of radiosonde-based measurements
- Develop improved calibration procedures and facilities for laboratory and in situ simultaneous calibration of temperature, humidity and pressure sensors in weather stations also for special purposes, under extreme environmental conditions
- Assess historical temperature measurement data with respect to the used techniques (procedures and instruments) and evaluation of the consistency of contemporary and historical data

The RMG-Researcher may have the opportunity to work with and/or produce joint papers with the following world-leading Researchers: Ingvild Antonsen, Stephanie Bell, Robert Benyon, Norbert Böse, Vahit Ciftci, Dolores del Campo, Miruna Dobre, Janko Drnovšek, Krzysztof Flakiewicz, Eric Georgin, Martti Heinonen, Magnus Holmsten, Jan Johansson, Krzysztof Migala, Claus Melvad, Andrea Merlone, Jonathan Merrison, Juraj Ranostaj, Fernando Sparasci, Radek Strnad, Anna Szmyrka-Grzebyk

APPLICATION

ADVERT REFERENCE: ENV07-RMG03

CLOSING DATE: The closing date is 23:59 CET on Friday 6th May 2011

INTERVIEW DATES: If interviews are required they will take place between 27th May and 13th June 2011

APPLICATION: All applications must be submitted via www.emrponline.eu/apply.html

An application consists of a Research Schedule (a description of the work to be undertaken), CV, cover letter, and excel datasheet.

ELIGIBILITY: Full eligibility criteria are given here: www.emrponline.eu/edocs/eligibility.pdf Typically; RMGs are open to researchers with any duration of experience based in EU Member States and FP7 associated countries; Guestworking Organisation must be an NMI, DI or REG Home Organisation participating in the JRP, and located transnationally to the RMG-Researcher's employing organisation.

THE AIM OF EMRP RESEARCHER MOBILITY GRANT

“To develop the capacity of individuals in Metrology”

The EMRP provides Researcher Excellence Grants (RMGs) to increase the capability of the European metrology researcher community, by supporting countries in building and furthering their capacity in Metrology.

* From: *Decision No 912/2009/EC*, Official Journal of the European Union, 30 September 2009, L257, p12
available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:257:0012:0025:EN:PDF> +