

## **Multi parametric monitoring EDAS set-up in the Island of Lanzarote (Canarian Archipelago)**

**M.van Ruymbeke, R.Vieira, Ping Zhu, G.Tuts, J.Arnoso & E.Velez**

The EDAS concept (European Data Acquisition for Scientists) is the answer to the question of instrumentation dedicated to geodynamics monitoring. EDAS is including validation and calibration procedures. One of the specificity consists to establish the tidal signature to improve the understanding of multi parameters processes.

We apply EDAS for instruments prototyping and geophysical monitoring purposes in the three Geodynamical Laboratories in collaboration with Pr Ricardo Vieira (Instituto de Astronomía y Geodesia (CSIC-UCM) who initiate the project with the effective support of Casa de los Volcanes belong the Cabildo Insular of Lanzarote.

A series of instruments are monitoring various parameters at a one minute sampling rate:

- in the Cueva de los Verdes (10 channels)
- in the Jameos del Agua (12 channels)
- in the Timanfaya reserve (20 channels).

A data bank with series of more than fifteen years records is permanently completed.

The EDAS sensors developed at the ROB allows by a dedicated stacking method named HiCum for Histograms-CUMulation, to detect modulations in air pressure, temperature, strain, ... on earth-tides periodicities like the solar S1, S2 and lunar M2, .