# Pi-EEWS: a low cost prototype for on-site earthquake early warning system

Antonio Pazos (1), Angel Vera (2), Arturo Morgado (2), Carlos Rioja (2), Jose Martin Davila (1), and Roberto Cabieces (1)

(1) Royal Spanish Navy Observatory, Geophysical Department, San Fernando, Cadiz, Spain (pazos@roa.es), (2) Escuela Sueprior de Ingeniería, Universidad de Cadiz, Campus de Puerto Real, Spain (angeldelaveracruz@gmail.com))

The Royal Spanish Navy Observatory (ROA), with the participation of the Cadiz University (UCA), have been developed the ALERTES-SC3 EEWS (regional approach) based on the SeisComP3 software package. This development has been done in the frame of the Spanish ALERT-ES (2011-2013) and ALERTES-RIM (2014-2016) projects, and now a days it is being tested in real time for south Iberia. Additionally, the ALERTES-SC3 system integrates an on-site EEWS software, developed by ROA-UCA, which is running for testing in real time in some seismic broad band stations of the WM network.

Regional EEWS are not able to provide alerts in the area closet to the epicentre (blind zone), so a dense on-site EEWS is necessary. As it was mentioned, ALERTES-SC3 inludes the on-site software running on several WM stations but a more dense on-site stations are necessary to cover the blind zones.

In order to densify this areas, inside of the "blind zones", a low cost on-site prototype "Pi-EEWS", based on a Raspberry Pi card and low cost acelerometers. In this work the main design ideas, the components and its capabilities will be shown.