

Educational Activities IMEIO- UPM

Title: FEM and volcano Geodesy: a new focus on volcano deformation interpretations

Responsible of the activity: María Charco, Pedro Galán del Sastre

Lecturers: María Charco, Pedro Galán del Sastre

Total number of hours: 15 h

Location: E.T.S.Ingenieros Industriales (UPM)

Dates: January-February 2018

Abstract:

- Introduction and Motivation (M. Charco): 3 h.
 - Volcano Geodesy Definition
 - Application of Geodetic Techniques for volcano deformation monitoring.
- Deformation modeling (M. Charco): 4 h.
 - Boundary Value Problem of volcano deformation
 - Quantitative interpretation of volcano deformation: The inverse problem in volcano geodesy for the characterization of deformation sources.
- Finite Element Method (FEM): Some Numerical simulations of volcano deformation (P. Galán del Sastre): 4 h.
- Application: How does a volcano change its shape? (P. Galán del Sastre): 4 h.

Would you accept that the course could be given by videoconference restricted to some doctoral students who could not attend in person? Yes, but attending in person is highly recommended