

Educational Activities IMEIO- UPM

Title: Transportation engineering problems and computational mathematics
Responsible of the activity: Eugenio Roanes Lozano
Lecturers: Eugenio Roanes Lozano
Total number of hours: 10 (five 2 hours sessions)
Location: Algebra Dept., School of Mathematics
Dates: 1 st semester (Tue / Wed / Thu: day and time to be negotiated with students)

Abstract:

A collection of selected (deterministic) problems in transportation engineering will be introduced and studied in-depth. These problems have a strong computational and mathematical component.

Simplified versions of some of these problems will be implemented by the students. The course is self-contained and begins with a gentle introduction to the CAS Maple.

The teacher has been involved in research in AI and in applications of computational mathematics to transportation engineering (within the frame of research projects granted by the Spanish Government) and has also developed software for AENA (Spanish Airport Authority) and the Spanish Railway Foundation. Several research articles about transportation engineering, based on these works, have been published in different journals.

Would you accept that the course could be given by videoconference restricted to some doctoral students who could not attend in person?

Yes, as far as there is a technician that takes care of the equipment and technical details.