

SEMINAR ANNOUNCEMENT

June 4, 2025 – h 11:00 – Aula R, Complexo Engenharia Donghi

Invited lecture

Prof. Jose Campos Matos
University of Minho



Title

Novel approaches towards a sustainable management of existing bridges

Abstract

The Seminar “Novel approaches towards a sustainable management of existing bridges” translates an exhaustive work the author is being developing, jointly with his team, from many years up to now. The author since very early years start his research on the topics of uncertainty quantification, reliability analysis and probabilistic based assessment tools for existing bridges. Afterwards the author coordinated from University of Minho side a project which aim to develop a management system for highway assets (SustIMS). Within this project the author introduced concepts such as predictive analytics and decision supporting tools. Within this European Action COST TU1406, coordinated by author, it was discussed topics such as performance indicators and key performance indicators (KPI), and its quantification through a risk-based approach, for the efficient management of such bridges. Afterwards, the author coordinated from University of Minho side, a project dealing with management of road and rail infrastructures for natural and man-made extreme events (SafeWay), where robustness plays important role. Within this project it was implemented previous concepts of quality control, predictive analytics, data fusion, among others. Particularly, how resilience should be introduced within a holistic way, and combining it with reliability and risk analysis.

