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RESILIENCE OF INFRASTRUCTURES TO CLIMATE CHANGE

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The assessment of infrastructures functionality during natural events is fundamental in the evaluation of emergency response and socio-economic recovery procedures. In this regard, resilience may be considered a key parameter for decision-making procedures such as post-hazard event mitigations and recovery investments. However, climate change has been increasing the effects of natural disasters and the assessment of potential risks are fundamental in the design of infrastructures. With this aim, resilience has been proved an appropriate approach to assess the recovery to various levels of pre-event functionality. A case study is considered in order to show the application of the proposed methodology to a real infrastructure. The principal outcome consists of calculating resilience as a readable finding that may have many applications for a wide range of stakeholders, such as infrastructure owners, transportation authorities and public administrators who can apply the outcomes in the assessment of the best recovery techniques and solutions.

Biography

Prof. Davide Forcellini completed his master's degree from the University of Bologna in Civil and Environmental Engineering in 2006. His master's thesis, titled "Study of Soil Structure Interaction" was developed at the University of California, San Diego. Since then, he has continued collaborations with UC San Diego and Berkeley. He worked as a bridge engineer between 2007 and 2009. Since 2009, he has been teaching at University of San Marino. He completed his Ph.D. at the University of San Marino where he is teaching. He is teaching at University of Azuay, Ecuador and collaborating with University of Auckland, New Zealand.