



Nicholas Kyriakides

Lecturer, Cyprus University of Technology

Dr Nicholas Kyriakides is a Lecturer at the Civil Engineering and Geomatics Department of the Cyprus University of Technology (was appointed as a full-time Post-Doctoral Researcher at the University since 2008). He holds a PhD in the field of “Earthquake Risk Assessment of RC buildings” from the Department of Civil and Structural Engineering, University of Sheffield with an Overseas Student Award Scholarship and a Scholarship from the A. G. Leventis Foundation in Cyprus. He also holds a 1st class BEng degree with Honours from the University of Nottingham. His research interests include the assessment of existing RC buildings under seismic loading and the enhancement in response after conventional and innovative retrofitting. His main scope of research is the probabilistic vulnerability assessment of structures subjected to seismic loadings through sophisticated analysis with numerical tools to simulate the propagation of brittle failure modes. In addition, and as part of his doctoral work, he has examined the earthquake hazard in Cyprus based on recorded data that he had gathered from local authorities, and has derived a peak ground acceleration attenuation law based on local characteristics concerning both the recorded PGA’s and the soil conditions. He has participated in both European and locally funded projects concerning the seismic risk assessment of structures in Cyprus. Indicatively, he participated in 2 FP7 projects, (1) Seismic Retrofitting of RC frames with RC infilling (SERFIN), (2) Seismic Strengthening of Deficient RC Buildings Using Ductile Post - Tensioned Metal Strips, and two projects funded by the local Research Promotion Foundation, (1) Seismic Safety and Vulnerability Mitigation of School Buildings (160.000 euros), and (2) Seismic Vulnerability and Strengthening of Existing Privately Owned Buildings (140.000 euros). Based on the findings from these projects he has derived the seismic risk assessment map for Cyprus for various seismic hazard scenarios using a newly derived vulnerability assessment framework that can be applied to conventional, cultural and critical structures and has been cited in many publications as innovative. He has also coordinated a research project funded by the local Research Promotion Foundation under the Framework Programme for Research, Technological development and Innovation 2009-2010 for young researchers. The topic of the project was

the Retrofitting of RC Buildings with RC infills, (2013 – 2014) with a budget of 29 952 Euro for CUT. The project was a bilateral collaboration with Ecole Centrale de Nantes (FR) and in particular, Prof. Panagiotis Kotronis and it was ranked 1st in its category. The main areas that were covered by the above projects was the damage propagation and response of existing Reinforced Concrete (RC) buildings subjected to seismic loading and other dynamic actions before and after retrofitting, and the simulation of the experimental results using numerical FE analysis. Life-cycle cost analysis was also performed to obtain the optimum retrofit level. Recently he has worked on the correlation of damage condition mapped in underground sepulchral monuments with historical seismic activity in the area using non-linear FE analysis on a simulation 3D model of a case study tomb (Tomb 4 in Tombs of the King). Dr Kyriakides was actively involved in 10 funded research projects one of which he was coordinating, he has 6 pending research funding proposals submitted at the local Research Promotion Foundation, he is a Member of sub-committee CYS TC 18-Eurocodes for EC8, Member of the committee for the Protection of Critical Energy Infrastructure (PCEI) of the European Defence Agency and a candidate for the position of the moderator for the corresponding Consultation forum, reviewer in many journals (Engineering Structures, Earthquakes and Structures, Natural Hazards, The Open Construction and Building Technology Journal, Arabian Journal for Science and Engineering etc.) and has given a number of invited lectures to governmental authorities (Civil Defence authority, Ministries of Defence and Interior, International Council on Monuments and Sites etc.). Ever since he was appointed as a researcher at CUT he coordinated the setting up and acquiring of equipment for the departmental Large structures laboratory and have used the lab for teaching purposes as well as research and consultation. He has also contributed to the Development and establishment of the Department of Civil Engineering and Geomatics and in particular of the Departmental strategic plan Course curriculum development and updating. He has published more than 35 articles (Google Scholar) and has approximately 200 citations. A detailed CV of the project coordinator can be found in the Appendix.