

CURRICULUM VITAE

EMMANOUIL N. ROVITHIS

DR CIVIL ENGINEER

ASSISTANT PROFESSOR, SECTOR OF GEOTECHNICAL ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

DEMOCRITUS UNIVERSITY OF THRACE

JANUARY 2023

TABLE OF CONTENTS

1. <u>PERSONAL INFORMATION</u>	3
2. <u>RESEARCH INTERESTS</u>	4
3. <u>EDUCATION AND EMPLOYMENT</u>	4
4. <u>DISTINCTIONS AND RECOGNITION OF SCIENTIFIC WORK</u>	5
5. <u>REVIEW ASSIGNMENTS AND CONFERENCE COMMITTEES' MEMBERSHIPS</u>	6
5.1 Reviewer of International Journals (more than 60 papers reviews)	6
5.2 Memberships in Organizing/Scientific Committees of National and International Conferences and workshops.	7
6. <u>ADMINISTRATIVE DUTIES AND PROFESSIONAL EXPERIENCE</u>	8
6.1 Professional and administrative affiliations	8
6.2 Professional Projects	8
7. <u>PARTICIPATION IN FUNDED RESEARCH PROJECTS</u>	9
7.1 As Scientific Responsible (SR) or Principal Investigator (PI)	9
7.2 As a core member of the research team	10
8. <u>TEACHING ASSIGNMENTS AND ACADEMIC EXPERIENCE</u>	11
9. <u>COMPUTER SKILLS & CODE DEVELOPMENT</u>	12
10. <u>LABORATORY AND FIELD-TESTING EXPERIENCE</u>	13
11. <u>NATIONAL AND INTERNATIONAL COLLABORATIONS</u>	14
12. <u>INVITED LECTURES – CONFERENCE PRESENTATIONS – SEMINARS</u>	15
12.1 Invited lectures	15
12.2 Presentations in Conferences and Workshops (selected list)	16
12.3 Others Scientific seminars attended	18
13. <u>SCIENTIFIC PUBLICATIONS</u>	19
13.1 Dissertations	19
13.2 Book Chapters	19
13.3 Publications in Peer-Reviewed International Journals	19
13.4 Publications in International Conferences Proceedings	22
13.5 Publications in National Conferences Proceedings	25
13.6 Extended Abstracts	27
13.7 Other Publications (Research reports, field reconnaissance reports, Web articles etc)	27

**Curriculum Vitae
of
Emmanouil Rovithis, M.Sc., Ph.D.**

Assistant Professor, Sector of Geotechnical Engineering
Department of Civil Engineering – Democritus University of Thrace

1. PERSONAL INFORMATION

<i>Full Name</i>	Emmanouil Rovithis
<i>Gender</i>	Male
<i>Date of Birth</i>	13 August 1978
<i>Place of Birth</i>	Chania, Crete, Greece
<i>Marital status</i>	Married (1 child)
<i>Military service</i>	Fulfilled (05/2008-05/2009)
<i>Languages</i>	Greek (native) English (fluent)
<i>Office address</i>	Department of Civil Engineering, Building B', University Campus Kimeria, 67100, Xsanthi
<i>Office phone:</i>	25410 79646
<i>Cell phone:</i>	(+30) 6973 989376
<i>E-mail</i>	erovithis@civil.duth.gr
<i>Personal Links</i>	ResearchGate , ORCID , Google Scholar , Scopus , Loop

2. RESEARCH INTERESTS

My research interests refer mainly to the scientific areas of soil mechanics, soil dynamics, geotechnical engineering, geotechnical earthquake engineering and soil-structure interaction. More specifically:

- Soil-foundation-structure interaction under dynamics or seismic loads by means of experimental, analytical, and numerical methods and investigation of interaction effects on the dynamic response of structures, critical infrastructures, and monuments.
- Static and dynamic analysis and design of foundations with emphasis on deep foundations (piles, caissons).
- Wave propagation in homogeneous and inhomogeneous soil media
- Soil response analysis under dynamic and seismic loading.
- Instrumentation and monitoring of the dynamic/seismic response of soil-structure systems in the field and laboratory; data acquisition, processing and analysis of experimental data and measurements.
- Numerical and analytical investigation of kinematic soil-foundation interaction, dynamic impedances of foundations and soil improvements effects on structural response.

3. EDUCATION AND EMPLOYMENT

Democritus University of Thrace
Department of Civil Engineering
Sector of Geotechnical Engineering

Assistant Professor

01/2023 – present

University of Campania “Luigi Vanvitelli”, Aversa, Italy
Department of Civil Engineering
Sector of Geotechnical Engineering

Visiting Researcher

03/2021 – 06/2021

Earthquake Planning and Protection Organization (E.P.P.O.)
Research Unit ITSAK

Researcher

2011-2022

Institute of Engineering Seismology and Earthquake Engineering, Thessaloniki, Greece
Soil Dynamics Division

Researcher

2010-2011

Aristotle University of Thessaloniki, Greece
Department of Civil Engineering
Laboratory of Soil Mechanics, Foundations & Geotechnical Earthquake Engineering, Research Unit of Geotechnical Earthquake Engineering and Soil Dynamics,
Post-doctoral research associate **2009-2010**

Aristotle University of Thessaloniki, Greece
Department of Civil Engineering
Laboratory of Soil Mechanics, Foundations & Geotechnical Earthquake Engineering, Research Unit of Geotechnical Earthquake Engineering and Soil Dynamics,
Doctorate in Earthquake Geotechnical Engineering **2003-2008**
Ph.D Thesis: "Dynamic Analysis of Coupled Soil-Pile-Structure Systems"
Research Advisor: Professor Kyriazis Pitilakis
Grade: Excellent (10/10)

Aristotle University of Thessaloniki, Greece
Department of Civil Engineering
M.Sc. in Earthquake Engineering **2002-2003**
M.Sc. 1-year program: "ASTE – Antiseismic (i.e. Earthquake Resistant) Design of Structures and civil works"
Grade: Excellent (8.57/10)
M.Sc. Thesis: "Effect of foundation soil interventions on the dynamic response of R/C buildings"
Supervisor: Professor Kyriazis Pitilakis
Grade: 10/10

Aristotle University of Thessaloniki, Greece
Department of Civil Engineering
MEng in Civil/Structural Engineering **1997-2002**
Grade: Very Good (7.60/10)
Diploma Thesis: "Implementation of Greek Seismic Code by means of ADINA FE code"
Supervisors: Prof. I. Avramidis and Assoc. Prof. A. Athanatopoulou
Grade: 10/10

4. DISTINCTIONS AND RECOGNITION OF SCIENTIFIC WORK

- Visiting Researcher scholarship from University of Campania “Luigi Vanvitelli” in Aversa, Italy for teaching and research activities in the Sector of Geotechnical Engineering at the Department of Civil Engineering.
- Ph.D. Scholarship in Earthquake Geotechnical Engineering by the National Fellowship Foundation (IKY): 2004-2007 (after written examinations)
- Nominated participant representing Greece for the 21th EYGEC European Young Geotechnical Engineers Conference, 4-7 September 2011, Rotterdam, The Netherlands.
- Technical Secretary: XV European Conference of Soil Mechanics: “Geotechnics of hard soils-weak rocks” (Session 5 “Excavations and Tunneling”), Athens, Greece, 12-15 September 2010
- Chair of the Special Session "Monitoring of Natural Hazards in urban sites: New advances and applications", 1st International Geomatics Application Conference (GEOMAPPLICA), 8-10 September 2014, Skiathos Island, Greece.
- Organizer of the Minisymposium “Instrumentation of structures and SSI systems under dynamic excitations”, 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering - COMPDYN2017, 15-17 June 2017, Rhodes Island, Greece.
- Chair of the Special Session “Soil-Foundation-Structure Interaction”, 16th European Conference on Earthquake Engineering (16ECEE), 18-21 June 2018, Thessaloniki, Greece.
- Organizer of the Minisymposium “Dynamic Soil-Structure Interaction: Recent advances and challenges”, 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering - COMPDYN2019, 24-26 June 2019, Crete, Greece.
- More than 30 invited lectures and oral presentations in International and National Conferences and Workshops/Seminars.
- Reviewer in 23 International Journals (Outstanding Reviewer Status achieved in 2017 for the International Journals *Soil Dynamics and Earthquake Engineering* and *Journal of Rock Mechanics and Geotechnical Engineering*).
- More than 600 true citations (excluding self-citations and citations from co-authors) in Referred Journals, Conferences’ Proceedings, Dissertations and Reports (Google Scholar h-index: 14, Scopus h-index:13)

5. REVIEW ASSIGNMENTS AND CONFERENCE COMMITTEES’ MEMBERSHIPS

5.1 Reviewer of International Journals (more than 60 papers reviews)

- Acta Geotechnica
- Earthquake Engineering and Structural Dynamics
- Frontiers in Earthquake Engineering (Review Editor)
- Bulletin of Earthquake Engineering
- Computers and Structures
- Earthquake Engineering and Engineering Vibration
- Engineering Structures
- European Journal of Environmental and Civil Engineering
- Geomechanics and Engineering, An international Journal

- Geosciences
- Géotechnique
- Italian Geotechnical Journal
- Journal of Civil Engineering and Management
- Journal of Geotechnical and Geoenvironmental Engineering, ASCE
- Journal of Structural Engineering, ASCE
- Journal of Rock Mechanics and Geotechnical Engineering (*Outstanding Reviewer status από το 2017*)
- Natural Hazards
- Natural Hazards and Earth System Sciences
- Soil Dynamics and Earthquake Engineering (*Outstanding Reviewer status από το 2017*)
- Soils and Foundations
- Structural Engineering and Mechanics, An international Journal
- Structural Engineering International (IABSE)
- International Journal for Numerical and Analytical Methods in Geomechanics

5.2 Memberships in Organizing/Scientific Committees of National and International Conferences and workshops.

- Co-organizer of the Minisymposium (MS38) “Dynamic Soil-Foundation-Structure Interaction: Developments and emerging issues”, 8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2021), Athens, 28-30 June 2021.
- Co-moderator of the round table discussion on recent developments in soil-structure interaction under dynamic loads, 8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2021), Athens, 28-30 June 2021.
- Member of the organizing committee of the 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN2019, Crete, Greece, 24-26 June 2019.
- Member of the organizing committee of the 16th European Conference on Earthquake Engineering, 16ECEE, Thessaloniki, 18-21 June 2018.
- Member of the organizing committee of the workshop «Contribution of ITSAK in the seismic codes and resilience of Greece», Technical Chamber of Greece – Section of Central Macedonia, Thessaloniki, 30 May 2018.
- Member of the organizing committee of the 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN2017, 15-17 June 2017, Rhodes Island, Greece.
- Co-organizer of open seminars in the framework of the research project *INDES-MUSA: Innovative multi-sensor network for deformation and seismic monitoring of urban subsidence-prone areas*, November 2015, Athens, Greece.

- Co-organizer of the final workshop of the research project *INDES-MUSA: Innovative multi-sensor network for deformation and seismic monitoring of urban subsidence-prone areas*, September 2015, Thessaloniki, Greece.
- Member of the organizing committee of the 1st International Geomatics Application Conference, GEOMAPPLICA, Skiathos, 8-10 September 2014.
- Organizer of the final workshop of the research project *DRESBUS-II: Investigation of the seismic behavior of shallow rectangular underground structures in soft soils using centrifuge experiments*, February 2013, Thessaloniki, Greece.
- Member of the scientific committee of the 8th International Conference on Structural Dynamics, EURODDYN2011, Leuven, Belgium, 4-6 July 2011.
- Member of the organizing committee of the 4th International Conference on Earthquake and Geotechnical Engineering (4ICEGE), Thessaloniki, Greece, 25–28 June 2007.

6. ADMINISTRATIVE DUTIES AND PROFESSIONAL EXPERIENCE

6.1 Professional and administrative affiliations

- Member, Technical Chamber of Greece
- Member, Hellenic Society of Earthquake Engineering (HSEE-ETAM)
- Member, Hellenic Society of Soil Mechanics and Geotechnical Engineering (HSSMGE)
- Member, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE)
- Member, International Society of Rock Mechanics (ISRM)
- Member, Scientific Committee for the Seismic Resilience of Bridges (Earthquake Planning and Protection Organization)
- Chair, Research Staff Committee of I.T.S.A.K. (2018-2019)

6.2 Professional Projects

- ***Vellas monumental complex of structures, Ioannina, Greece (2018-2019)***

Member of the analysis and design team for the definitions of the seismic actions imposed by the M5.5 earthquake occurred on October 15, 2016 in the city of Ioannina. Geotechnical site characterization and investigation of topography effects on the seismic response of the monumental complex of structures in Vellas monastery.

- ***Debosset bridge, Greece (2003-2006)***

Core member of the analysis and design team for the assessment of static and seismic performance and the rehabilitation of the historical stone bridge including investigation of: (a) local site effects on seismic motion (b) soil-structure interaction between the massive stone bridge and the deformable foundation soil and (c) seismic performance upgrade by novel intervention techniques combining foundation soil improvement and bridge strengthening.

- ***Venizelou Metro Station, Greece (2007)***

Participation in the analysis team for the study of the underground structure – soil interaction by means of simple Winkler models (K. Pitilakis and associates).

7. PARTICIPATION IN FUNDED RESEARCH PROJECTS

7.1 As Scientific Responsible (SR) or Principal Investigator (PI)

RESPOND: Real Scale experimental assessment of pile group dynamic impedance

Transnational Access Action of the research project ERIES

Coordinator: University of Campania 'Luigi Vanvitelli', Department of Engineering (Professor Raffaele di Laora)

Budget: € 80.000 (approximately)

Funding Body: European Commission – Horizon2020

Start date: 05/2023 (estimated)

Role: PI for DUTH

COSMO: Change of Seismic Motion due to pile-soil kinematic interaction

Transnational Access Action of the research project SERA

Coordinator: University of Napoli "Parthenope", Department of Engineering (Professor Luca De Sanctis)

Budget: € 100.000

Funding Body: European Commission – Horizon2020

Start – end date: 2018 - 2019

Role: PI for ITSAK

Dynamic characteristics of instrumented steel water-storage tanks

Internal project of the Research Committee of IHU

Coordinator: International Hellenic University - IHU (Assoc. Professor E. Kirtas)

Budget: € 1.500

Funding Body: Research Committee of IHU

Start – end date: 2019 – 2020.

Role: PI for ITSAK

INDES-MUSA: Innovative multi-sensor Network for DEformation and Seismic Monitoring of Urban Subsidence-prone Areas.

Greek-Chinese academia-industry collaboration project

Coordinator: Geosystems Hellas S.A.

Budget: € 400.000

Funding Body: Greek General Secretariat for Research and Innovation (G.S.R.I.)

Start – end date: 2013 – 2015.

Role: SR of the Project and PI for ITSAK

DRESBUS II: Investigation of the seismic behavior of shallow rectangular underground structures in soft soils using centrifuge experiments

Transnational Access Action of the research project SERIES

Budget: € 7.000

Funding Body: European Commission – FP7

Start – end date: 2011 - 2012.

Role: SR of the Project and PI for ITSAK

7.2 As a core member of the research team

Assessment of seismic hazard and design loads at the construction site of a 4th generation Science and Technology Park

PI for ITSAK: Dr. B. Margaris

Funding Body: Thessaloniki Innovation & Technology Center (ThessInTeC)

Start – end date: 2021

HELPOS: HELenic Plate Observing System

PI for ITSAK: Dr. Ch. Papaioannou

Funding Body: Greek General Secretariat for Research and Technology (G.S.R.I.), National Strategic Reference Framework (New Programming period 2014-2020)

Start – end date: 2017 – 2020.

Assessment of strong ground motion in urban environments – evaluation of the seismic capacity of selected structures

PI for ITSAK: Dr. V. Lekidis

Funding body: Prefecture of Epirus within the call Interreg V-A "Greece-Italy 2014-2020"

Start – end date: 2016-2018

SciNetNatHazPrev:A Scientific Network for Earthquake, Landslide and Flood Hazard Prevention

PI for ITSAK: Dr. B. Margaris

Funding Body: Black Sea Basin Joint Operational Programme 2007-2013

Start – end date: 2013 – 2015.

SeiVAS: Seismic Vulnerability Assessment of the city of SERRES

PI for ITSAK: Dr. N. Theodoulidis

Funding Body: Greek Ministry of Education and Religious Affairs ("ARCHIMEDES III" research program)

Start – end date: 2013 – 2015.

SERIES: Seismic engineering research infrastructures for European synergies.

PI for Aristotle University of Thessaloniki (AUTH): Prof. K. Ptilakis

Funding Body: European Commission – FP7

Start – end date: 2009 – 2013.

SYNER-G: Systemic seismic vulnerability and risk analysis for buildings, lifeline networks and infrastructures safety gain.

PI for Aristotle University of Thessaloniki (AUTH): Prof. K. Ptilakis

Funding Body: European Commission – FP7

Start – end date of my participation in the project: 09/2010 – 04/2011

SAFELAND: Living with landslide risk in Europe: Assessment, effects of global change, and risk management strategies.

PI for Aristotle University of Thessaloniki (AUTH): Prof. K. Ptilakis

Funding Body: European Commission – FP7

Start – end date of my participation in the project: 01/2010 – 04/2010

LESSLOSS: Risk Mitigation for Earthquakes and Landslides

PI for Aristotle University of Thessaloniki (AUTH): Prof. K. Pitilakis

Funding Body: European Commission – FP6

Start – end date of my participation in the project: 08/2006 – 08/2007

X-SOILS: Foundation of Structures in Seismically Hazardous Soil Conditions

PI for Aristotle University of Thessaloniki (AUTH): Prof. K. Pitilakis

Funding Body: Greek General Secretariat for Research and Technology (G.S.R.T.)

Start – end date: 2004 – 2006.

DEBOSET: Assessment of structural integrity and rehabilitation of Debosset bridge in Argostoli

PI for Aristotle University of Thessaloniki (AUTH): Prof. K. Pitilakis

Funding Body: Greek Ministry of Culture

Start – end date: 2004 – 2006.

NEMISREF: New methods for Mitigation of Seismic Risk of Existing Foundations

PI for Aristotle University of Thessaloniki (AUTH): Prof. K. Pitilakis

Funding Body: European Commission – FP5

Start – end date: 2003 – 2005.

8. TEACHING ASSIGNMENTS AND ACADEMIC EXPERIENCE

Democritus University of Thrace, Department of Civil Engineering, Sector of Geotechnical Engineering

- Teaching assignments for the academic year 2022-2023 (spring semester)

Course: Surface foundations (Co-tutor)

Course: Tunnels and Underground structures (Tutor)

Aristotle University of Thessaloniki, Department of Civil Engineering

- Teaching assistant in the post-graduate course “Earthquake-Resistant Design of Foundations, Retaining Walls and Earth Structures”. M.Sc. program “ASTE – Earthquake Resistant Design of Structures and civil works” (academic years 2010 – 2011, 2011 – 2012, 2012 – 2013, 2013 – 2014, 2014 – 2015).
- Participation in the advisory of four (4) undergraduate and three (3) post-graduate theses in the Laboratory of Soil Mechanics, Foundations & Geotechnical Earthquake Engineering (Supervisor: Prof. K. Pitilakis):

Armeni M. “Finite-element analysis of soil-foundation systems”, Diploma Thesis, Department of Civil Engineering, Aristotle University of Thessaloniki, 2013.

Trevlopoulos K. “Dynamic response of simple structures founded on improved soil”, M.Sc. Thesis, Department of Civil Engineering, Aristotle University of Thessaloniki, 2008.

Palasopoulos K and Tsirantonakis N. “Topography and soil-structure interaction effects on the seismic response of structures”, Diploma Thesis, Department of Civil Engineering, Aristotle University of Thessaloniki, 2008.

Palaskas G. and Zapartas P. "Soil- foundation - structure interaction of a bridge pier founded on improved soil", M.Sc. Thesis, Department of Civil Engineering, Aristotle University of Thessaloniki, 2006.

Senetakis K. "Soil liquefaction analysis in specific case studies", Diploma Thesis, Department of Civil Engineering, Aristotle University of Thessaloniki, 2005.

Trevlopoulos K. "Effect of foundation soil interventions on soil-structure interaction", Diploma Thesis, Department of Civil Engineering, Aristotle University of Thessaloniki, 2005

Fasoula V. "Investigation of potential seismic risk mitigation at structures by implementing foundation subsoil interventions", M.Sc. Thesis, Department of Civil Engineering, Aristotle University of Thessaloniki, 2005

Institute of Engineering Seismology and Earthquake Engineering, EPPO-ITSAK

- Participation in the advisory of three undergraduate theses and contribution in one PhD thesis during a practice period in the premises of ITSAK:

Koskosidi A. Dynamic soil-foundation-structure interaction: Comparison of numerical results with experimental data, Diploma Thesis, 2013 (Supervisor: Asc. Prof. D. Pitilakis)

Mpefas S. Seismic response of soils and classification from typical soil models referring to EC8, Greek instrumented sites. Diploma Thesis, 2013 (Supervisor: Asc. Prof. A. Anastasiadis)

Magafouraki E. Processing of records from Kalochori Accelerometric Network, 2019.

Aristotle University of Thessaloniki, Department of Geology

- Co - tutor of the course "Soil Dynamics" in the Postgraduate Programme "Applied and Environmental Geology" (academic years 2014-2015, 2015–2016, 2016-2017, 2017-2018, 2018-2019, 2019-2020, 2020-2021, 2021-2022)

University of Thessaly, Department of Civil Engineering

- Full teaching assignment of the course "Foundations and Retaining Structures" (undergraduate level), academic year 2014-2015
- Full teaching assignment of the course "Soil-Structure Interaction" in the Postgraduate Programme "Analysis and Design of Energy Infrastructures ", academic year 2016-2017

University of Naples Federico II

- External reviewer of the PhD Thesis "Soil-structure interaction effects on seismic response of masonry buildings", Candidate: Annachiara Piro, University of Naples Federico II, Italy, 2020.

University of Genoa

- External reviewer of the PhD Thesis "Seismic Fragility Curves accounting for site and soil-structure interaction on URM buildings" Candidate: Andrea Brunelli, University of Genoa, Italy.

9. COMPUTER SKILLS & CODE DEVELOPMENT

Engineering Software: **ANSYS, SAP2000, Cyberquake, SHAKE2000, DEEPSOIL, STRATA**

Engineering Design: **AutoCAD**

Programming Languages: **Matlab**

Signal Processing: **Seismosignal, Scream, ART, Compass, REXEL**

- **Development of various Matlab scripts and codes (selected list)**

Dynamic soil-pile interaction analysis

The code computes dynamic Winkler springs and dashpots of single piles based on back-calculated p-y loops. Input data may refer to real earthquake or experimental bending moments recorded on head-loaded or seismically excited piles.

Pile response in inhomogeneous soil

The code computes dynamic stiffness and kinematic response factors of single piles in continuously inhomogeneous soil by means of the Haskell-Thompson technique. Different pile-head and pile-tip conditions are encountered. Shear force, axial force and bending moment's diagrams along the pile may be calculated (under development)

Harmonic response of flexible-base SDOF structures

The script computes the elastodynamic response of flexible-base structures (including SSI effect) under forced harmonic loading imposed at the top of the structure. Both surface footings and single pile foundations may be encountered by means of analytical solutions for dynamic impedances that are available in the literature.

Harmonic response of inhomogeneous soil media

The script computes the elastodynamic response of continuously inhomogeneous soils based on an exact solution of the Bessel type.

10. LABORATORY AND FIELD-TESTING EXPERIENCE

Centrifuge experiments in Schofield Centre facilities, Cambridge, COSMO TA SERA project (2018-2019)

Core member of Users Team of the ongoing Transnational Access (TA) project "*Change Of Seismic Motion due to pile-soil kinematic interaction*" (COSMO) (<https://sera-ta.eucentre.it/index.php/sera-ta-project-25/>) within SERA research project. Cooperation with the University of Napoli 'Parthenope' (Team Leader), the University of Calabria, the University of Campania 'Luigi Vanvitelli' and the University of Liverpool. Participation in the design and compilation of centrifuge tests, referring to single piles and pile groups in soft clay, performed in the Schofield Centre of University of Cambridge (host facility) during March 2019.

Soil-structure interaction field experiments in Euroseistest, research projects SERIES (2010- 2013) and SERA (2017-2020)

Core member of the research team involved in the design, construction, compilation and analysis of large experimental campaigns for field investigation of soil-structure interaction and wave propagation in the experimental facility of EUROSEISTEST within JRA1 action "*Testing Techniques for Soil Structure Interaction (SSI) and Wave Propagation*" of the SERIES project and within ongoing TA projects of the SERA project related to EUROPROTEAS testing facility (<http://euroseisdb.civil.auth.gr/sfsis>). The experimental series include both free- and forced-vibration tests of a real-scale SDOF structure (EUROPROTEAS) with outer dimensions 3x3x5m founded on soft soil. Among the innovative aspects of the field tests is the design and deployment of a particularly dense and integrated recording system consisting of surface and borehole accelerometric stations, seismometers and Shape Acceleration Arrays (SAAR) (60 recording stations in total) to monitor soil and structural response in real soil conditions.

Urban Accelerometric network for Soil-Structure Interaction studies in real-scale urban areas, INDES-MUSA project (2013 – 2015)

Scientific responsible of an urban accelerometric network including seven REFTEK SMA-130 accelerometric stations installed within the complex urban area of Kalochori, west of Thessaloniki in Greece, as part of a multi-sensor network for monitoring seismic motion and ground subsidence within the project INDES-MUSA (www.indes-musa.gr). The network aims at investigating soil-structure interaction and urban effects on seismic motion by pairs of accelerometric stations mounted on top of representative structures (2-storey R/C building of industrial type, 2-storey masonry structure and a water tank) and on urban free-field conditions. A reference station in free-field conditions away from the built environment complements the accelerometric network developed for the INDES-MUSA project. The Kalochori Accelerometric Network has been established with a particular DOI of the recorded data acquired from a large set of earthquakes (see publication J.16) and a dedicated freely available Web-GIS platform (<http://apollo.itsak.gr/apollo-portal/ApolloPro.aspx>) has been designed for data dissemination.

Centrifuge experiments in IFSTTAR facilities, Nantes, DRESBUS II TA project (2012)

Lead User of the Transnational Access project (http://www.series.upatras.gr/DRESBUS_II) “Investigation of the seismic behaviour of shallow rectangular underground structures in soft soils using centrifuge experiments” within SERIES research project. Cooperation with the Institut Français des Sciences et Technologie des Transports, de l’Amménagement et des Réseaux (IFSTTAR) and the Laboratory of Soil Mechanics, Foundations & Geotechnical Earthquake Engineering of Aristotle University of Thessaloniki (AUTH). Participation in the design and the compilation of the centrifuge tests performed in the IFSTAR Centrifuge Facilities during December 2011.

Greek National Accelerometric Network

Participation in the installation of more than 20 permanent strong motion accelerometric stations of Guralp CMG-5TDE type equipped with broadband accelerometers, 24 bits digitizers and GPS, in selected locations in Greece, as part of the Greek National Accelerometric Network (consisting of more than 200 stations in total maintained by EPPO-ITSAK).

Geophysical field surveys

Participation as a member of the scientific team in geophysical surveys (single station ambient noise measurements and microtremor array measurements) during field tests in various sites around Greece (e.g. Serres, Kalochori and Thrace). The above field tests were part of the research actions performed within HELPOS, SeiVAS, INDES-MUSA and SciNetNatHaz projects.

Post-earthquake reconnaissance field campaigns

Participation as a member of ITSAK teams in post-earthquake reconnaissance surveys and deployment of temporary seismic networks in earthquake affected areas (Cephalonia M6.1–26/01/2014 and M6.0–03/02/2014, Ioannina M5.5–15/10/2016, Lesvos M6.3–12/06/2017, Arkalochori M6.0–27/09/2021). Active contribution in the GEER/EERI/ATC team and the publication of the technical report “Earthquake Reconnaissance January 26th/February 3rd 2014 Cephalonia, Greece events”.

11. NATIONAL AND INTERNATIONAL COLLABORATIONS

Aristotle University of Thessaloniki, Department of Civil Engineering [GREECE]

Topics of collaboration: Field experiments and analysis of soil-foundation-structure systems, Soil Dynamics, Seismic design of foundations and geotechnical structures, Rehabilitation of historical monuments

Aristotle University of Thessaloniki, Department of Geology [GREECE]

Topics of collaboration: Soil Dynamics, analysis of real case studies following strong earthquakes

University of Thessaly, Department of Civil Eng. [GREECE]

Topics of collaboration: Design of Foundations and Retaining Structures, Soil-Structure Interaction

International Hellenic University [GREECE]

Topics of collaboration: Various topics on soil-foundation-structure interaction, Dynamic response of tanks, Interpretation of real earthquake data

National Observatory of Athens, Institute of Geodynamics [GREECE]

Topics of collaboration: Urban monitoring Networks for seismic motion and ground deformations

Geosystems Hellas SA [GREECE]

Topics of collaboration: Remote Sensing Applications, Web-GIS applications, data fusion

Satways Satcom & Telematics SA [GREECE]

Topics of collaboration: Installation and maintenance of accelerometric networks

University of Campania 'Luigi Vanvitelli' [ITALY]

Topics of collaboration: Dynamic and seismic response of piles in inhomogeneous media, kinematic soil-pile interaction

University of Napoli 'Parthenope' [ITALY]

Topics of collaboration: Dynamic and seismic response of piles in inhomogeneous media, kinematic soil-pile interaction

University of Calabria [ITALY]

Topics of collaboration: Numerical and analytical solutions for soil-pile-structure interaction analysis

Università degli Studi di Roma Niccolò Cusano [ITALY]

Topics of collaboration: Soil-structure Interaction, kinematic response of embedded foundations

University of Bristol [UK]

Topics of collaboration: Wave propagation, Soil dynamics, piles response in inhomogeneous media

University of Cambridge [UK]

Topics of collaboration: Centrifuge experiments on single piles and pile groups in soft clay, seismic response of surface foundations

University of Leeds [UK]

Topics of collaboration: Numerical and analytical solutions for soil-pile-structure interaction analysis (R)

Institut Français des Sciences et Technologie des Transports, de l'Amménagement et des Réseaux (IFSTTAR), Nantes [FRANCE]

Topics of collaboration: Centrifuge experiments on tunnels in dry and saturated sand (R)

12. INVITED LECTURES – CONFERENCE PRESENTATIONS - SEMINARS

12.1 Invited lectures

- ***Aspects of Soil-Foundation-Structure Interaction (SFSI) identified from seismic records and field data***, Università degli Studi della Campania "Luigi Vanvitelli", 21 April 2021, Aversa, Italy.
- ***Soil-structure interaction based on field measurements: Some perspectives from a densely-instrumented urban site in Greece***, Southeast Symposium of Recent Developments in Geotechnics, Southeast University, 07-09 July 2019, Nanjing, P.R. China.

- **Soil-structure interaction under seismic loading: Field observations and urban-scale applications**, Seminar on Local site effects on ground motion and soil-foundation-structure interaction, HELPOS – Hellenic System for Lithosphere Monitoring research program, Aristotle University of Thessaloniki, 05 December 2018, Thessaloniki, Greece.
- **Evidence of dynamic soil-structure interaction based on theoretical models and full-scale experimental data**, Università degli Studi di Napoli “Parthenope”, Corso di Dottorato in Fenomeni e Rischi Ambientali (FERIA), 08 July 2016, Naples, Italy.
- **Airborne Lidar and accelerometric data processing towards seismic risk assessment: an urban-scale approach including soil-structure interaction effects**, Greece – China – Japan Workshop: Recent advances for analyzing and strengthening resilience of urban areas against earthquake disasters, 28 June 2019, ITSAK, Thessaloniki, Greece.

12.2 Presentations in Conferences and Workshops (selected list)

- **Numerical investigation of soil-structure interaction on the modal response of cylindrical steel water-storage tanks with different H/R ratios**, 5^o National Conference on Earthquake Engineering and Engineering Seismology, 5-7 September 2022, Athens.
- **Geotechnical effects (Samos and Chios Islands)**, Webinar on *Seismological and Engineering Effects of the M 7.0 Samos Island (Aegean Sea) Earthquake* co-organized by HAEE, EEAT, EFT, EERI and GEER, 30 October 2020. (Co-presented with Prof. P. Pelekis)
- **Filtering effect of piles in very soft clays: Analysis of a real case study**, 7th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2019), 24-26 June 2019, Crete, Greece.
- **Dynamic response characteristics of an instrumented steel water tank in Kalochori, N. Greece**, 16th European Conference on Earthquake Engineering, 16ECEE, 18-21 June 2018, Thessaloniki, Greece.
- **Recent developments and perspectives in seismic response of foundations and geostructures**, Workshop «Contribution of ITSAK in the seismic codes and resilience of Greece», Technical Chamber of Greece – Section of Central Macedonia, Thessaloniki, 30 May 2018. (Co-presented with K. Makra)
- **Reduction of seismic loading on structures induced by piles in inhomogeneous soil**, 6th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2017, Rhodes Island, June 2017.
- **Airborne LiDAR and field data combination towards SSI applications at large-scale: The case of the Kalochori urban area in Greece**, 1st ICONHIC Conference, June 2016, Chania, Greece.
- **The accelerometric network of the INDES-MUSA project in the Kalochori area: Configuration, Documentation and preliminary data interpretation**, 14th International Congress of the Geological Society of Greece, May 2016, Thessaloniki, Greece.
- **Seismic – induced failures in slopes and retaining walls at Ionian Islands, Greece. Effect on transportation networks (in Greek)**. Workshop “Landslides: response, monitoring and mitigation

measures, Technical Chamber of Greece – Section of Central Macedonia, Thessaloniki, 30 May 2018. (Co-presented with K. Makra]

- **Urban-scale soil-structure interaction supported by airborne LiDAR data.** Open seminars in the framework of the research project *INDES-MUSA: Innovative multi-sensor network for deformation and seismic monitoring of urban subsidence-prone areas*, November 2015, Athens, Greece.
- **Accelerometric Network in urban environments: deployment, operation, and data acquisition in the urban area of Kalochori** (in Greek), Open seminars in the framework of the research project *INDES-MUSA: Innovative multi-sensor network for deformation and seismic monitoring of urban subsidence-prone areas*, November 2015, Athens, Greece.
- **The historical bridge of Debosset: 1811 – 2014** (in Greek), *Workshop “The Cephalonia Earthquakes: Preliminary findings”*, Co-organized by the Technical Chamber of Greece, the Earthquake Planning and Protection Organization and the Hellenic Society of Earthquake Engineering, April 2014, Athens. [Collaboration with Pitilakis K., Vlachoulis Th., Karani I., Chorafa E., Zarogianni E.]
- **Debosset bridge in Argostoli: Retrofitting measures and seismic response under the strong Cephalonia earthquakes of 26/01/2014 and 03/02/2014** (in Greek), *Workshop “The Cephalonia Earthquakes 2014”*, Technological Institute of Ionian Islands, June 2014, Argostoli, Cephalonia.
- **Innovative multi-sensor monitoring scheme for subsidence- and earthquake-prone coastal areas, Greece – China Workshop on Marine Science and Technology**, Internal workshop organized within the INDES-MUSA project, June 2014, Athens. [Collaboration with V. Charalampopoulou]
- **The historical bridge Debosset: Seismic performance under strong earthquakes** (in Greek), *Workshop “Lessons learnt from the Cephalonia earthquakes of 2014”*, Co-organized by the Technical Chamber of Greece, the Earthquake Planning and Protection Organization and the Hellenic Society of Earthquake Engineering, July 2014, Thessaloniki, Greece. [Collaboration with K. Pitilakis]
- **Kinematic bending of fixed-head piles in nonhomogeneous soil**, IARG2014, July 2014, Chieti, Italy
- **INDES-MUSA Project - Integrated monitoring of subsiding coastal areas prone to strong earthquakes: the case of Kalochori in Greece**, 2nd European Conference on Earthquake Engineering and Seismology, August 2014, Istanbul.
- **Multi-sensor network for monitoring subsidence and seismic motion in Kalochori urban site, N. Greece**, 1st International Geomatics Application Conference, September 2014, Skiathos.
- **DE BOSSET monumental stone bridge in Cephalonia: Strengthening measures and seismic response under the earthquakes of 26/01/2014 and 03/02/2014**, 2nd International Conference on Bridges and Soil-Bridge Interaction, October 2014, Athens.
- **EuroProteas: A full-scale experimental facility for soil-foundation-structure interaction studies, SERIES Concluding Workshop - Joint with US-NEES Earthquake Engineering Research Infrastructure**, May 2013, Ispra, Italy. [Collaboration with Pitilakis D., Anastasiadis A., Tsinidis G. and Pitilakis K.]
- **Dynamic stiffness and kinematic response of piles in inhomogeneous soils** (in Greek), *Workshop “Contribution of young researchers and engineers in earthquake engineering”*, Hellenic Society of Earthquake Engineering, December 2012, Thessaloniki. [Collaboration with G. Mylonakis]

- ***Inertial and kinematic response of piles in layered soils: Winkler analysis***, 2nd Performance Based Design Conference, May 2012, Taormina, Italy.
- ***Physical modeling for the evaluation of the seismic behavior of underground structures***, 3rd International Workshop “Role of research infrastructures in seismic rehabilitation”, SERIES-Seismic Engineering Research Infrastructures for European Synergies, February 2012, Istanbul.
- ***Pseudo-Natural SSI frequency of coupled soil-pile-structure systems***, 21st European Young Geotechnical Engineers Conference, September 2011, Rotterdam, Netherlands.
- ***1D seismic response of soil: Continuously inhomogeneous vs equivalent inhomogeneous soil***, 3rd ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, *COMPADYN 2011*, May 2011, Corfu, Greece.
- ***Experimental p-y loops for estimating seismic soil-pile interaction*** (in Greek), 6th National Conference on Geotechnical and Geoenvironmental Engineering, September 2010, Volos.
- ***Effect of superstructure rotation on the dynamic response of coupled soil-pile-structure systems***, (in Greek), 6th National Conference on Geotechnical and Geoenvironmental Engineering, September 2010, Volos.
- ***1D seismic response of layered inhomogeneous soil: A closed form solution***, 9th HSTAM Congress, July 2010, Limassol, Cyprus.
- ***Evaluation of Dynamic soil-pile interaction based on back-calculated P-Y curves***, 4th International Conference on Earthquake Geotechnical Engineering, June 2007, Thessaloniki.
- ***Insight into soil-pile-structure interaction mechanism including inertial and kinematic effects***, 4th International Conference on Earthquake Geotechnical Engineering, June 2007, Thessaloniki.
- ***Rehabilitation of the historical bridge Debosset in Argostoli*** (in Greek), 1st National Conference of ETEPAM, June 2006, Thessaloniki.
- ***Debosset bridge: Assessment of structural performance and strengthening interventions***, Workshop on Seismic interventions in Monuments and Historical centers, Earthquake Planning and Protection Organization, February 2006, Athens.

12.3 Others Scientific seminars attended

- The Macroelement concept for shallow and deep Foundations: Efficient tool for the analysis of SFSI problems, Seminar delivered by Prof. C. Tamagnini, March 2019, Darwin College, Cambridge, UK.
- 59th Rankine lecture: Benefits of Unconventional Seismic Foundation Design, delivered by Prof. G. Gazetas, March 2019, British Geotechnical Association, Imperial College London, London, UK.
- Workshop: SERA NA5 / JRA4 Joint Site Characterization, 6-7 December 2018, Thessaloniki, Greece.
- European Space Expo Athens on Space data for natural disasters mitigation: Copernicus and Galileo applications, April 2015, Athens, Greece.
- Workshop on Space and Security, 20 June 2014, Athens, Greece.
- *Workshop: The protection of monuments under seismic actions*, Earthquake Planning and

Protection Organization (EPPO) and European Centre on Prevention & Forecasting of Earthquakes of the Council of Europe (E.C.P.F.E), November 2011, Thessaloniki.

- *Workshop: EC8 applications on design and assessment of civil works*, Hellenic Society of Earthquake Engineering (HSEE-ETAM), December 2011, Thessaloniki.

13. SCIENTIFIC PUBLICATIONS

13.1 Dissertations

- D1. **Rovithis Emm.** (2007) “Dynamic Analysis of Coupled Soil-Pile-Structure Systems”, Ph.D. Dissertation, Department of Civil Engineering, Aristotle University of Thessaloniki. (in Greek with English abstract)
- D2. **Rovithis Emm.** (2003) “Effect of foundation soil interventions on the dynamic response of R/C buildings”, M.Sc. Dissertation, Department of Civil Engineering, Aristotle University of Thessaloniki. (in Greek with English abstract)
- D3. **Rovithis Emm.** and Papamiltiadis V. (2002) “Implementation of Greek Seismic Code using ADINA FE platform”, Diploma Thesis, Department of Civil Engineering, Aristotle University of Thessaloniki. (in Greek)

13.2 Book Chapters

- BC.04 Di Laora R. and **Rovithis Emm.** “Design of piles under seismic loading”, In *Analysis of Pile Foundations Under Static and Dynamic Loading*, edited by A.M. Kaynia A., Taylor and Francis <https://doi.org/10.1201/9780429354281-8>.
- BC.03 Limongelli M.P., Dolce M., Spina D., Guéguen P., Langlais, Wolinieck D., Maufroy E., Karakostas Ch., Lekidis V., Morfidis K., Salonikios T., **Rovithis Emm.**, Makra K., Masciotta M.- G., Lourenço P. (2019) “S²HM in some European countries”, In: Limongelli M., Çelebi M. (eds) *Seismic Structural Health Monitoring*. Springer Tracts in Civil Engineering. Springer, Cham. pp. 303-343.
- BC.02 Tsinidis G., **Rovithis Emm.**, Pitilakis K. and Chazelas J-L (2015) “Dynamic Response of Shallow Rectangular Tunnels in Sand by Centrifuge Testing”, Chapter No.30 in *Experimental Research in Earthquake Engineering*, Taucer F. and Apostolska R. (eds), Geotechnical, Geological and Earthquake Engineering, Vol. 35, Springer, pp. 493 – 507.
- BC.01 Mylonakis G., **Rovithis Emm.** and Paraschakis H (2013) “1D harmonic response of layered inhomogeneous soil: Exact and approximate analytical solutions”, Chapter No.1 in *Computational Methods in Earthquake Engineering - Vol. 2*, Papadrakakis M., Fragiadakis M. and Plevris V. (eds), Vol.2 Springer, pp. 1-32.

13.3 Publications in Peer-Reviewed International Journals

- J.26 Ziotopoulou K., Cetin K.O., Pelekis P., Altun S., Klimis N., Sezer A., Rovithis E., Yılmaz M., Papadimitriou A.G., Gulerce Z., Can G., Ilgac M., Cakır E., Soylemez B., Al-Suhaily A., Elsaid A., Zarzour M., Ecemis N., Unutmaz B., Kockar M.K., Akgun M., Kincal C., Bayat E.E., Ozener P.T., Stewart J.P. and Mylonakis G. (2022) *Geotechnical reconnaissance findings of the October 30 2020, Mw7.0 Samos Island (Aegean*

Sea) earthquake, *Bulletin of Earthquake Engineering, S.I.: The M7.0 Samos Island (Aegean Sea) Earthquake of 30th October 2020*, 20: 7819–7852.

- J.25 **Rovithis Emm.** and Mylonakis G. (2022) Seismic response of inhomogeneous soil deposits with exponentially varying stiffness, *Journal of Geotechnical and Geoenvironmental Engineering*, 148(11), 0402209
- J.24 Stacul S., **Rovithis Emm.** and Di Laora R. (2022) Kinematic soil-pile interaction under earthquake induced nonlinear soil and pile behaviour: An equivalent-linear approach, *Journal of Geotechnical and Geoenvironmental Engineering*, 148(7), 04022055
- J.23 Tott-Buswell J., Garala T.K., Prendergast L.J., Madabhushi S.P.G., **Rovithis Emm.** (2022) Seismic response of piles in layered soils: Performance of pseudostatic Winkler models against centrifuge data, *Soil Dynamics and Earthquake Engineering*, 153: 107110
- J.22 Karakostas Ch., Morfidis K., **Rovithis Emm.**, Theodoulidis N. (2022) Soil-structure interaction effects on the seismic response of a public building in Lefkas, Greece, *Bulletin of Earthquake Engineering, S.I.: Soil-Structure Interaction Effects on the Dynamics of Structures*, 20: 3549 – 3575.
- J.21 Cetin K.O., Papadimitriou A., Altun S., Pelekis P., Unutmaz B., **Rovithis Emm.**, Akgun M., Klimis N., Askan A., Ziotopoulou K., Sezer A., Kincal C., Ilgac M., Can G., Cakir E., Soylemez B., Al-Suhaily A., Elsaid A., Zarzour M., Stewart J., Mylonakis G. (2021) The role of site effects on elevated seismic demands and corollary structural damage during the October 30, 2020, M7.0 Samos Island (Aegean Sea) Earthquake, *Bulletin of Earthquake Engineering, S.I.: The M7.0 Samos Island (Aegean Sea) Earthquake of 30th October 2020*, 20: 7763–7792.
- J.20 Makra K., **Rovithis Emm.**, Riga e., Raptakis D. and Ptilakis K. (2021) “Amplification features and observed damages in İzmir (Turkey) due to 2020 Samos (Aegean Sea) earthquake: identifying basin effects and design requirements”, *Bulletin of Earthquake Engineering*, 19: 4773-4804.
- J.19 Kirtas Emm., **Rovithis Emm.** and K. Makra (2020) “On the modal response of an instrumented steel water-storage tank including soil-structure interaction”, *Soil Dynamics and Earthquake Engineering*, 135, 106198.
- J.18 Iovino M., Di Laora R., **Rovithis Emm.** and de Sanctis L. (2019) “The beneficial role of piles on the seismic loading of structures”, *Earthquake Spectra*, 35(3):1141-1162.
- J.17 Ptilakis D., **Rovithis Emm.**, Anastasiadis A., Vratsikidis A. and Manakou M. (2018) “Field evidence of SSI from full-scale structure testing”, *Soil Dynamics and Earthquake Engineering*, 112: 89 - 106.
- J.16 **Rovithis Emm.**, Makra K., Kirtas Emm., Manesis Ch., Bliziotis D., and Konstantinidou K. (2018) “Field monitoring of strong ground motion in urban areas: the Kalochori Accelerometric Network (KAN), database and Web-GIS portal”, *Earthquake Spectra*, 34(2): 471-501.
- J.15 Conti R., Morigi M., **Rovithis Emm.**, Theodoulidis N. and Karakostas Ch. (2018) “Filtering action of embedded massive foundations: New analytical expressions and evidence from 2 instrumented buildings”, *Earthquake Engineering and Structural Dynamics*, 1-21: <https://doi.org/10.1002/eqe.3014>
- J.14 **Rovithis Emm.**, Kirtas Emm., Bliziotis D., Maltezos E., Ptilakis D., Makra K., Savvaidis A., Karakostas Ch., Lekidis V. (2017) “A LiDAR-aided urban-scale assessment of soil-structure interaction effects: The case of Kalochori residential area (N. Greece)” *Bulletin of Earthquake Engineering*, 15(11): 4821-4850.

- J.13 **Rovithis Emm.**, Makra K., Savvaidis A., Kirtas Emm. (2016) “The accelerometric network of the INDESMUSA project in the Kalochori area: Configuration, documentation and preliminary data interpretation” *Bulletin of the Geological Society of Greece*, 50: 1100 – 1119.
- J.12 Tsinidis G., **Rovithis Emm.**, Pitilakis K. & Chazelas J-L (2016) “Seismic Response of Box-Type Tunnels in Soft Soil: Experimental and Numerical Investigation” *Tunneling and Underground Space Technology*, 59: 199-214.
- J.11 Kirtas Emm., Koliopoulos P., Panagopoulos G., Mouratidis E., Sous I., Kappos A., Theodoulidis N., Savvaidis A., Margaris B., **Rovithis Emm.** (2016) “Identification of earthquake ground motion using site effects analysis in the case of Serres city, Greece”, *International Journal of Civil Engineering and Architecture*, 2(1): 20-27.
- J.10 **Rovithis Emm.** and Pitilakis K. (2016) Seismic assessment and retrofitting measures of a historic stone masonry bridge, *Earthquakes and Structures*, 10(3): 645-667.
- J.09 Di Laora R. and **Rovithis Emm.** (2016) “Closure to “Kinematic Bending of Fixed-Head Piles in Nonhomogeneous Soil” by Raffaele Di Laora and Emmanouil Rovithis”, *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 142(2), 07015043.
- J.08 Theodoulidis N., Karakostas Ch., Lekidis V., Makra K., Margaris B., Morfidis K., Papaioannou Ch., **Rovithis Emm.**, Salonikios T. and Savvaidis A. (2015) “The Cephalonia, Greece, January 26 (M6.1) and February 3, 2014 (M6.0) earthquakes: near-fault ground motion and effects on soil and structures”, *Bulletin of Earthquake Engineering*, 14(1): 1-38.
- J.07 Di Laora R. and **Rovithis Emm.** (2015) “Kinematic bending of fixed-head piles in nonhomogeneous soil”, *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 141(4), 04014126.
- J.06 **Rovithis Emm.**, Mylonakis G. and Pitilakis K. (2013) “Dynamic stiffness and kinematic response of single piles in inhomogeneous soil”, *Bulletin of Earthquake Engineering*, 11(6), pp. 1949-1972
- J.05 **Rovithis Emm.**, Paraschakis Ch. and Mylonakis G. (2011) “1D harmonic response of layered inhomogeneous soil: analytical investigation”, *Soil Dynamics and Earthquake Engineering*, 31(7), pp. 879 - 890.
- J.04 **Rovithis Emm.**, Pitilakis K. and Mylonakis G. (2011) “A note on a pseudo-natural SSI frequency for coupled soil-pile-structure systems”, *Soil Dynamics and Earthquake Engineering*, 31(7), pp. 873- 878.
- J.03 **Rovithis Emm.**, Pitilakis K. and Mylonakis G. (2009) “Seismic analysis of coupled soil-pile-structure systems leading to the definition of a pseudo natural SSI frequency”, *Soil Dynamics and Earthquake Engineering*, 29(6), pp. 1005-1015. [Listed among the 25 most downloaded articles of the Journal for a full academic year: October 2009 – September 2010]
- J.02 **Rovithis Emm.**, Kirtas E. and Pitilakis K. (2009) “Experimental p-y loops for estimating seismic soil-pile interaction”, *Bulletin of Earthquake Engineering*, 7(3), pp. 719-736.
- J.01 Kirtas E., **Rovithis Emm.**, Pitilakis K. (2009) “Subsoil Interventions Effect on Structural Seismic Response. Part I: Validation of Numerical Simulations”, *Journal of Earthquake Engineering*, 13, pp. 155-169.

13.4 Publications in International Conferences Proceedings

- IC.40 Iovino M., **Rovithis Emm.**, Di Laora R., D'Alterio C., de Sanctis L., Garala T., Haigh S. and Madabhushi G. (2021) "Aspects of seismic soil-pile-structure interaction in soft clay by centrifuge testing", 8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2021), 28-30 June, Athens, Greece, paper No. 19562.
- IC.39 Stacul S., **Rovithis Emm.**, Di Laora R. (2021) "Kinematic pile-head bending under large earthquake-induced shear strains", 8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2021), 28-30 June, Athens, Greece paper No. 19487.
- IC.38 **Rovithis Emm.**, Di Laora R., Iovino M. and de Sanctis L. (2019) "Filtering effect of piles in very soft clays: Analysis of a real case study", 7th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN2019), 24-26 June, Crete, Greece, paper ID: 19962.
- IC.37 Karakostas Ch., **Rovithis Emm.**, Morfidis K., Chatzistefanou G., Lekidis V., Theodoulidis N. and Makarios T. (2018) "Investigation of the Dynamic Response and SSI effects of the Instrumented Municipality Building in Lefkas, Greece", Proceedings of the 16th European Conference on Earthquake Engineering (16ECEE), 18-21 June, Thessaloniki, Greece, paper No. 11461.
- IC.36 Makra K., Savvaidis A. and **Rovithis Emm.** (2018) "Site Response Characteristics Of A Deep Sedimentary Basin. The Case Of Kalochori, N. Greece", Proceedings of the 16th European Conference on Earthquake Engineering (16ECEE), 18-21 June, Thessaloniki, Greece, paper No. 11322.
- IC.35 Kirtas Emm., **Rovithis Emm.**, Makra K., and Papaevangelou I. (2018) "Dynamic response characteristics of an instrumented steel water tank in Kalochori, N. Greece", Proceedings of the 16th European Conference on Earthquake Engineering (16ECEE), 18-21 June, Thessaloniki, Greece, paper No. 11167.
- IC.34 Papaioannou Ch., Karakostas Ch., **Rovithis Emm.**, Salonikios T., Theodoulidis N., Makra K., Lekidis V., Margaris V., Zacharopoulos S. and Morfidis K. (2018) "The June-July, 2017 Earthquake Sequences in Eastern Aegean Sea: Ground Motions, Geotechnical Ground Failures and Structural Response", Proceedings of the 16th European Conference on Earthquake Engineering (16ECEE), 18-21 June, Thessaloniki, Greece, paper No. 12192.
- IC.33 Papaioannou Ch., Karakostas Ch., Makra K., Lekidis V., Margaris V., Morfidis K., Theodoulidis N., Salonikios T., **Rovithis Emm.**, Zacharopoulos S. (2018) "The November 17, 2015 M6.4 Lefkas, Greece Earthquake: Source Characteristics, Ground Motions, Ground Failures and Structural Response", Proceedings of the 16th European Conference on Earthquake Engineering (16ECEE), 18-21 June, Thessaloniki, Greece, paper No. 11951.
- IC.32 Iovino M., Di Laora R., **Rovithis Emm.**, de Sanctis L. (2017) "Effetto filtro esercitato da pali in terreni non omogenei", Proceedings of Incontro Annuale dei Ricercatori di Geotecnica (IARG2017), 5-7 July, Matera, Italy.
- IC.31 Morigi M., Conti R., **Rovithis Emm.**, Theodoulidis N. and Karakostas Ch. (2017) "Analisi del comportamento sismico di fondazioni interrate: Previsioni teoriche e osservazioni su strutture

esistenti”, Proceedings of Incontro Annuale dei Ricercatori di Geotecnica (IARG2017), 5-7 July, Matera, Italy.

- IC.30 **Rovithis Emm.**, Di Laora R., Iovino M., de Sanctis L. (2017) “Reduction of seismic loading on structures induced by piles in inhomogeneous soil”, Proceedings of the 6th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN2017, Papadrakakis M, Fragiadakis eds, 15-17 June, Rhodes Island, Greece, paper No. 18333, pp.1203-1215.
- IC.29 Conti R., Morigi M., Viggiani G., **Rovithis Emm.**, Theodoulidis N. and Karakostas Ch. (2017) “Quasi-kinematic response of embedded foundations: Evidence of foundation mass effect from numerical analyses and instrumented structures”, Proceedings of the 6th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN2017, Papadrakakis M, Fragiadakis eds, 15-17 June, Rhodes Island, Greece, paper No. 17424, pp. 1360-1374.
- IC.28 Karakostas Ch., Kontogiannis G., Morfidis K., **Rovithis Emm.**, Manolis G. and Theodoulidis N. (2017) “Effect of soil-structure interaction on the seismic response of an instrumented building during the Cephalonia, Greece earthquake of 26-1-2014”, Proceedings of the 6th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN2017, Papadrakakis M, Fragiadakis eds, 15-17 June, Rhodes Island, Greece, paper No. 17182, pp. 1375-1387.
- IC.27 **Rovithis Emm.**, Kirtas Emm., Bliziotis D., Maltezos E., Pitilakis D., Makra K., Savvaidis A., Karakostas Ch., Lekidis V. (2016) “Airborne LiDAR and field data combination towards SSI applications at large-scale: The case of the Kalochori urban area in Greece”, Proceedings of the 1st International Conference on Natural Hazards and Infrastructure (ICONHIC2016), 28-30 June, Chania, Greece, paper No. 79.
- IC.26 **Rovithis Emm.**, Kirtas Emm., Marini E., Bliziotis D., Maltezos E., Pitilakis D., Makra K., Savvaidis A. (2016) “Assessment of seismic loading on structures based on airborne LiDAR data from the Kalochori urban area (N. Greece)”, Proceedings SPIE 9688, 4th International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2016), 96880M (August 12, 2016); doi:10.1117/12.2241746.
- IC.25 **Rovithis Emm.**, Di Laora R. and de Sanctis L. (2015) “Foundation motion filtered by piles: effect of soil inhomogeneity”, XVI European Conference on Soil Mechanics and Geotechnical Engineering (XVI ECSMGE), September 13-17, Edinburgh, pp. 1169-1174.
- IC.24 Pitilakis D., **Rovithis Emm.**, Massimino M.R., Gatto M.P.A (2015) “Numerical simulation of large-scale soil-foundation-structure interaction experiments in the EuroProteas facility”, 6th International Conference on Earthquake Geotechnical Engineering (6ICEGE), November 1-4, Christchurch, New Zealand, paper No. 401.
- IC.23 Tsinidis G., **Rovithis Emm.**, Pitilakis K. & Chazelas J-L, (2015) “Seismic response of rectangular tunnels by centrifuge testing and numerical analysis”, SECED 2015 Conference: Earthquake Risk and Engineering towards a Resilient World, July 9-10, Cambridge UK.
- IC.22 **Rovithis Emm.**, Pitilakis K., Vlachoulis T., Karani I., Chorafa E. and Zarogiani E. (2014) “DE BOSSET monumental stone bridge in Cephalonia: Strengthening measures and seismic response under the earthquakes of 26/01/2014 and 03/02/2014”, 2nd International Conference on “Innovations on Bridges and Soil-Bridge Interaction, October 16-18, Athens, pp. 111-118.
- IC.21 Charalampopoulou B., Manesis Ch., Tsvikis K., Savvaidis A., Makra K., Ganas A., **Rovithis Emm.** (2014), “3D city model using LiDAR & digital color imagery in Kalochori region”, 1st International Geomatics Application Conference (GEOMAPPLICA), Skiathos, September 08-10, pp. 72-81.

- IC.20 Theodoulidis N., Margaris B., Savvaidis A., Kirtas Emm., **Rovithis Emm.** (2014) "Defining shallow structure properties by composing ambient noise and geological data for seismic risk mitigation: The case of Serres city (northern Greece)", *1st International Geomatics Application Conference (GEOMAPPLICA)*, Skiathos, September 08-10, pp. 52-58.
- IC.19 **Rovithis Emm.**, Savvaidis A., Makra K., Ganas A., Loupasakis C., Kirtas Emm., Charalampopoulou B. (2014), "Multi-sensor network for monitoring subsidence and seismic motion in Kalochori urban site, N. Greece", *1st International Geomatics Application Conference (GEOMAPPLICA)*, Skiathos, September 08-10, pp. 36-43.
- IC.18 Tsinidis G., **Rovithis Emm.**, Pitilakis K. & Chazelas J-L, (2014) "Dynamic centrifuge testing of rectangular tunnels in soft soils", *2nd European Conference on Earthquake Engineering and Seismology (2ECEES)*, 25-29 August, Istanbul, paper No. 632.
- IC.17 Pitilakis D., Lamprou D., Manakou M., **Rovithis Emm.** and Anastasiadis A. (2014) "System identification of soil-foundation-structure systems by means of ambient noise records: The case of Europroteas model", *2nd European Conference on Earthquake Engineering and Seismology (2ECEES)*, 25-29 August, Istanbul, paper No. 1361.
- IC.16 Di Laora R. and **Rovithis Emm.** (2014) "Kinematic bending of fixed-head piles in nonhomogeneous soil", *2nd European Conference on Earthquake Engineering and Seismology (2ECEES)*, 25-29 August, Istanbul, paper No. 1343.
- IC.15 Tsinidis G., **Rovithis Emm.**, Pitilakis K. & Chazelas J-L, (2014) "Dynamic Response of Square Tunnels: Centrifuge Testing and Validation of Existing Design Methodologies" *2nd Eastern European Tunneling Conference: "Tunneling in a Challenging Environment"*, 28 September - 01 October, Athens, paper No.049
- IC.14 Di Laora R. and **Rovithis Emm.** (2014) "Kinematic bending of fixed-head piles in nonhomogeneous soil", *Incontro Annuale dei Ricercatori di Geotecnica (IARG)*, Chieti e Pescara, 14-16 July
- IC.13 Pitilakis K., Anastasiadis A., Pitilakis D., **Rovithis Emm.** (2013) "Full-scale testing of a model structure in EUROSEISTEST to study soil-foundation-structure interaction", *4th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN)*, Kos, 12-14 June, paper No. 1546, pp. 1175-1188.
- IC.12 **Rovithis Emm.**, Mylonakis G.E., and Pitilakis K. (2012) "Inertial and kinematic response of piles in layered inhomogeneous soil: Winkler analysis", *2nd International Conference on Performance-Based Design in Earthquake Geotechnical Engineering*, Taormina, May 25-28, paper No. 11.21, pp. 1371 – 1384.
- IC.11 Mylonakis G.E, **Rovithis Emm.** and Paraschakis (2011). "1D seismic response of soil: Continuously inhomogeneous vs equivalent inhomogeneous soil", *III ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN)*, May 26-28, Corfu, paper No. 204, pp. 1335 – 1348.
- IC.10 **Rovithis Emm.** and Pitilakis K. (2011) "Seismic performance and rehabilitation of old stone bridges in earthquake-prone areas: The case of DeBosset in Greece", *International Conference on "Innovations on Bridges and Soil-Bridge Interaction"*, October 13-15, Athens, pp. 311-318.

- IC.09 **Rovithis Emm.**, Pitilakis K. and Mylonakis G. (2011) "Pseudo-Natural SSI frequency of coupled soil-pile-structure systems", *21st European Young Geotechnical Engineers Conference*, September 4-7, Rotterdam, pp. 150-155.
- IC.08 Paraschakis Ch., **Rovithis Emm.** and Mylonakis G. (2010) "1D seismic response of layered inhomogeneous soil: A closed form solution", *9th HSTAM International Congress on Mechanics*, Limassol, July 12-14, pp. 639-647.
- IC.07 Pitilakis K., Kirtas E. & **Rovithis Emm.** (2009) "Effect of Foundation Soil Interventions to the Seismic Response of MDOF Structures", *3rd Greece-Japan Workshop on Seismic Design, Observation and Retrofit of Foundations*, September 22-23, Santorini, pp. 276 - 286.
- IC.06 Kirtas E., Trevlopoulos K., **Rovithis Emm.**, Pitilakis K. (2007) "Discussion of the fundamental period of SDOF systems including soil-structure interaction", *4th International Conference on Earthquake Geotechnical Engineering*, June 25-28, Thessaloniki, paper No.1692.
- IC.05 **Rovithis Emm.**, Kirtas E. and Pitilakis K. (2007) "Evaluation of Dynamic soil-pile interaction based on back-calculated P-Y curves", *4th International Conference on Earthquake Geotechnical Engineering*, June 25-28, Thessaloniki, paper No.1694.
- IC.04 **Rovithis Emm.**, Kirtas E. and Pitilakis K. (2007) "Insight into soil-pile-structure interaction mechanism including inertial and kinematic effects", *4th International Conference on Earthquake Geotechnical Engineering*, June 25-28, Thessaloniki, paper No.1695.
- IC.03 Kirtas E., **Rovithis Emm.** and Pitilakis K. (2006) "Numerical Investigation of subsoil Interventions towards Structural Seismic Risk Mitigation", *1st European Conference on Earthquake Engineering and Seismology*, September 3-8, Geneva, paper No.953.
- IC.02 Kirtas E., **Rovithis Emm.**, Pitilakis K. and Sextos A. (2006) "Numerical Investigation of Potential Foundation Intervention as a means for Mitigating Seismic Risk", *8th U.S. National Conference on Earthquake Engineering*, April 18-22, San Francisco, paper No.833.
- IC.01 Pitilakis K., Kirtas E., **Rovithis Emm.** (2005) "Is it possible to improve the seismic structural behaviour with intervention to Subsoil and Foundation Conditions?", *1st Greece – Japan Workshop on Seismic Design, Observation and Retrofit of Foundations*, October 11-12, Athens, pp. 185-202.

13.5 Publications in National Conferences Proceedings

- GC.16 **Rovithis Emm.**, Kirtas Emm. and Makra K. (2022) "Numerical investigation of soil-structure interaction on the modal response of cylindrical steel water-storage tanks with different H/R ratios", *5^o National Conference on Earthquake Engineering and Engineering Seismology*, 5-7 September 2022, Athens, Greece, paper ID: 19511(in Greek).
- GC.15 Koutsantonakis Ch., Paraschakis Ch., **Rovithis Emm.** and Mylonakis G. (2019) "Seismic response of an inhomogeneous viscoelastic layer over inhomogeneous halfspace: Analytical solution" In Proceedings of the 4th National Conference on Earthquake Engineering and Engineering Seismology, 5-7 September, Athens, Greece, paper ID: 18671 (in Greek).
- GC.14 Papaioannou Ch., Theodoulidis N., Karakostas Ch., Kleanthi M., Konstantinidou K., Lekidis V., Makra K., Margaris B., Morfidis K., Mokos V., **Rovithis Emm.**, Salonikios T. (2019) "Lesvos earthquake 2018: Recorded accelerations, geotechnical observations and effects on structures" In Proceedings of the 4th

National Conference on Earthquake Engineering and Engineering Seismology, 5-7 September, Athens, Greece (in Greek), paper ID: 18741.

- GC.13 Charalampopoulou V., Manesis CH., Tsvikis K., Savvaidis A., Makra K., Ganas A. and **Rovithis Emm.** (2014) “3D city model by airborne LiDAR & RGB Color imagery in the area of Kalochori (INDES-MUSA project, www.indes-musa.gr)”, In Proceedings of the 4th National Conference of Rural and Surveying Engineering, October 2014, Thessaloniki (in Greek).
- GC.12 Pitilakis D., **Rovithis Emm.** and Anastasiadis A. (2014) “Experimental investigation of dynamic soil-structure interaction in the real-scale model of Europroteas”, In Proceedings of the 7th National Conference of Geotechnical Engineering, Athens, Session XVI, paper No. 13 (in Greek).
- GC.11 Tsinidis G., **Rovithis Emm.**, Pitilakis K. and Chazelas J-L (2014) “Dynamic response of box-type tunnels in alluvial deposits: Experimental and numerical investigation”, In Proceedings of the 7th National Conference of Geotechnical Engineering, Athens, Session XV, paper No. 12 (in Greek).
- GC.10 **Rovithis Emm.**, Mylonakis G. and Pitilakis K. (2014) «Impedance functions and kinematic interaction factors of single piles in inhomogeneous soil», In Proceedings of the 7th National Conference of Geotechnical Engineering, Athens, Session XI, paper No. 10 (in Greek).
- GC.09 **Rovithis Emm.** and Mylonakis G. (2012) “Dynamic stiffness and kinematic response of piles in inhomogeneous soil”, 1st Young Researchers Earthquake Engineering Workshop of the Hellenic Society of Earthquake Engineering, December 7, Thessaloniki, 8 pages in CD-ROM proceedings (in Greek)
- GC.08. **Rovithis Emm.**, Pitilakis K. and Kirtas Em. (2010) “Experimental p-y loops for estimating seismic soil-pile interaction“, 6th Greek Conference in Geotechnical and Geoenvironmental Engineering, September 9 – October 1, Volos, Vol. I, pp. 613-620 (in Greek)
- GC.07 **Rovithis Emm.**, Pitilakis K. and Mylonakis G. (2010) “Effect of superstructure rotation on the dynamic response of coupled soil-pile-structure systems“, 6th Greek Conference in Geotechnical and Geoenvironmental Engineering, September 9 – October 1, Volos, Vol. I, pp. 621-628 (in Greek)
- GC.06 Kirtas Em., **Rovithis Emm.**, Pitilakis K. (2010) “Numerical investigation of subsoil intervention’s effect on the seismic response of multistory frame structures“, 6th Greek Conference in Geotechnical and Geoenvironmental Engineering, September 9 – October 1, Volos, Vol. I, pp. 337-344 (in Greek)
- GC.05 Trellopoulos K., **Rovithis Emm.**, Anastasiadis A. and Pitilakis K. (2010) “Study of the Dynamic Response of Structures on Improved Soil“, 6th Greek Conference in Geotechnical and Geoenvironmental Engineering, September 9 – October 1, Volos, Vol. I, pp. 597-604 (in Greek)
- GC.04 **Rovithis Emm.**, Pitilakis K. and Mylonakis G. (2008) “Seismic Analysis of Coupled Soil-Pile-Structure Systems“, 3rd Greek Conference on Earthquake Engineering and Engineering Seismology, November 5-7, Athens, paper No. 2007. (in Greek)
- GC.03 **Rovithis Emm.**, Pitilakis K. and Apostolidis P. (2006) “Rehabilitation of the historical bridge Debossset in Argostoli“, 1st National Conference of the Hellenic Society for Research and Promotion of the Scientific Rehabilitation of Monuments, June 14-17, Thessaloniki, 12 pages in Proceedings Vol., (in Greek)
- GC.02 **Rovithis Emm.**, Pitilakis K., Kirtas Em. (2006) “Seismic response of piled foundations on soft soil“, 5th Greek Conference in Geotechnical and Geoenvironmental Engineering, May 31 – June 2, Xanthi, Vol. II, pp. 433-440. (in Greek)
- GC.01 Kirtas Em. Pitilakis K., **Rovithis Emm.** (2006) “Numerical investigation of potential seismic risk mitigation at structures implementing foundation soil interventions“, 5th Greek Conference in Geotechnical and Geoenvironmental Engineering, May 31 – June 2, Xanthi, Vol. II, pp. 231-238. (in Greek)

13.6 Extended Abstracts

- EA.07 Chatzis N., Kkallas Ch., Papazachos C., Anthymidis M., **Rovithis Emm.**, Karakostas Ch., Papaioannou Ch. (2019) "Stochastic simulation of seismic motion and site-effects studies of ambient noise and seismic data: The case of the Vrisa settlement and the 2017 M=6.3 Lesvos earthquake", 15th International Congress of the Geological Society of Greece, 22-24 May, Athens, Greece, abstract No. 250.
- EA.06 Kkallas Ch., Papazachos C., **Rovithis Emm.**, Karakostas Ch., Papaioannou Ch., Anthymidis M. and Chatzis N. (2018) "Stochastic ground motion simulation of the 2017 M=6.3 Lesvos earthquake: Explaining the damage pattern of the historical Vrisa settlement", *The European Seismological Commission 36th General Assembly*, 2-7 September, Malta, abstract No. 526.
- EA.05 Chatzis N., Papazachos C., Anthymidis M., Kkallas Ch., **Rovithis Emm.**, Karakostas Ch., and Papaioannou Ch. (2018) "Spatial variations of site-effects recovered from a 3D V_s -model based on the joint inversion of MASW and ambient data, and their correlation with damage from strong earthquakes: The case of the Vrisa settlement and the 2017 M=6.3 Lesvos earthquake", *The European Seismological Commission 36th General Assembly*, 2-7 September, Malta, abstract No. 849.
- EA.04 Papazachos C., Chatzis N., Kkallas Ch., Anthymidis M., **Rovithis Emm.**, Karakostas Ch., and Papaioannou Ch. (2018) "How does local faulting and geology control the earthquake damage distribution? The Lesvos 2017 earthquake case", *9th International INQUA Meeting on Paleoseismology, Active Tectonics and Archeoseismology (PATA)*, 25 – 27 June 2018, Possidi, Greece, abstract No. 99.
- EA.03. Maltezos B., Bliziotis B., Manesis Ch., Charalampopoulou V., Rovithis Emm., Kirtas Emm., Makra K. and Savvaidis A. (2016) "Innovative multi-sensor network for monitoring soil subsidence and earthquake motion in urban areas prone to soil subsidence (Indes-Musa): Automatic change detection through orthophotos and cloud points", *Bulletin of Rural and Surveying Engineers*, Issue 227: 32-33.
- EA.02 **Rovithis Emm.**, Charalampopoulou B., Ganas A., Savvaidis A., Makra K., Konstantinidou K., Kirtas Emm., Karakostas Ch., Lekidis V., Pitilakis D., Loupasakis C., Tsimi Ch. and Manesis Ch. (2014) "INDESMUSA Project - Integrated monitoring of subsiding coastal areas prone to large earthquakes: the case of Kalochori in Greece", *2nd European Conference on Earthquake Engineering and Seismology (2ECEES)*, 25-29 August, Istanbul, paper No. 2739.
- EA.01 Theodoulidis N., Karakostas Ch., Lekidis V., Makra K., Margaris B., Morfidis K., Papaioannou Ch., **Rovithis Emm.**, Salonikios Th. and Savvaidis A. (2014) "The Cephalonia (Greece) earthquakes of January 26 & February 3, 2014: Effects on soil and built environment", *2nd European Conference on Earthquake Engineering and Seismology (2ECEES)*, 25-29 August, Istanbul, paper No. 3008.

13.7 Other Publications (Research reports, field reconnaissance reports, Web articles etc)

- Makra K., **Rovithis Emm.**, Riga E., Raptakis D. & Pitilakis, K. (2020). A note on the strong ground motions recorded in Izmir (Turkey) during the October 30th, 2020 M 7.0 Aegean Sea earthquake: The role of basin effects. A non-peer reviewed preprint uploaded to ResearchGate (November 29, 2020), <https://dx.doi.org/10.13140/RG.2.2.34517.65762>

- RR13. ITSAK – DUTH (2021): Thessaly earthquakes M6.3 (03/03/2021) and M6.1 (04/03/2021) – Preliminary Report. Research Unit ITSAK of EPPO and Department of Civil Engineering, Democritus University of Thrace. p. 63. <https://doi.org/10.5281/zenodo.4641200> .
- RR12. GEER (2020) Seismological and Engineering Effects of the M 7.0 Samos Island (Aegean Sea) Earthquake: Συμμετοχή στο Chapter 4 – Site Effects και Chapter 5 – Geotechnical Reconnaissance Findings, <https://dx.doi.org/10.18118/G6H088>.
- RR11. ITSAK – EPPO/OASP (2020) The Earthquake of Oct. 30, 2020, Mw7.0 (11:51GMT) North of Samos Island (Greece), Preliminary Report ITSAK v3.0, Thessaloniki, Greece.
(http://www.itsak.gr/uploads/news/earthquake_reports/EQ_Samos_20201030_report_v3.pdf)
- RR10. ITSAK (2020): Epirus earthquake M5.6 (21/3/2020) – Preliminary Report. Research Unit ITSAK. Thessaloniki, p. 10.
(http://www.itsak.gr/uploads/news/earthquake_reports/EQ_Epirus_20200321_M5.6.pdf)
- RR.09 ITSAK (2019) NW Attica earthquake M5.3 (19/07/2017): Preliminary report (available from <http://www.itsak.gr/news/news/176>)
- RR.08 Karakostas Ch., Konstantinidou K., Lekidis V., Makra K., Margaris B., Morfidis K., Papaioannou Ch., **Rovithis Emm.**, Salonikios T., Theodoulidis N. ITSAK (2018) S. Ionian sea earthquake M6.8 on 25/10/2018: Strong ground motion and effects on soil and built environment, Thessaloniki, 23p (available from <http://www.itsak.gr/en/news/news/157>)
- RR.07 ITSAK (2017) Lesvos Mw6.3 earthquake on 12/06/2017: Preliminary report on earthquake recordings and effects on soil and structures, 12p.
- RR.06 ITSAK (2016) Ioannina (Western Greece) Mw5.5 earthquake on 15/10/2016: Preliminary report on earthquake recordings and effects on soil and structures, Thessaloniki, 13p (available from <http://www.itsak.gr/news/news/163/>)
- RR.05 GEER/EERI/ATC Earthquake Reconnaissance January 26th/February 3rd 2014 Cephalonia, Greece events
- RR.04 Karakostas Ch., Lekidis V., Makra K., Margaris B., Morfidis K., Papaioannou Ch., **Rovithis Emm.**, Salonikios T., Savvaidis A., Theodoulidis N. (2014) “Strong ground motion of the February 3, 2014 (M6.0) Cephalonia earthquake: Effects on soil and built environment in combination with the January 26, 2014 (M6.1) event”, Report of EPPO-ITSAK, February 2014, 80p. (Available from <http://www.itsak.gr/news/news/79/>)
- RR.03 Karakostas Ch., Lekidis V., Makra K., Margaris B., Morfidis K., Papaioannou Ch., **Rovithis Emm.**, Salonikios T., Savvaidis A., Theodoulidis N. (2014) “The earthquake of 26/01/2014 (M6.1) in Cephalonia (Greece): Strong ground motion, soil behavior and response of structures”, Report of EPPO-ITSAK, February 2014, 48p. (Available from <http://www.itsak.gr/news/news/70>)
- RR.02 Tsinidis G., **Rovithis Emm.**, Pitilakis K. and Chazelas JL. (2013) “Investigation of the seismic behavior of shallow rectangular underground structures in soft soils using centrifuge experiments”, DRESBUS II TA Report of SERIES FP7 research project, WP10/TA6 – IFSTTAR Centrifuge, 175p. (available from http://www.series.upatras.gr/DRESBUS_II)
- RR.01 Pitilakis D., Anastasiadis A., **Rovithis Emm.**, Manakou M., Riga E., Roumelioti Z., Raptakis D., Pitilakis K., Drosos V., Anastasopoulos I., Gazetas G., Psycharis I., Mouzakis H., Kopf F., Bekö A., Schäfer D.,

Rossbacher L., Ansal A., Kurtuluş A., Tönük G., Askan A., Tolga Yılmaz M., Sesov V., Edip K., Cvetanovska J. (2012) "Field testing for assessing input motions and SSI", Report of SERIES FP7 research project, WP14/JRA3, 423p. (Available from http://www.series.upatras.gr/SSI_wave_propagation)

INnovative multi-sensor network for DEformation and Seismic Monitoring of Urban Subsidence-prone Areas (INDES-MUSA), Announcement in European Association of Remote Sensing Companies (EARSC) bulletin, Apr. 2015 (available from: <https://earsc-portal.eu/display/EOSTAN/INnovative+multi-sensor+network+for+DEformation+and+Seismic+Monitoring+of+Urban+Subsidence-prone+Areas>)

INDES MUSA. Change detection using LiDAR point clouds and orthoimages, Announcement in European Association of Remote Sensing Companies (EARSC) bulletin, Feb. 2016 (available from: <https://earsc-portal.eu/pages/viewpage.action?pageId=34868014>)