

EXPRESSION OF INTEREST FORM

This Expression of Interest (EOI) document has been prepared to enable researchers of Istanbul Technical University (ITU) to be rapidly and effectively included in existing and potential consortia, primarily within the scope of Horizon Europe and other International Programmes.

The information collected through this form will be used by the ITU International Projects Office for the following purposes:

- Matching researchers with ongoing consortium searches,
- Communication with international project partners,
- Targeted invitations and information dissemination for relevant calls.

Contact Person/Scientist in charge <i>(data of the principal investigator of the research group/lab or scientific supervisor)</i>	Name	Alper
	Surname	Ilki
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Laboratory /Department /Institute /Centre /	Name	Civil Engineering Department
Brief description of the Centre/Research Group <i>(Please provide a brief description of your research group or organisational unit, including research infrastructure, laboratory facilities, team size and industry collaborations.)</i>		<p>Vast experience in seismic assessment/design/retrofit of reinforced concrete and masonry structures including historical heritage.</p> <p>Vast experience in structural and earthquake engineering at laboratory (quasi-static and dynamic tests, including impact) and in full-scale outdoor testing as well as participation/contribution in large shake table tests in Turkiye and abroad such as Japan, France and Macedonia.</p> <p>Vast experience in numerical modelling of seismic behavior/performance of reinforced concrete and masonry structures, including damaged structures after earthquakes and fires.</p> <p>Experience in EU, NATO, JICA, Tubitak research projects as well as wide range of application projects.</p> <p>Vast experience in post-earthquake damage assessment and field survey.</p> <p>Team of approximately 25 researchers of academics, post-docs and graduate students.</p>
	Address	Istanbul Technical University
Research Area <i>(Please provide 5–10 keywords that best describe your research areas and expertise.)</i>		Seismic behavior, Reinforced concrete structures, Seismic risk assessment, Seismic retrofit, Repair and retrofit of damaged structures, Large-scale structural testing, Fiber reinforced polymers, Historical structures, Structural damage assessment, Masonry structures

Please list your relevant previous projects, indicating the programme, project name, year and role.

-Empirical vulnerability curves due to damages in Kahramanmaraş earthquakes, Turkish Catastrophe Insurance Pool-Turkish Earthquake Foundation, Consultant, Nov 2024-Nov 2025 (12 ay).

-Classification of Post-Earthquake Element-Based Damages in Reinforced Concrete Buildings with an Artificial Intelligence-Based Algorithm, Turkish Catastrophe Insurance Pool-Turkish Earthquake Foundation, Consultant, March 2024-March 2026 (24 ay).

*-A new performance target in earthquake resistant building design: "Repairable Damage" and innovative repair methods for code-complying structures, TUBITAK, **Project Coordinator**, 2021-2024.*

*-Performance assessment of full-scale precast tunnel segments built with macro-synthetic fiber reinforced concrete, ITU-NOVA (Bar-Chip), **Project Coordinator**, 2019-2020.*

*-Out-of-plane seismic performance assessment of infill walls without reinforced concrete lintels, ITU-NOVA (Isiklar), **Project Coordinator**, 2020-2021.*

*-In-plane seismic performance assessment of infill walls made with Rigips Dry Boards, ITU-NOVA (Saint Gobain Rigips), **Project Coordinator**, 2022-2022.*

*-Seismic housing resilience in Turkey: Sustainable strategies for seismic retrofitting decisions, Global Challenges Research Fund Networking Grants, The Academy of Medical Sciences, The British Academy, Royal Academy of Engineering, the Royal Society, **Lead Overseas Applicant**, 2021.*

*-Investigation of out-of-plane response of infill walls with Murfor reinforcement-Bekaert, ITU-NOVA, **Project Coordinator**, 2020-2021.*

*-Rapid assessment of collapse risk of existing buildings-Ministry of Environment and Urbanisation, İTÜ Nova, **Project Coordinator**, 2020.*

*-Seismic Performance of Sub-standard Columns Subjected to High Axial Stresses and Long Term, TUBITAK Project, 119M623, **Project Coordinator**, 2019-2022.*

*-Earthquake Performance of Substandard RC Members and Use of New Materials for Enhancement of Structural Performance, TUBITAK 2521 – Pakistan Bilim ve Teknoloji Bakanlığı ile İşbirliği Programı, 118M261, **Project Coordinator**, 2019-2021.*

*-Investigation of Earthquake Performance of Bursa Historical Minarets with Analytical and Experimental Approaches and Obtaining Vulnerability Curves, AFAD-UDAP Project, UDAP-G-18-07, **Project Coordinator**, 15.12.2018-15.06-2020.*

*-Seismology and Earthquake Engineering Research Infrastructure Alliance for Europe-SERA; Infills and Masonry Structures Protected by Deformable Polyurethanes in Seismic Areas (INMASPOL), **Partner No:2, Coordinator**, 2018-2019.*

*-Rapid Seismic Risk Assessment for Substandard Buildings and A Framework for Post-Earthquake Disaster Management, TUBITAK-RCUK International Bilateral Research Project, 216M379, **Project Coordinator**, 2017-2020.*

*-Parametric Investigation of Chemical Anchors, supported by HILTI, **Project Coordinator**, 2016-2017.*

*-Demonstration of Efficiency of FRP Retrofitting on Full-Scale Sub-Standard RC Buildings through Reversed Cyclic Collapse Tests, supported mainly by DowAksa and Yalova Governership, **Project Coordinator**, 2016.*

*-Use of Recycled Concrete in New Buildings, TUBITAK-NSF Project, 115M029, **Project Coordinator**, 2015-2016.*

-Pilot Studies on Monitoring, Assessment and Rehabilitation of Historical Structures in Istanbul towards Risk Reduction,

	<p>ISTKA-2013/AFT, Istanbul Development Agency, 2014-2015. Project Advisor.</p> <p><i>-Assessment of Seismic Performance of Existing Buildings with Full-Scale Tests, ISTKA-2012/AFT, Istanbul Development Agency, 2013-2014. Project Coordinator.</i></p> <p><i>-Retrofitting of Exterior Beam-Column Joints using CFRP Prestressed Sheets, KFUPM Internal Research Grant, Consultant (PI, M. Baluch), 2011-2013 (24 months).</i></p> <p><i>-Seismic Retrofit of Typical Wall Systems in Traditional Structures in the Kingdom, KFUPM Internal Research Grant, Consultant (PI, A.H. Al-Gadhib), 2010-2013 (36 months).</i></p> <p><i>-EU-FP-7, Series Project, Seismic Engineering Research Infrastructures for European Synergies, Project Leader in ITU, 2009-2013.</i></p> <p><i>-Retrofit of beam-column connections using innovative materials, TUBITAK Project, 106M054, Project Coordinator, 2006-2009.</i></p> <p><i>-Repair and Strengthening of Damaged and Undamaged Reinforced Concrete Members with Inadequate Lateral Reinforcement and/or Lap Splice Deficiency, TUBITAK Project, ICTAG-I585, Project Coordinator, 2002-2004.</i></p> <p><i>-Development of Retrofitting Techniques for Existing Structures, TUBITAK Project, ICTAG-I575, Researcher, 2001-2004.</i></p>
<p>Proposed Project Idea or Area of Interest: (If applicable, please briefly outline a concept idea, the problem you aim to address, or your specific area of interest.)</p>	<ul style="list-style-type: none"> -Light-weight seismic resistant structures -Low-damage structures -Repairable damage seismic performance -Innovative materials and systems for seismic resistance of new and existing buildings
<p>Potential Contributions to Projects</p>	<ul style="list-style-type: none"> X Scientific / technical research X Methodology development X Modelling / simulation X Data analysis / artificial intelligence X Experimental studies / testing X Pilot / demonstration activities X Socio-economic analysis / policy contribution

	<p>X Education, dissemination and impact activities</p> <p><input type="checkbox"/> Other (please specify):</p>
<p>Preferred Role in Consortia</p>	<p>X Coordinator</p> <p>X Partner</p>
<p>Programmes and Calls of Interest (Please indicate the programme(s) you are interested in and, if possible, specify the call identifier and/or title.)</p>	<p>X Horizon Europe Clusters</p> <p>X Erasmus+</p> <p>X Digital Europe</p> <p>X EIT (HEI / KIC, etc.)</p> <p>X MSCA</p> <p>X ERC</p> <p><input type="checkbox"/> Other (please specify):</p> <p>Specific call identifier and/or title:</p>
<p>Additional Notes (Please provide any additional information or specific remarks you would like to share with the International Projects Office.)</p>	