

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	ASSOC.PROF. DR. HACI ABDULLAH TASDEMIR (Head-In Charge-HIC) DR. EMIN ORHUN BASTEKELI (Contact Researcher-CR)
	Surname	
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Laboratory /Department /Institute /Centre /	Name	TRIBOLOGY AND LASER TECHNOLOGIES LAB.
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>		Our lab includes 5 people; Chief In Charge, Assoc.Prof.Dr.Abdullah Tasdemir, Main Researcher, Dr.Orhun Bastekeli Researcher(PhD.(C)) Buse Ortac Bastekeli, Researcher Safa Ünal, Mustafa Şengül
	Address	Gumussuyu Mah.Inonu Cad.No:65 Istanbul Technical Universtiy-Mechanical Engineering Dept.
Research Area <i>(Please provide 5–10 keywords that best describe your research areas and expertise.)</i>		* Tribology , Boundary lubrication, Lubricant additives, Hard Coatings, Super-Low Friction, * Surface Engineering , (Modifying surfaces for optimizing friction, lubrication, heat transfer performances) * Manufacturing With Direct Laser Beam (Milling, Turning, Welding, Polishing, Sintering)
Please list your relevant previous projects, indicating the programme, project name, year and role.		* <u>Elmas Benzeri Karbon kaplamaların sentetik yağlar ve yağ katkı ürünleri ile sınır yağlama koşullarında sürtünme ve aşınma davranışlarının incelenmesi (İTÜ BAP birimi, Safa Ünal, Hacı Abdullah Taşdemir 2025)</u> * <u>Lazer tekstürleme yöntemiyle talaşlı imalatta kullanılan tungsten karbür malzemelerin tribolojik ve mekanik özelliklerinin iyileştirilmesi (İTÜ BAP, Emin Orhun Baştekeli, Buse Ortaç Baştekeli, Hacı Abdullah Taşdemir, Fatih Hayati Çakır, 2024)</u> * <u>Freze takımlarının tekstürizasyon ile aşınma ömürlerinin iyileştirilmesi(İTÜ İKİP-L, Hacı Abdullah Taşdemir,M. Furjan (nanjing university of aeronautics and astronautics nuaa-çin,)Emin Orhun Baştekeli, Buse Ortaç Baştekeli)</u>

	<p>* <u>lazer ile tekstürize edilmiş yüzey geometrisine sahip kendinden yağlamalı yüksek performanslı matkap ucu (kym) geliştirilmesi</u> (TÜBİTAK -1001 , Hacı Abdullah Taşdemir, Buse Ortaç Baştekeli Emin Orhun Baştekeli,)</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>	<p>Our Lab's Area of Interest topics have same importance which can be briefly described as;</p> <p>*Surface Texturization For Wetting/Coating Capabilities (Hydrophobia, Lubrication, Coating Integration etc..)</p> <p>*Surface Texturization For Minimum/Maximum Friction Performance(Cutting Tools, Engine Components)</p> <p>*Surface Texturization For Heat Transfer(Boilers,Fins etc..)</p> <p>*Laser Micro Manufacturing(Micro channel milling, micro part turning, welding/brazing, sintering and polishing)</p>
<p>Potential Contributions to Projects</p>	<p><input checked="" type="checkbox"/> Scientific / technical research</p> <p><input checked="" type="checkbox"/> Methodology development</p> <p><input checked="" type="checkbox"/> Modelling / simulation</p> <p><input checked="" type="checkbox"/> Data analysis / artificial intelligence</p> <p><input checked="" type="checkbox"/> Experimental studies / testing</p> <p><input type="checkbox"/> Pilot / demonstration activities</p> <p><input type="checkbox"/> Socio-economic analysis / policy contribution</p> <p><input type="checkbox"/> Education, dissemination and impact activities</p> <p><input type="checkbox"/> Other (please specify):</p>
<p>Preferred Role in Consortia</p>	<p><input checked="" type="checkbox"/> Coordinator</p> <p><input checked="" type="checkbox"/> 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><input checked="" type="checkbox"/> Horizon Europe Clusters</p> <p><input checked="" type="checkbox"/> Erasmus+</p> <p><input checked="" type="checkbox"/> Digital Europe</p> <p><input checked="" type="checkbox"/> EIT (HEI / KIC, etc.)</p> <p><input checked="" type="checkbox"/> MSCA</p> <p><input checked="" type="checkbox"/> 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>	