



## RESEARCH LAB TECHNICAL FICHE

<b>Name of research lab hosting the group and address:</b>	TUBITAK Marmara Research Center Energy Institute P.O. Box 21 41470 Gebze / Kocaeli Turkey
<b>Name of researchers involved:</b>	<u>Nilüfer İlhan</u> (Hydrogen Demonstration Park) <u>Sezer Köylü Tokgöz and Berrin Bay</u> (Coal and Biomass Combustion and Gasification Technologies) <u>Evren Günen</u> (Fuel Cell Technologies) <u>Ali Önder Biliroğlu</u> (Vehicle Technologies)
<b>Field of activity of the research laboratory</b>	<p><b>Energy Institute (EI)</b> provides and develops technological knowledge into practical applications in advanced and innovative energy and power electronics/transportation technologies areas. It forms a bridge between fundamental research and commercial &amp; industrial applications. Below is the main research areas:</p> <ul style="list-style-type: none"> <li>•Fuel Cell Technologies (PEMFC, DSBHFC)</li> <li>•Hydrogen Production (NG and Diesel) and Purification Technologies</li> <li>•Combustion, Gasification and Gas Cleaning Technologies</li> <li>•Fuel Technologies</li> <li>•Power Electronics Technologies</li> <li>•Vehicle Technologies</li> <li>•Battery Technologies</li> </ul>
<b>Description of the research laboratory</b>	<p>In February 1996, the Energy Systems Department located at TUBITAK Marmara Research Center became jointly affiliated with the Environmental Engineering Department, and together the two departments formed the Energy Systems and Environmental Research Institute (ESERI). Since this date, ESERI's two strategic business units - Energy Technologies and Environmental Technologies - completed several important projects, developed their infrastructure, and expanded their knowledge base, experience, and networks on an international level. On October 3, 2004, in accordance with the decision of TUBITAK's Science Committee, the two strategic business units were separated, and the Energy Technologies strategic business unit became the Energy Institute (EI).</p> <p><u>Laboratories:</u></p>

	<p>Fuel Cells Technologies Laboratory  Hydrogen Technologies Laboratory  Fuel Technologies Laboratory  Coal And Biomass Combustion And Gasification Laboratory  Power Electronics Laboratory  Vehicle Technologies Laboratory  Battery Technologies Laboratory  Advanced Energy Technologies Laboratory  Molten Carbonate Fuel Cell Laboratory</p> <p><u>EU funded projects:</u></p> <ul style="list-style-type: none"> <li>• <b>CONTEX</b> Effects of <u>CONT</u>aminants in biogenous fuels on MCFC catalyst and stack compo-nent degradation and lifetime and EXtraction strategies</li> <li>• <b>EU-DEEP</b> (6th FP) The Birth of A European Distributed Energy Partnership That Will Help The Large-Scale Implementation of Distributed Energy Resources in Europe</li> <li>• <b>NATURAL-HY</b> (6th FP) Preparing for the hydrogen economy by using the existing natural gas system as a catalyst.</li> <li>• <b>MC-WAP</b> (6th FP) Molten-Carbonate Fuel Cells For Water Borne Applications</li> <li>• <b>CASES</b> (6th FP) Cost Assessment Sustainable Energy Systems</li> <li>• <b>TERMISOL</b> (6th FP) New Low Emissivity and Long-lasting Paints for Cost Effective Solar Collectors</li> <li>• <b>HYPROSTORE</b> (6th FP) Improving of the S&amp;T Research Capacity of TUBITAK MRC IE in the Fields of Hydrogen Technologies</li> <li>• <b>BIGPOWER</b> (6th FP) Improving of the S&amp;T Research Capacity of TUBITAK MRC IE in the Fields of Integrated Biomass Gasification with Power Technologies</li> <li>• <b>NETBIOCOF</b> (6th FP) Integrated European Network For Biomass Co-Firing</li> </ul> <p><u>For other international and national projects and activities:</u></p> <p><a href="http://www.mam.gov.tr/english/EE/index.html">http://www.mam.gov.tr/english/EE/index.html</a></p>
<p><b>Name of person responsible for the students within the organisation and contact details:</b></p>	<p>Gülnihal Ergen  <a href="mailto:gulnihal.ergen@tubitak.gov.tr">gulnihal.ergen@tubitak.gov.tr</a>  Mobile: +90 535 397 23 62</p> <p>Gülniyaz Tahralı -Researcher  <a href="mailto:gulniyaz.tahrali@mam.gov.tr">gulniyaz.tahrali@mam.gov.tr</a></p>
<p><b>Available facilities:</b></p>	<p><input checked="" type="checkbox"/> Canteen (Lunch-a la carte, dinner-a la carte)  <input checked="" type="checkbox"/> Campus  <input checked="" type="checkbox"/> Accommodation (Guest house booking will be done, breakfast and dinner are included in the price)  <input checked="" type="checkbox"/> Transport services (<u>only within the campus</u>)  <input checked="" type="checkbox"/> others (internet cafe at the guest house)</p> <p>The guesthouse is called “TUSSIDE” and booking will be done for the</p>

	<p>students. For the address and information about the facilities please see: <a href="http://www.tusside.gov.tr/eng/contact.html#">http://www.tusside.gov.tr/eng/contact.html#</a></p> <p>The flight details of the students will be given to airport officers and taxis will be waiting to drive them to TUSSIDE. That would cost around 50-70 Euros.</p> <p>A shuttle from TÜSSİDE to labs will be available during the week.</p>
<b>Number of students expected:</b>	4
<b>Languages spoken:</b>	English
<b>Lab “newsroom”</b>	A meeting room will be prepared as the newsroom. Wireless internet accesses is available and students may bring their own notebook PCs.