

**Sustainable Water Management
Doctoral Programme (Water4All)**



METU

İTÜ



Title of the PhD Project	Sponge Istanbul: Nature-based solutions for urban water management
Acronym	SpongeIST
Research Fields of the Project	Urban and Regional Planning, Environmental Engineer, Management studies
Keywords	Spatial planning, urban water management, ecological planning, climate change
Host Institution, Department and Campus Location	Istanbul Technical University, Department of Urban and Regional Planning, Taskisla Campus Taksim İstanbul
PhD Awarding Institution and Graduate Programme	Istanbul Technical University, Graduate School, Urban and Regional Planning PhD Programme
Name and Affiliation of Main Supervisor	Prof. Dr. Aliye Ahu Gülümser (ITU)
Name and Affiliation of Co-Supervisors	Assoc. Prof. Dr. Başak Demireş Özkul (ITU) Assoc. Prof. Dr. Mahmut Altınbaş (ITU)
Research Environment and Infrastructure	PhD candidates will be expected to work in an interdisciplinary environment with access to a variety of database on water resources and spatial planning of Istanbul in Environment and Urbanisation Application and Research Center of ITU.
Scientific Context of the Project	The project titled " Sponge Istanbul: Nature-based solutions for urban water management (SpongeIST) " aims to reduce the impacts of climate change via the implementation of sponge city concept. Taking the advantage of water resources and the challenge of water scarcity of Istanbul, dedicated PhD student under the supervision of relevant experts in the field will provide a guideline on the transformation of Istanbul into a sponge city. In order to do that, the project derive a

**Sustainable Water Management
Doctoral Programme (Water4All)**



METU

İTÜ



	<p>multidisciplinary approach integrating spatial data analytics, technology, and nature-based solutions via ecological planning. The Project will offer policy recommendation through pilot studies to foster sustainable long-term solutions for the main challenges of the city.</p> <p>The scientific context of the Project comprises a multidisciplinary approach that integrates insights from multidimensional and multidisciplinary approach. Mainly based on environmental engineering and spatial planning fields vis a vis the implemented projects to address one of the recent innovative approaches to a complex and interconnected challenge of Istanbul “water scarcity”.</p>
Brief Workplan	<p>Year 1: Methodological Framework</p> <p>Year 2: Understanding the existing situation</p> <p>Year 3: Pilot Studies</p> <p>Year 4: Policy recommendation and dissemination</p>
Innovative Aspects of the Project	<p>The implementation of Sponge City concept is a novel approach for Istanbul’s spatial planning. Although several projects exist but not yet fully implemented about the reuse of water, this project will offer steps to be taken to reach the transformation of Istanbul into a sponge city with nature-based solutions.</p>
Training Opportunities of the Project	<p>Training will be inside the facilities of the ITU Campuses.</p>
Interdisciplinary Aspects	<p>NA</p>
Intersectoral Mobility	<p>TBD</p>
<input type="checkbox"/> Short Visit	



<input type="checkbox"/> Secondment	
Intersectoral Mobility	TBD
<input type="checkbox"/> Short Visit	
<input type="checkbox"/> Secondment	
International Academic Secondment	TBD

Main Supervisor										
Brief CV	<p>Prof. Dr. Aliye Ahu GÜLÜMSER</p> <p>E-mail: gulumser@itu.edu.tr</p> <p>Academic Degrees</p> <table><tr><td>Ph.D.</td><td>Urban and Regional Planning, Istanbul Technical University, Türkiye</td><td>2009</td></tr><tr><td>M.Sc.</td><td>Regional Planning, Istanbul Technical University, Türkiye</td><td>2004</td></tr><tr><td>B.Sc.</td><td>Urban and Regional Planning, Istanbul Technical University, Türkiye</td><td>2003</td></tr></table> <p>Professional Networks</p> <p>Google Scholar: https://scholar.google.com/citations?user=oHzorgoAAAAJ&hl=en</p> <p>ResearchGate: https://www.researchgate.net/profile/Aliye-Gueluemser</p> <p>Scopus: https://www.scopus.com/authid/detail.uri?authorId=36237859100</p> <p>ORCID:</p>	Ph.D.	Urban and Regional Planning, Istanbul Technical University, Türkiye	2009	M.Sc.	Regional Planning, Istanbul Technical University, Türkiye	2004	B.Sc.	Urban and Regional Planning, Istanbul Technical University, Türkiye	2003
Ph.D.	Urban and Regional Planning, Istanbul Technical University, Türkiye	2009								
M.Sc.	Regional Planning, Istanbul Technical University, Türkiye	2004								
B.Sc.	Urban and Regional Planning, Istanbul Technical University, Türkiye	2003								

	https://orcid.org/0000-0001-9722-5131									
Co-supervisors										
Brief CV	<p>Assoc. Prof. Dr. Mahmut ALTINBAŞ</p> <p>E-mail: altinbas1@itu.edu.tr</p> <p>Academic Degrees</p> <table><tr><td>Ph.D.</td><td>Environmental Engineering, Istanbul Technical University, Türkiye</td><td>2007</td></tr><tr><td>M.Sc.</td><td>Environmental Engineering, Istanbul Technical University, Türkiye</td><td>2000</td></tr><tr><td>B.Sc.</td><td>Environmental Engineering, Istanbul Technical University, Türkiye</td><td>1997</td></tr></table> <p>Professional Networks</p> <p>Google Scholar: https://scholar.google.com/citations?user=xqbpVMYAAAAJ&hl=en&oi=ao</p> <p>ResearchGate: https://www.researchgate.net/profile/Mahmut-Altinbas</p> <p>Scopus: https://www.scopus.com/authid/detail.uri?authorId=23003289800</p> <p>ORCID: https://orcid.org/0000-0003-3946-741X</p>	Ph.D.	Environmental Engineering, Istanbul Technical University, Türkiye	2007	M.Sc.	Environmental Engineering, Istanbul Technical University, Türkiye	2000	B.Sc.	Environmental Engineering, Istanbul Technical University, Türkiye	1997
Ph.D.	Environmental Engineering, Istanbul Technical University, Türkiye	2007								
M.Sc.	Environmental Engineering, Istanbul Technical University, Türkiye	2000								
B.Sc.	Environmental Engineering, Istanbul Technical University, Türkiye	1997								
Brief CV	<p>Assoc. Prof. Dr. Başak DEMİREŞ ÖZKUL</p> <p>E-mail: demiresozkul@itu.edu.tr</p> <p>Academic Degrees</p> <table><tr><td>Ph.D.</td><td>Urban and Regional Planning, UCL, United Kingdom</td><td>2011</td></tr><tr><td>M.Sc.</td><td>City Planning, Massachusetts Institute of Technology, USA</td><td>2001</td></tr><tr><td>B.Sc.</td><td>City and Regional Planning Istanbul Technical University, Türkiye</td><td>1998</td></tr></table> <p>Professional Networks</p> <p>Google Scholar: https://scholar.google.com/citations?user=YpVVTk8AAAAJ&hl=en</p>	Ph.D.	Urban and Regional Planning, UCL, United Kingdom	2011	M.Sc.	City Planning, Massachusetts Institute of Technology, USA	2001	B.Sc.	City and Regional Planning Istanbul Technical University, Türkiye	1998
Ph.D.	Urban and Regional Planning, UCL, United Kingdom	2011								
M.Sc.	City Planning, Massachusetts Institute of Technology, USA	2001								
B.Sc.	City and Regional Planning Istanbul Technical University, Türkiye	1998								

**Sustainable Water Management
Doctoral Programme (Water4All)**



METU

İTÜ



	<p>ResearchGate: https://www.researchgate.net/profile/Basak-Demires-Ozkul</p> <p>Scopus: https://www.scopus.com/authid/detail.uri?authorId=56556946100</p> <p>ORCID: https://orcid.org/0000-0002-6650-7643</p>
--	---