

Research, Informatics and Graduate Studies

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PhD Position in Environmental Engineering (GS-2019011) – Group of Prof. Varenyam Achal

The Environmental Engineering Program (group of Dr. Achal) is looking for two PhD students to conduct experimental research project related to bioremediation of contaminants and biocementation for sustainable construction. Contract duration: 3 + 1 years.

Project Details

The Laboratory of Environmental Sustainability led by Dr. Achal focuses on elucidating bioremediation processes in treating various contaminants (both organics and inorganics) from water and soil. In addition, the key aim of this lab is also to provide environmental sustainability by reducing environmental load caused by Ordinary Portland Cement. The research provides solution by looking into alternative cement from plants and microbes, known as 'biocement'.

The overall goal of project is to elucidate bio-mediated solution for contaminants from water and soil, and biocementation for environmental and urban sustainability, where research will involve *from practice, for practice, and beyond practice*. Our laboratory is equipped with state-of-the-art instrumentation facilities to carryout basic to advanced bioremediation and biocementation mechanisms and processes. We work in a collaborative international environment.

Keywords

Heavy metals, organics, environmental microbiology, bioremediation, biocement, concrete, urban sustainability.

Selection Criteria

- Master degree in Environmental Engineering or related fields (essential)
- Strong background in microbiology, geotechnical or civil engineering (essential)
- Vast experiences in using instruments such as ICP-MS, SEM-EDS, XRD, UTM, and FTIR (essential)
- Strong interest to work temporarily in overseas labs (essential)
- Good communication skills and good command of English (essential)
- Ability to work independently as well as in a team environment (essential)
- Ability to author scientific reports and co-author scientific publications (essential)
- Published at least three impactful research papers in SCI journal(s) from previous research (essential)
- The PhD candidate must fulfill the requirements for admission to the Technion Graduate School and needs to comply with its regulations leading to the PhD degree: <https://graduate.technion.ac.il/en/prospective-students/>

Program

Environmental Science and Engineering Research Group

Research Area

Bioremediation of Contaminants and Biocementation for Sustainable Construction

Contact

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[Web Page Link](#)

Application Deadline

1 March 2020

Date Posted

9 December 2019

Location

Guangdong Technion – Israel Institute of Technology (GTIIT), China & Technion-Israel Institute of Technology, Israel.

[Fees & Finance](#)

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