Nutrient Energy Smart Lab

welcome on board

Positions Openings in N.E.S. Lab

Graduate Student Position

Applications are encouraged from dedicated, ambitious students with an excellent educational background in environmental engineering, chemical engineering, microbiology, or a closely related field, preferably (but not required) with hands-on experience in bioreactor operation, granular sludge cultivation, microbial toxicity studies, and/or automation control and modeling. Excellent students will join the N.E.S. lab as graduate assistant. Students with U.S. citizenship, nationality, or permanent residency are strongly encouraged to apply for prestigious fellowships such as the NSF GRFP (more details and deadline please see http://www.nsfgrfp.org/).

Undergraduate Researcher Position

Undergraduate students who are interested in the research topics of nutrient removal/recovery from wastewater, sustainable energy from wastes, and/or automation control for smart bioreactor are always encouraged. Please contact Dr. Li for the opportunities in the N.E.S. Lab.

Academic and Career Supports

A strong support will be provided to the students who join N.E.S. Lab in both academic- and career-track. Different training/workshops will be available for students to acquire skills and knowledge in diverse fields. A weekly research meeting supervised by Dr. Li will be a great platform to discuss the research plan and share the ideas and experience. Students are encouraged to present their work in academic conference in both oral and poster forms. The N.E.S. Lab aims to create a supportive, inspiring, and welcome atmosphere for all faculties, students, visiting scholars, and staffs.

Special Instructions to Applicants

Interested students should send Dr. Li (email: gli2019@umd.edu) a cover letter highlighting their relevance experience and research interests, and curriculum vitae.

About Dr. Guangbin Li

Contact
Email: gli2019@umd.edu

Education:
Ph.D. in Environmental Engineering, University of Arizona, 2012-2016

M.S. in Environmental Engineering, University of Arizona, Harbin Engineering University, 2009-2012

B.S. in Environmental Engineering, Harbin Engineering University, 2005-2009

Biography:
Guangbin Li joins the Department of Civil & Environmental Engineering at the University of Maryland, College Park (UMD), as an assistant professor in 2019. Prior to joining UMD, he was a research assistant professor at University of Arizona (UofA). His research interests include sustainable biological water/wastewater treatment, nutrient removal/recovery, (bio)transformation and fate of hazardous contaminants, microbial toxicity, and environmental chemistry. He holds a BS from Harbin Engineering University (HEU) in China, MS from HEU and UofA, and Ph.D. from UofA, all in the major of Environmental Engineering. Since 2014, he has authored 13 peer reviewed publications focusing on various aspects of biological nitrogen removal processes, including nitrification-denitrification and anaerobic ammonium oxidation (Anammox), and (bio)transformation of organic contaminants.

About N.E.S. Lab

The N.E.S. Lab will target the water-energy-food (WEF) nexus by ensuring a supply of clean water, renewable energy, and safe food to meet community needs for the foreseeable future, while taking advantage of smart technologies, including automation control and artificial intelligence (AI).

How to join N.E.S. lab

For up-to-date information and detail, please visit website: https://cee.umd.edu/graduate/prospective-students/admissions)

Spring:

September 1 is the preferred deadline for best consideration for financial aid.

September 18 is the final deadline for all international students to apply. This includes F-1 and J-1 students currently studying elsewhere in the United States.

October 2 is the final deadline for U.S. citizens and permanent residents to apply.

Fall:

January 15 is the preferred deadline for best consideration for financial aid. Early Ph.D. applicants may receive an application fee waiver. (Please be aware that January 15th is also the deadline for being eligible in Flagship Fellowship nomination. Flagship Fellowship is open to all applicants, international and domestic. Detail: https://gradschool.umd.edu/funding/student-fellowships-awards/flagship-fellowship)

February 1 is the final deadline for all international students to apply. This includes F-1 and J-1 students currently studying elsewhere in the United States.

January 15 is the final deadline for U.S. citizens and permanent residents to apply.

M.S.:

3.0 minimum GPA from a 4.0 scale

Overall GRE score of 306 with a minimum score of 156 in the quantitative section

Ph.D:

3.5 minimum GPA from a 4.0 scale

Overall GRE score of 309 with a minimum score of 159 in the quantitative section

Information and resources required in the application include:

The $75 application fee

Statement of purpose

Three letters of recommendation from an official institutional email address submitted electronically through the application

Official original transcripts from all colleges or universities—and English translations for those in other languages—previously attended submitted through the application

GRE general test scores using the institution code 5814 and leaving at least 2-4 weeks for receipt

Resume/CV

For international student, submit proof of English proficiency:

IBT-TOEFL: 100 (Speaking 22, Listening 24, Reading 26, Writing 24); For the University of Maryland to receive your TOEFL score, please use the reporting code 5814.

IELTS: 7 (Listening 7, Reading 7, Writing 7, Speaking 6.5) The University of Maryland downloads IELTS scores that have been transmitted to our e-download account. IELTS test takers should contact their IELTS test center directly to request electronic test scores be sent to the following IELTS e-download account:

University of Maryland - The Graduate School

The Graduate School

2123 Lee Building

College Park

Maryland, 20742

Please note: The Graduate School will not accept paper IELTS test report forms.

PTE: 68. PTE test takers can send their score reports to the University of Maryland through their Pearson Account.

(Exempt from Submitting TOEFL, IELTS or PTE Scores, please visit the website: https://gradschool.umd.edu/admissions/english-language-proficiency-requirements)

Financial support

Graduate Assistantships (policy details, please see the website: http://apps.gradschool.umd.edu/Catalog/policy.php?assistantship-policies)

Teaching Assistants (TAs): International Teaching Assistants (ITAs) who are non-native speakers of English are required to undergo an evaluation of their spoken English abilities by the Maryland English Institute (MEI). Full details regarding the ITA Evaluation can be found on the Maryland English Institute website (http://marylandenglishinstitute.com/wpdir/english-programs/international-teaching-assistants/).

Research Assistants (RAs): Contact Dr. Li for details.

Student scholarship and fellowship:
https://www.financialaid.umd.edu/scholarships/merit.html

Other student financial aid: https://www.financialaid.umd.edu/

About UMD

Founded in 1856, the University of Maryland, College Park (UMD is the flagship institution of the University System of Maryland. It is a public research university located in the city of College Park in Prince George's County, Maryland, approximately 4 miles (6.4 km) from the northeast border of Washington, D.C. UMD is ranked for 50th in the 2018 U.S. News and World Report rankings of "Global Universities" across the world.

About Dept. of Civil and Environmental Engineering

#22 Graduate Engineering in the U.S. News and World Report 2018 Best Engineering Graduate Programs

#38 in Environmental Engineering program in the U.S. News and World Report 2016

With **$24.8 million** in research expenditures in 2016, our department ranks among the top in annual expenditures among civil and environmental engineering programs nationwide,

The Environmental Engineering Laboratories are equipped for state-of-the-art analyses of environmental samples related to the fate and processes of organic pollutants, inorganic pollutants, and environmental microbiology and are supported by a laboratory manager. Several instruments are available to UMD users from other departments (https://www.enviroeng.umd.edu/).

Life at UMD

Residential life: The City of College Park is comprised of over 30,000 residents and situated just minutes from the nation's capital, Washington, D.C. Therefore, be prepared to enjoy the tons of landmarks, museums, arts, and sports!

Transportation: The university is accessible through the three airports (Ronald Reagan Washington National Airport, Washington Dulles International Airport, and Baltimore-Washington International Thurgood Marshall Airport). A free shuttle service, known as Shuttle-UM, is available for UMD students. The university is served by an off-campus stop on the Washington DC Metro Green Line called College Park – University of

Maryland. A Shuttle-UM bus (Route 104) arrives at the metro station every five minutes during fall and spring semesters (every ten minutes during the summer) to bring all visitors to campus (stopping in front of the Stamp Student Union). The DC Metrobus and the Prince George's County TheBus bus services also stop on campus. Beginning in early 2012, Prince George's County TheBus services for Route1Ride (Route 17) were made free of charge to all University of Maryland students and staff, providing service on Route 1 from the Washington, D.C. border to the IKEA in College Park, with a stop at the College Park–University of Maryland Metro station.

Sports: The university sponsors varsity athletic teams in 20 men's and women's sports, including football, basketball, and soccer et al.

Apartment and housing:

On-campus: http://reslife.umd.edu/housing/graduate/

Off-campus: http://och.umd.edu/OCH/Default.aspx

Food: Dining plan (details see website: http://dining.umd.edu/). The dining map is available at http://dining.umd.edu/wp-content/uploads/2018/05/DiningServicesMap-3.pdf