Varun Srinivasan, PhD

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EDUCATION

2012-2017	Ph.D. in Civil Engineering, University of Massachusetts-Amherst
2010-2012	M.S. in Environmental Engineering, University of Massachusetts-Amherst
2006-2010	B.Tech (Bachelor of Technology) in Industrial Biotechnology, Anna University, Chennai, India

APPOINTMENTS

2017 - Present	Postdoctoral Research Associate, Civil and Environmental Engineering, Northeastern University

PEER-REVIEWED PUBLICATIONS

1. Stauch-White, K., **Srinivasan, V.N**., Camilla Kuo-Dahab, W., Park, C., Butler, C.S., 2017. The role of inorganic nitrogen in successful formation of granular biofilms for wastewater treatment that support cyanobacteria and bacteria. AMB Express 7. doi:10.1186/s13568-017-0444-8
2. **Srinivasan, V.N.,** Butler, C.S., 2017. Ecological and Transcriptional Responses of Anode-Respiring Communities to Nitrate in a Microbial Fuel Cell. Environ. Sci. Technol. acs.est.6b06572. doi:10.1021/acs.est.6b06572
3. Castro, C.J., **Srinivasan, V**., Jack, J., Butler, C.S., 2016. Decentralized wastewater treatment using a bioelectrochemical system to produce methane and electricity. J. Water, Sanit. Hyg. Dev. 6, 613–621. doi:10.2166/washdev.2016.190
4. **Srinivasan, V**., Weinrich, J., Butler, C., 2016. Nitrite accumulation in a denitrifying biocathode microbial fuel cell. Environ. Sci. Water Res. Technol. 2, 344–352. doi:10.1039/C5EW00260E
5. Hagemann, M., Park, M., **Srinivasan, V**., Reckhow, D.A., Lavine, M., Stanford, B.D., Park, M.-H., 2016. Co-occurrences of EDCs / PPCPs in surface water using Chemometrics. Am. Water Work. Assoc. 205–220.

GRANTS/PROPOSALS

Gu, A., Bott, C., McQuarrie, J., Stintson, B., deBarbadillo, Goodwin, J., Dombrowski, P., Barnard., J., **Srinivasan, V**., et al. "Combining Nitrite-Shunt/Anammox Processes With Side-stream EBPR Process For Simultaneous and Sustainable Nitrogen and Phosphorus Removal", Water Environment & Reuse Federation.	Funded

RESEARCH EXPERIENCE

Postdoctoral Research Associate, Department of Civil and Environmental Engineering, Northeastern University (2017- Present)
Advisor- Dr. April Gu

Projects

- Elucidating the Microbial Ecology of Side-Stream Enhanced Biological Phosphorus Removal (S2EBPR)
- Developing a Flow Cytometric Method to Characterize Polyphosphate Accumulating Organisms

- Combining Nitrite-Shunt/Anammox Processes With Side-stream EBPR Process For Simultaneous and Sustainable Nitrogen and Phosphorus Removal

Graduate Research Assistant, Department of Civil and Environmental Engineering, University of Massachusetts-Amherst (2012- 2017)
Advisor- Dr. Caitlyn Butler

Projects

- Microbial Competition and Ecology in Bioelectrochemical Systems.
- "ElectroSeptic" Wastewater Power Generation System (Collaborator: FTL Labs Corporation, Funding: AIR FORCE SBIR).

Graduate Research Assistant, Department of Civil and Environmental Engineering, University of Massachusetts-Amherst (2010- 2012)

Advisor- Dr. David Reckhow

Projects

- Detection and Analysis of Halobenzoquinones in Drinking Water Distribution Systems in the United States of America and HBQ Formation- Routes, Rates and Precursors (Funding: Water Research Foundation #4242).
- Developing a Watershed-Level Protocol for Choosing Indicators for EDCs/PPCPs using Analytical Tools and Chemometrics (Funding: Water Research Foundation #4260).

Undergraduate Research Assistant, Centre for Biotechnology, Anna University, Chennai, India (2009-2010)
Advisor- Dr. P. Gautam

Projects

- Microbial Fuel Cells and Amplification of Exoelectrogenesis using the Urey-Miller Setup.

CONFERENCE PRESENTATIONS (Presenter is in bold)

1. **Srinivasan, V**., Tooker, N., Li, G., Barnard, J., Bott, C., Dombrowski, P., Schauer, P., Menniti, Adrienne, Onnis-Hayden, A., Pinto, A., Gu, A. "A Full-Scale Pilot Side-by-Side Comparison Reveals Microscale Differences in the Microbial Ecology of Conventional and Side-Stream EBPR systems." Water Environment Federation Nutrient Removal and Recovery, Raleigh, NC; 2018.
2. Tooker, N., Li, G., **Srinivasan, V**., Barnard, J., Bott, C., Dombrowski, P., Schauer, P., Menniti, A., et al. "S2EBPR Practices and Fundamentals – Rethinking and Reforming Enhanced Biological Phosphorus Removal (EBPR)." Water Environment Federation Nutrient Removal and Recovery, Raleigh, NC; 2018.
3. **Srinivasan, V**., Butler, C. "Ecological and Transcriptional Responses of Anode-Respiring Communities to Nitrate in a Microbial Fuel Cell." AEESP Research and Education Conference, Ann-Arbor, MI; 2017. *Poster Presentation*
4. **Srinivasan, V**., Butler, C. "Exploring dynamics between denitrifiers and anode-respiring bacteria in bioelectrochemical biofilms." 250th American Chemical Society National Meeting & Exposition, Boston, MA; 2015.
5. Srinivasan, V., **Butler, C**. "Evaluating the Robustness of Anode-Respiring Biofilms: A Battle for Acetate Between Exoelectrogens and Denitrifiers." AEESP Research and Education Conference, New Haven, CT; 2015.

6. **Srinivasan, V**., Butler, C. "Evaluating the Robustness of Anode-Respiring Biofilms: Understanding the Dynamics of Interactions between Anode-Respiring and Denitrifying Bacteria." New England Graduate Student Water Symposium, University of Massachusetts-Amherst, MA; 2015.
7. **Srinivasan, V**., Butler, C. "Competition for Electron Donors in Anode-Respiring Biofilms." North American- International Society for Microbial Electrochemistry and Technology Conference, University Park, State College, PA; 2014. *Poster Presentation*
8. **Srinivasan, V**., Butler, C. "Competition for Electron Donors in Anode-Respiring Biofilms." New England Graduate Student Water Symposium, University of Massachusetts-Amherst, MA; 2014.
9. **Srinivasan,V**., Park, M-H., Reckhow, D. " Developing a Watershed-Level Protocol for Choosing Indicators for EDCs/PPCPs using Analytical Methods and Chemometrics." 246th ACS National Meeting, Indianapolis, IN; 2013.
10. **Srinivasan, V**., Park, M-H., Reckhow, D. "Statistical Analysis for EDCs/PPCPs in the Assabet River, MA." New England Water and Environment Association Annual Conference, Boston MA; 2013.
11. **Srinivasan, V**., Castro, C., Weinrich, J., Butler, C. "Wastewater Treatment and Bioelectrochemical Systems." Indo-US Conference on Water Quality and Sustainability, Chennai, India; 2013. *Poster Presentation*

FELLOWSHIPS, HONORS AND AWARDS

1. **Bernard B. Berger Award** for Academic Excellence and Commitment to Research in Environmental Engineering, UMass-Amherst, 2015.
2. **Biofilm Summer School Fellowship** 2014
3. **Edward Sisson Doctoral Fellowship** 2013-2014.

SERVICES

Journal Reviewer

Environmental Science: Water Research & Technology, PLOS ONE, RSC Advances.

Outreach Activities

1. Graduate Women in Science Outreach**.** Topic: "Water-Past, Present and Future." Amherst, MA; 2015.
2. Women in Science and Engineering Seminar Series. Topic: "The Green Latrine." Great Barrington, MA; 2014.
3. High School Seminar Series. Topic: "Microorganisms- Macro impacts." Doherty High School, Worcester, MA; 2013**.**