

Siddhartha Paul

Houston, Texas, USA 🏠 | spaul5@cougarnet.uh.edu ✉ | 313.888.3177 ☎



Resource Recovery | Membrane Technology | Metallurgical Separation | E-Waste Recycling | Water & Wastewater Treatment | Clean Energy

RESEARCH EXPERIENCE	Selective Recovery of Critical Metal using Tunable Nanoporous COF/COP Membrane from End-of-Life Battery , 2023-present (Link) Expertise: Conceptualization Problem Solving Critical Thinking SWOT Analysis Grant Writing Chlorine-Resistant Covalent Organic framework (COF) Membrane Project funded by National Science Foundation (NSF) & American Membrane Technology Association (AMTA) , 2022-23 (Link) Expertise: Conceptualization Data analysis & Interpretation Research Management Planning Proposal Writing High Performance Desalination Using Contorted Polyamides Membrane Project funded by the U.S. Bureau of Reclamation's Desalination and Water Purification Research Program , 2021-23 Expertise: Membrane Fabrication Troubleshooting Characterization Preparing Technical Report Patent Acquisition –Faculty advisor: <i>Dr. Devin L. Shaffer, Department of Civil & Environmental Engineering, University of Houston, Texas</i>												
PROFESSIONAL EXPERIENCE	<table><tr><td>Sept 2023</td><td>Student Participant TeX-E Bootcamp by Martin Trust Center for MIT Entrepreneurship</td></tr><tr><td>May 2023</td><td>Tech Entrepreneur 2023 Summer Accelerator Program by Rice University and University of Houston, Texas</td></tr><tr><td>Feb 2023</td><td>Student Visitor Argonne National Lab, U.S. Department of Energy, Chicago</td></tr><tr><td>May 2021-Dec 2022</td><td>Graduate Teaching/Research Assistant University of Houston, Texas</td></tr><tr><td>Aug 2019 -Apr 2021</td><td>Junior Research Fellow Indian Institute of Technology (IIT) National Institute of Technology (NIT), India</td></tr><tr><td>2016</td><td>Graduate Engineer-in-Training Larsen & Toubro construction company, India</td></tr></table>	Sept 2023	Student Participant TeX-E Bootcamp by Martin Trust Center for MIT Entrepreneurship	May 2023	Tech Entrepreneur 2023 Summer Accelerator Program by Rice University and University of Houston, Texas	Feb 2023	Student Visitor Argonne National Lab, U.S. Department of Energy, Chicago	May 2021-Dec 2022	Graduate Teaching/Research Assistant University of Houston, Texas	Aug 2019 -Apr 2021	Junior Research Fellow Indian Institute of Technology (IIT) National Institute of Technology (NIT), India	2016	Graduate Engineer-in-Training Larsen & Toubro construction company, India
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INTERNSHIPS	One-month summer (2015) internship at the Central Public Works Department, Government of India												
EDUCATION	<table><tr><td>Ph.D. (2021-24)</td><td>Civil & Environmental Engineering University of Houston, Texas</td></tr><tr><td>Master of Technology (2017-19)</td><td>Civil & Environmental Engineering GPA 4.0/4.0 Indian Institute of Technology (IIT), India</td></tr><tr><td>Bachelor of Technology (2012-16)</td><td>Civil Engineering GPA 4.0/4.0 National Institute of Technology (NIT), India</td></tr></table>	Ph.D. (2021-24)	Civil & Environmental Engineering University of Houston, Texas	Master of Technology (2017-19)	Civil & Environmental Engineering GPA 4.0/4.0 Indian Institute of Technology (IIT), India	Bachelor of Technology (2012-16)	Civil Engineering GPA 4.0/4.0 National Institute of Technology (NIT), India						
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FEATURED PUBLICATIONS, & PATENTS	Google Scholar Citation: 200+, h-index: 7- (Link) R. Shevate, S. Shaligram, D. Shaffer, <u>S. Paul</u> , P. Taheri, 2023 US Patent Application 63/465,520 <u>S. Paul</u> , et al., Journal of Hazardous Materials (Elsevier), 2020, 390, 21366 (Impact Factor: 14.224) <u>S. Paul</u> , A. K. Shakya, P. K. Ghosh, Journal of Environmental Management (Elsevier), 2020, 261, 110113 (Impact Factor: 8.91) 2020 ISWA-SWIS Winter School Proceedings Copyright © Solid Waste Institute for Sustainability at the University of Arlington (Texas) available on Amazon												
FEATURED CONFERENCE	Oral presentation at the Texas Soft Matter 2023 conference, Houston (Aug 2023) Poster presentation at the North American Membrane Association, Tuscaloosa (May 2023) Attended Recell Event , Argonne National Lab (Apr 2023) (Link) Poster presentation at the American Membrane Technology Association conference, Knoxville (Feb 2023)												
HONORS & AWARDS	Selected in Red Labs Summer Accelerator Program 2023 – A joint initiative from Rice University (Link) and University of Houston (Link) Amount: \$5000/team Awarded US National-level American Membrane Technology Association (AMTA) Fellowship Amount: USD 11,750 (Link) Awarded SPE scholarship by Society of Plastics Engineers- UH Chapter Amount: USD 1000 (Link) Awarded Presidential Fellowship at the <i>University of Houston</i> during Ph.D. program Amount: USD 4000 Secured fully funded Winter School (2020) at the <i>University of Texas, Arlington</i> Awarded 2nd Best Oral Presentation across all department in <i>Research Conclave (2019) during master's degree</i>												
KEY COURSES	Mass Transfer in Env System Industrial Wastewater Pollution Control Physico-chemical Treatment Processes Principles of Env Modelling												
INSTRUMENTAL SKILLS	X-ray Diffraction (XRD) X-Ray Reflectivity (XRR) Small Angle X-ray Scattering (SAXS) Electrochemical Impedance Spectroscopy (EIS) Fourier-Transform Infrared Spectroscopy (FT-IR) Transmission Electron Microscopy (TEM) Thermogravimetric Differential Scanning Calorimetry (TG-DSC) Atomic Absorption Spectroscopy (AAS) X-Ray Photoelectron Spectroscopy (XPS) Atomic Force Microscopy (AFM)												
PROFESSIONAL SKILLS	Personality: Collaborator Project Manager Event Organizer Mentor Experimentalist Software skills: Microsoft Excel Word PowerPoint Blender 3D AutoCAD OriginLab LaTeX Python C-language MATLAB												
SERVICE ACTIVITIES	Served as Reviewer in the <i>Journal of Hazardous Materials</i> (Elsevier) and <i>ISA Transactions</i> (Elsevier) Served as President of <i>Society of Plastics Engineers (SPE) – UH Chapter, Texas</i> (Link)												
LANGUAGES	English (professional) Bengali (native) Hindi (fluent)												