# DEEP SHIKHA SRIVASTAVA

**Email: deep_shikha.srivastava@uconn.edu**
**Contact: +1-413-204-0017**
**linkedin.com/in/deep-shikha-srivastava-9ab12240**

## RESEARCH INTERESTS

Interested in synthesis, nano-architecture, and application of conductive polymers, composites, adhesives, and paints.

**Current Research:** The current project includes synthesis of Graphene and h-BN-based composites using SITM. These composites leverage the synergistic properties of both materials. The incorporation of h-BN into graphene mitigates issues related to graphene's zero bandgap, enabling tunable electronic properties. Additionally, the thermal management capabilities of these composites are superior due to the high thermal conductivity of graphene and the thermal insulating properties of h-BN. Such composites are promising for heat dissipation in electronic and optoelectronic devices.

Another project focuses on the development of functional nanostructured materials comprising graphene oxide and butyl acrylate using ATRP and Click chemistry. The work includes synthesis, molecular design, functionalization, and characterization of materials.

## EDUCATION

**NSF- UCONN Entrepreneurship Fellowship (2025-2026)** https://ehub.engr.uconn.edu/fellows-for-2025-2026/
Start-up: AeroGraphiX. Won "Get Seeded Pitch Night" Nov 2025

**Ph.D. (2022- present day)-** Polymer Chemistry (Material Science Lab), Department of Chemistry, UConn, Storrs, CT
https://adamson.ims.uconn.edu/person/deep-shikha-srivastava/

**Publication under review**: Mixed 2D Material-Templated PolyHIPEs: A Scalable Route to Lightweight, Patternable Conductive Composites (https://chemrxiv.org/engage/chemrxiv/article-details/686ebb5ce1957b8c61027484)

**2025 Publication**: Hexagonal Boron Nitride as a Two-Dimensional Surfactant: Low-Density Flame-Resistant Composites Based on Boron Nitride Exfoliated by an Interface Trapping Technique **(**https://doi.org/10.1021/acsami.4c16149)

**Master of Science Chemistry** (2009-2011) – MS equivalent per WES United States
*GPA:* 8.9
*Module:* Chemistry of Natural Products, Spectroscopy, Organic, Analytical, Inorganic, Physical, Polymer and Environmental Chemistry.

*Thesis:* **Design, Synthesis and Characterization of Calamitic Liquid Crystals and its Copper (II) complex.**
*From:* Department of Chemistry, Faculty of Science, BHU, India bhu.ac.in

**Summer Project Training** (June 2010)
**Development of Chemical Sensors using Molecularly Imprinted Polymer Technology**
*From:* Department of Chemistry, Faculty of Science, BHU, India bhu.ac.in

**Bachelor of Science, Chemistry** (2006-2009) – BS equivalent per WES United States
*GPA:* 7.2
*Module:* Physical Chemistry, Inorganic Chemistry, Organic Chemistry, Analytical Chemistry & Biochemistry.
*From:* Banaras Hindu University, India bhu.ac.in

**2 Year Diploma in Foreign Language (Spanish)** (2007-2009)
Passed with 88.6% score.
*Module:* Vocabulary, Grammar, Language Structures, Composition and Translation.
*From:* Department of Arts, Banaras Hindu University, India
https://www.bhu.ac.in/arts/foreign_lang/

## WORK EXPERIENCE

**Employer:** University of Saint Joseph, West Hartford, CT
**Duration:** Aug 2020 – August2022
**Role:** Chemistry Lab Coordinator & Instructor.

**Responsibilities:**
- Teaching Nursing Chemistry lecture courses.
- Teaching General Chemistry (Fall 2020- present) and Biochemistry (Spring 2021) labs.
- Creating course study materials, power points, exams and maintaining them on Blackboard.
- Setting up labs for General Chemistry and Biochemistry experiments.
- Maintaining lab inventory for Chemistry Department.
- Responsible for Chemical hygiene.
- Training adjuncts and lab instructors.

**Employer:** Capital Community College, Hartford, CT
**Duration:** Jan 2020 – August2022
**Role:** Adjunct Faculty Chemistry

**Responsibilities:**
- Teaching General Chemistry lectures and labs to Nursing Students.
- Creating course study materials, power points, exams and maintaining them on Blackboard.
- Grading exams, hosting review sessions.

- Teaching virtually through WebEx, MS Teams and Blackboard Collaborate Ultra.

**Employer:** Capital Community College, Hartford, CT
**Duration:** October 2019 to December 2019
**Role:** Lab Technician, Department of Science and Math

**Responsibilities:**
- Responsible for setting up Anatomy & Physiology, Chemistry, Biology and Microbiology labs.
- Responsible for all wet and dry preps and handling various instruments.
- Collaborating and coordinating with faculty regarding lab course set-up and syllabus.

**Employer:** Varsity Tutors
**Duration:** November 2020 – August2022
**Role:** Chemistry Tutor

**Responsibilities:**
- Assignment selection and teaching at College and High School level.
- Creating study materials for students and helping with assignments, tests and daily class work.

## SCHOOL TEACHING EXPERIENCE

**LaBetances Elementary School, Hartford, CT** **Jan-June 2020**
Building substitute for the school calendar year.

**Hartford Public School, Hartford, CT** **Jan 2020 - Present**
Substitute teacher for Elementary, Middle and High Schools.

**Rocky Hill Public School, Rocky Hill, CT** **Jan 2020 - Present**
Substitute teacher for Elementary, Middle and High Schools.

**Cromwell Public School, Cromwell, CT** **Oct 2019 - Present**
Substitute teacher for Elementary, Middle and High Schools.

**Kelly Educational Services, Hartford, CT** **Jun 2019 - Present**
Substitute teacher in Elementary and Middle Schools in different school districts of CT.

**Science Teacher at RBS Academy, Varanasi, India** **Apr 2012 – Jan 2015**
Taught Science to grades 1 to 5 and Chemistry to grades 6 to 8.

**Private Tutoring in Varanasi, India** **Apr 2009 – Mar 2012**
Chemistry to grade 6 to 10 students. Math & General Science to grade 1 to 5 students.

## ADDITIONAL CERTIFICATIONS/EXAMS

- Qualified GRE (General Test) with a score of 302 in May 2012.
- Qualified TOEFL iBT with a score of 103 in June 2012.
- Completed 'Best Practices of Online Pedagogy Course' at Middlesex Community College, Middletown, Connecticut.
- Received 'iTeach Certificate' from Connecticut Community College's Educational Technology Council.
- Trained in Laboratory Safety via 2-Day Course from Lab Safety Institute, Natick, MA.

## LEADERSHIP ROLES

1. **Organization:** Department of Chemical Health & Safety (DCHAS)
   **Affiliation:** American Chemical Society
   **Role:** Peer-Led Workshop Organizer
   **Responsibilities:** Organize, plan, and run a Peer-led international workshop on Lab Safety and RAMP.

2. **Organization:** ACS-Rubber Division
   **Affiliation:** UCONN
   **Role:** E-board member (Financial Secretary)
   **Responsibilities:** Manage the club's budget and finances; keep track of expenses and income; help secure funding for activities.

3. **Organization:** ACS- Joint Safety Team
   **Affiliation:** UCONN
   **Role:** Vice President- Education and Resources
   **Responsibilities:** Oversees Chemical Safety Courses, Stall Street journals, department-led safety workshops, and school outreach programs.

4. **Organization:** ACS-Society of Plastic Engineering
   **Affiliation:** UCONN
   **Role:** Financial Secretary
   **Responsibilities:** Manage the club's budget and finances; keep track of expenses and income; help secure funding for activities.

5. **Organization:** Graduate Student Advisory Committee
   **Affiliation:** UCONN
   **Role:** E-board member
   **Responsibilities:** Serve as liaison between Chemistry graduate students, faculty, administration, and the University. Managed graduate handbook and conducted outreach and milestone seminars for grads.

**OTHER SKILLS**

- Knowledge of laboratory work skills and research methodologies.
- Experienced in handling and preparing samples and characterization techniques.
- Well-versed with analytical techniques - HPLC & Gas Chromatography, UV-Visible, FTIR, XRD, Raman, TGA, DSC, and TEM, SEM.
- A STEM-Business Leader, funded for AeroGraphiX (a revolutionary air filter)
- Great at data maintenance & information collection, writing and presenting reports.
- Proficient in using Blackboard, WebEx, Zoom, Trello, and MS Teams virtual platforms for meetings and teaching.
- Well-versed with Microsoft Windows operating system and Office Tools such as Microsoft Office Suite, Common Internet Browsers