Vikash Meghwal

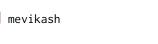
mevikash.iitk@gmail.com







Website +91 902 473 6762



Education

2019 – Present

BS-MS Dual Degree in Chemistry, Indian Institute of Technology (IIT) Kanpur IIT Kanpur, Kalyanpur, Kanpur, Uttar Pradesh 208016. Master of Science in Chemistry PG CPI - 8.2/10.0 Bachelor of Science in Chemistry UG CPI - 7.0/10.0

2017 - 2018

Intermediate/+2, CBSE Precentage - 72.8%, Lawrence and Mayo Public School

Ajmer in Makarwali, Ajmer, Rajasthan 341512.

2015 - 2016

Matriculation, J&KBOSE - 82.8% or CGPA - 8.8/10.0, Bharti Public High School Bari Brahmana, Chak Ratnu, Jammu and Kashmir 181133.

SURGE Program (Summer Research Intern)

May'23-July'23

Supervisor: Prof. Pratik Sen, Biophysical Chemistry Research Group, Dept. of Chemistry, IIT Kanpur Lab Project

Title: Elucidation of the Structure and Dynamics of Synergistic Mixed Solvent Systems.

Learning Work: This research project focuses on investigating the structure and dynamics of synergistic mixed solvent systems through distillation, NMR spectroscopy, and data analysis. Strong analytical skills, effective communication, and collaborative approach to research.

Skills: 1H NMR · Vacuum Distillation · Absorption Spectroscopy · Emission · IGOR Pro · Origin (Software) · Python (Programming Language)

Research Experience (Undergraduate Research Project)

Jan-May'22

Supervisor: Prof. Nagma Praveen Research Group, Chemical Biology (Bio-Nanoparticle Lab), Dept. of Chemistry, IIT Kanpur Lab Project Title: Studying the SARS-CoV-2 fusion in detail using an opportunistic model for the fusing of the coronavirus membrane. Receptor binding and priming of the spike protein of SARS-CoV-2 for membrane fusion.

Future Work: To create medicines for human consumption and vaccines to combat infections and disease. And use this knowledge to create nanoparticle medicines and enough adoptable vaccines.

Learning from lab: Viruses and Binding fusion in SARS-MERS Covid.

Jan'23-Present'23

Supervisor: Prof. Pratik Sen, Biophysical Chemistry Research Group, Dept. of Chemistry, IIT Kanpur Lab Project **G** Website

Title: Role of Hydrophobicity in Synergistic Solvation.

Learning from Lab Work: Purification of Organic Solvent, NMR Technique, Vacuum Distillation, Use of Lab Equipment.

Self-Project)

Personal Website

Personal Website: Angular (a web framework), Electron Js, and web development tools were used.

Server and Client App

Using Android-studio, created a **G** Server and **G** Client application that enables the storage of data on the Google Fire-base Framework.

Desktop Application

■ Using Electron Js, created a desktop application that assists students in managing academic data. Used HTML, CSS, and Java-script in the frontend and backend of the application.

Android App, ChatBot

 Using Flutter, created a bill-paying Calculator in the restaurant, which also facilitates in tipping.
 Created a Telegram and WhatsApp Chatting bot on Replit.

Course Project work

2021-22

📕 Supervisor: Prof. Anish Upadhyaya, IIT Kanpur

Title: Cantilever ToolBox

Learning Work: Dr. Anil Kumar Verma, LAB & COURSE in CHARGE Anish Upadhyaya, M.D. Dr. Amarendra K Singh is a tutor. We worked on the manufacturing process, as well as designing the structure and components of the ToolBox. We have 9 members in our team. I also created a 3D model of the box in the Fusion360 Designing Tool, and I finalised the cost of the manufacturing process with two other members. It was a group effort.

Research Interest

Skills

Languages English, Hindi and Rajasthani.

Programming Languages

C/C++, Fortran Programming, Python...

Android Development

Android Studio, Flutter, Kotlin, and Postman API.

Frameworks

Electron, React, Node.js, Angular.

Developer Tools

Operating System/ Terminal

Knowledge of Unix/Linux or Windows environments and APIs, CMD, Power Shell.

Misc.

Fusion360, PowerPoint, Adobe Photoshop, MS-Word, Adobe Illustrator, Auto CAD, Overleaf, MongoDB, GNU Plot, Linux Shell, Avogadro, Orca.

Position and Responsibilities

2021-22 Council Secretary Exhibition

IIT Kanpur

 $^{^{\}circ}Spectroscopy$

 $^{^{\}circ}PhysicalChemistry$

 $^{^{\}circ} Experimental Studies$

 $^{^{\}circ}Molecular Simulation$

 $^{^{\}circ}Programming$

Position and Responsibilities (continued)

Techkriti RoboGames Senior Executive

Prepared a database of various colleges and contact them as well as convince them to Participate

Prepared a database of various colleges and contact them as well as convince them to Participate in the RoboGames RoboCaAD Manoeuvre using abstract calling.

- Senior Secretary Chess Club
 Organizes Chess tournaments for the campus community. Conducted various events on Lichess
- Secretary | Ritambhara | Antaragni IIT Kanpur

 Prepared a database of various fashion giants and We contacted them and convince them to sponsor our event. Contacted various colleges and their fashion societies and increased the participation in the event.
- Volunteer | Ritambhara | Antaragni
 Assist the Senior Secretary in organizing an event while Antaragni, Pearl Academy Delhi, and other team members visit the campus. Volunteered for the Hospitality wing of Antaragni-IIT Kanpur's annual cultural fest, where more than 600 people need to stay.