

I would like to introduce myself as Vikhashini PM, an MSc Physics graduate from St Joseph's University Bangalore. I see and experience physics in everything! I am a highly motivated person and I find inspiration from history; I like to connect the unconnected and create my own logical output in things. I push my own boundaries and allow myself to think outside the box and most importantly I have a burning urge and desire to learn!

SKILLS

- A certified course on Data Analysis using Python – use my understanding and skills in python to analyze data collected for a better visualization on the solution to the problem.
- Data Analysis using Excel – use my skills for data assimilation, segregation/sorting, cleaning, work with tables, plotting and all the related function for simple calculations and quick results
- Data Analysis in Origin – XRD analysis, UV-Vis Analysis of thin films and nanocomposites and Nanoindentation data analysis.
- Laboratory testing focused mainly on mechanical testing of metals as per Indian and International Standards. My experience includes NABL accredited testing of Macro and Micro hardness, UTM, Surface Roughness, Grain size determination, Adhesion and abrasion Resistance.
- Good knowledge in wxMaxima, SciLab - open-source software
- Carrying out preliminary study on use of nanoindentation in semiconductor wafers and chip building.

EXPERIENCE

- **Mar 2023 – Present: Indian Institute of Science, Bangalore**
Position: Project Associate -1
Guide: Prof. Praveen Kumar; Department: Materials Engineering
- **Sep 2022 – Dec 2022: Chemical and Metallurgical Laboratory, Magadi Road, Bangalore**
Position: Trainee

ON GOING PROJECTS

- I am currently working on a nano electro lithography system at the ThermoElectroMechanical Behavior Lab under the guidance of Prof. Praveen Kumar at the Materials Engineering Department, Indian Institute of Science, Bangalore. I am designing a hardware and software interface to build and optimize the system from ground up to perform certain etching operations suited to our application needs. This project is a government funded project under the Abdul Kalam Technology Innovation National Fellowship offered by the INAE (Indian National Academy of Engineering).

COMPLETED PROJECTS

- I have done my master's thesis under *Prof. Upadrasta Ramamurty* of *Nanyang Technological University, Singapore*. Prof. Ramamurty holds the President's chair in Mechanical and Aerospace Engineering and Materials Science and Engineering. My work primarily focused on the stochastic behavior of incipient plasticity at the nano scale to study various dislocation nucleation mechanisms of single crystal Nickel under different thermodynamic conditions. The study also extends to the use of single crystal in the field of chip building, semiconductor properties and physiological applications to name a few.

INTERESTS

- Thin film vapor deposition, nanoindentation, nanofabrication and characterization
- Vacuum technology and its industrial uses in PVD and development of nano materials.
- Shape memory alloys, ceramics and super conductivity
- Photocatalysis, energy devices

EDUCATION

Qualification	Grade/ Result	Subjects	Awarding institution	Start date Month/year	End date Month/year
Central Board of Secondary Education (class 10)	85.5% First class with distinction	English, Hindi, mathematics, science, social science	Army Public School (PRTC), Bangalore, KA, India	May-2013	May-2014
Department of Pre-University Education (Class 12)	95.5% First class with distinction	Physics, chemistry, mathematics, electronics, English, Sanskrit	Presidency Pre-University College, Bangalore, KA, India	Jun-2014	May-2016
B.Sc. in Physics, Mathematics, Electronics	80.50%	Physics, mathematics, electronics	CHRIST (Deemed to be University), Bangalore, KA, India	Jun-2016	May-2019
M.Sc. in Physics	72.8%	Physics	St. Joseph's University, Bangalore, KA, India	Aug-2020	Aug-2022

EXTRA CURRICULAR ACTIVITIES

Student Council Member in CHRIST

- Was a key person in the policy making and implementation of administrative requirement of the student council.

Exhibitor In a Next-Gen Electronics Expo

- Designed, manufactured, tested and displayed a Quadcopter.
- It was also a part of our final year project and was appreciated for the futuristic thinking in design and execution in electronics.

A Certified Course on Fundamentals of Banking

- Attended a certified course on fundamentals of banking and the core operation of the bank.

HOBBIES

Geopolitics

- Interested in geopolitical news and debates on current world order.

Business case studies

- Interested in reading and watching business case studies of Indian companies in particular and drawing comparisons with Western companies.

Culinary Art

- Explore different cuisines from across the world and learn the origin and history behind different food and their evolution over time.

Tea

- I explore different varieties of green and herbal tea.

Gardening

- I have done a course in horticulture. Avid collector of ornamental and flowering plants to enhance indoor ambiances.

Music

- Listen to Western classical music and lover of jazz.
- Also love playing the Violin (western classical), currently learning the Cello (western classical)

Parents

Father: Manoharan P

Mother: Malathy M

Languages: English, Hindi, Tamil, Kannada

City of residence: Bangalore, INDIA

DECLARATION

I hereby declare that the details mentioned above are correct to the best of my knowledge and belief. I bear the responsibility of any error or mistake in the data if occur in the future.



Signature