

Vignesh Asokan

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Education

PhD Candidate

2025-present

Institute of Science and Technology Austria, Klosterneuburg

Physics Track: Experimental Condensed Matter Physics

BS-MS Dual Degree, Major in Physics

2020-2025

Indian Institute of Science Education and Research Mohali

Current CPI: 9.41/10

Senior Secondary Education

2019-2020

Springdales School, Dhaula Kuan, New Delhi

Secured 95.8% (Subjects: Physics, Chemistry, Mathematics, Biology, English)

Experience

Master Thesis

June 2024-Feb 2025

I. Physikalisches Institut, Georg-August-Universität Göttingen

Under the supervision of [Prof. Thomas Weitz](#), worked on fabrication of suspended Graphene-MoS₂ heterostructures. Developed a process for the fabrication of suspended heterobilayers without hBN for the study of superconductivity and other proximity effects in Graphene in a low dielectric limit.

Summer School

September 2024

Max Planck Institute for the Physics of Complex Systems, Dresden

Was selected for a week long on-site school titled "Collective Phenomena in Quantum Many-Body Physics: From Quantum Matter to Light". The school consisted of lectures on various topics in Quantum Dynamics from researchers from around the world, talks by PhD students of the institute, coding sessions and Lab Tours.

Course Project

Jan-Apr 2024

Indian Institute of Science Education and Research Mohali

As a part of course PHY665: Quantum Phases of Matter and Phase Transitions, I participated in a project which involved exploring Kwant and its applications on quantum transport simulations. Was able to simulate some aspects of the Integer Quantum Hall Effect and Kitaev p-wave chain.

Research Internship

May-July 2023

Institute of Science and Technology Austria, Klosterneuburg

Under the supervision of [Prof. Hryhorii Polshyn](#). I gained experience in the methods of exfoliation and stacking 2D materials using the dry-transfer technique to form various van der Waals heterostructures.

Research Internship

May-August 2022

Functional Thin Films and Electron Microscopy Lab, Indian Institute of Science, Bengaluru

As a part of the CeNSE (Centre for Nano-Science and Engineering) Summer Internship Program worked under the guidance of [Dr. Pavan Nukala](#). The project entailed synthesis of doped hafnium oxide ferroelectric thin films and investigate their morphological properties. Additionally, I also attempted sol-gel synthesis of LSMO thin films. I was trained in basic synthesis techniques used in the field of materials science and was exposed to characterization tools like XRD, SEM and AFM.

Awards and Certifications

DAAD-WISE Scholarship

2023

Was selected for the DAAD-WISE Scholarship for the year 2023 by the German Academic Exchange Service.
(Did not accept the scholarship)

Zonal Topper - Mimamsa**2022**

Part of a team which stood as Zonal Toppers for the Haryana-Punjab region for Mimamsa, a National Level Science Quiz conducted by IISER Pune

Award for Academic Excellence**2021**

Awarded for obtaining 10 SPI in the 3rd semester by IISER Mohali.

INSPIRE-SHE Scholarship**2020-2025**

Receipient of a monthly fellowship for top 1% CBSE Students awarded by Department of Science and Technology

Ashwin Gatha Memorial Award**2020**

Joint Topper of the Medical Stream the batch of 2020 with 95.8%, awarded by Springdales School, Dhaula Kuan

Skills

<i>Languages</i>	English (Full Working Proficiency), Hindi (Native Proficiency), Tamil (Native Proficiency) German (Elementary Proficiency)
<i>Programming Languages</i>	Python
<i>Softwares</i>	Autodesk Inventor and AutoCAD, Gwyddion, OriginPro, KLayout

Extra Curricular Activities

1. Positions Held:

- Senior Editor for *Manthan*, Student Magazine of IISER Mohali.
- Hobby Quizzer and active member of *IMQC* (IISER Mohali Quiz Club). Hosted quizzes for the club.
- School Prefect for Senior (2019-20) and Junior (2012-13) Wing of Springdales School.

2. Member of the Community Service Centre of Springdales School, Dhaula Kuan and volunteered at National Association for the Blind (NAB) as a part of Inclusive Education Programme of Springdales School from 2018-2020.

3. Awarded certificate of achievement for literacy program held under the Delhi Schools Literacy Project (State level initiative). Entailed educating someone who hasn't received formal education.

4. Learnt Tabla (Hindustani Classical) for 3 years and awarded certificate of completion by Prayag Sangeet Samiti (nationally recognised institute).