Koushik V

Education

2020–Present **M.Tech. Optoelectronics and Communication**, *Sri Sathya Sai Institute of Higher Learning*, *Prashanthi Nilayam*.
$\overline{\text{CGPA}}$: 8.6/10

2018–2020 **M.Sc. Physics**, *Sri Sathya Sai Institute of Higher Learning*, *Prashanthi Nilayam*.
CGPA: 8/10

2014–2017 **B.Sc. Physics**, *Loyola College*, *Chennai*.
CGPA: 8.75/10

2012–2014 **Intermediate**, *Sri Sankara Vidyalaya*, *Chennai*.
Percentage: 91%

Masters Thesis

Title *Towards Middle Ear Diagnostics Using Low-Cost Optical Coherence Tomography*

Supervisor Dr. Shailesh Srivastava

Description This work is an attempt to assemble and understand the functioning of OCT and work on a low cost OCT device to enhance its capabilities. Protocols have been developed for middle ear disease diagnostics and tympanic membrane vibrometry. Novel techniques were developed to enhance the utility of low-cost OCT devices.

Projects

Graduate **CamGUI for BscanFFT**, *Front-end application*, 2019.
A simplified front-end standalone application was developed using Python-Kivy, for the ease of use for doctors. This software integrates the main B-scan software and acts as an interface between the user and the B-scan program.

Undergraduate **Construction of Dobsonian Telescope**, *Loyola Research Park*, 2016.
The main motivation behind this project was to build a 6 inch Newtonian telescope with a focal ratio of $f/8$ suitable for both planetary as well as deep space observations.

Internships

Winter 2016 **Non-Linear Dynamics and Chaos**, IMSc, Chennai.
Prof. M.V.N. Murthy (Professor H)
Introduced to the fundamental ideas behind dynamical systems along with a few examples of their real world applications such as some approximate models corresponding to population growth and the spread of epidemics.

Summer 2016 **Introductory Statistical Mechanics and Quantum Physics**, IMSc, Chennai.
Prof. Purusattam Ray (Professor H); *Prof. G. Rajasekaran (Professor Emeritus)*
Exposed to the concepts of fundamental Statistical Mechanics and Quantum Physics.

Scholarships

2017   Fr. Honore scholarship for outstanding performance in the academics

Skills

● ● ● ● ○   Python, C++, LATEX, Git, HTML, MATLAB, Scilab
● ● ● ● ○   JAVA, CSS, Shell
● ● ● ○ ○   JavaScript, Kotlin, ReactJS

Languages

Tamil	**Mothertongue**	
English	**Advanced**	*Adept*
Hindi	**Intermediate**	*Good understanding and basic speaking skills*
French	**Basic**	

Interests

- Music Production
- Audio Mixing/Mastering
- Books
- Gaming

- Carnatic Music
- Western Classical
- Cycling
- Programming