

Mahathi Narayanaswamy

<https://mahathinarayanaswamy.weebly.com>

Instagram://[mahathi.1.8.9](https://www.instagram.com/mahathi.1.8.9) | LinkedIn://[Mahathi Narayanaswamy](https://www.linkedin.com/in/MahathiNarayanaswamy)
nmahathi02@gmail.com | mahathi.narayanaswamy20ug@apu.edu.in

Education

AZIM PREMJI UNIVERSITY Sept 2022 - Present| Bangalore, KA

School of Arts and Sciences

B.Sc Physics(Hons)

Interdisciplinary Minor - Sustainability

Cumulative GPA(at present): 8.88 / 10.00

Major GPA(at present): 9.00 / 10.00

NATIONAL INSTITUTE FOR OPEN SCHOOLING July 2018 - October 2020| Senior Secondary

English: 88%, Mathematics: 94%

CENTRAL BOARD OF SECONDARY EDUCATION June 2008 - June 2018| Secondary

Kendriya Vidyalaya, IIT Madras

English:88%, Science: 88%, Mathematics: 95%

Coursework(complete/in-progress)

UNDERGRADUATE Major - Physics

Computation in Physics

Experimental Foundations for Physics

Physics: Scope, Tools and Ideas

Mathematical Tools for Physics

Mechanics

Wave Phenomena

Electricity and Magnetism

Atoms and Molecules

Thermal Physics

Optics

Electronics

Advanced Mechanics

Modern Physics

INTERDISCIPLINARY MINOR

Sustainability

Framing Sustainability: A Social-Ecological
Systems Perspective

Sustainability in Urban Social-Ecological
Systems

Field Practice at two field sites of the Ashoka

Trust for Research in Ecology and the

Environment (ATREE)

GIS for Sustainability

Research Projects

READING PROJECT BASED ON MODERN PHYSICS November 2022 - present| Azim Premji University

Paper - "Classical Theory of Tachyons (Special Relativity Extended to Superluminal Frames and Objects)"

by E.Recamì and R. Mignani

Mentor - [Prof. Richard Fernandes](#)

UNDERGRADUATE HONOURS PROJECT February 2022 - present| Azim Premji University

Topic - Theorizing the existence of Magnetic Monopoles

Mentor - [Prof. K. Sridhar](#)

Goal - A self-study project involving quantum mechanics, electrodynamics and mathematics required to theorise the existence of a magnetic monopole.

TALBOT EFFECT PROJECT November 2021 - present| Azim Premji University

Topic - Talbot Effect in Water Waves

Mentor - [Prof. Proteep Mallik](#)

Undertaken originally as a course project for a course on Wave Phenomena. Extended to study the occurrence and characteristics of Talbot effect in water waves generated in shallow water and the factors that affect it.

MOTHS OF CHENNAI 2019 - present

This is a project aiming to document the Moth diversity occurring in Chennai.

Further Details: [ResearchGate - Moths of Chennai Project](#)

BIODIVERSITY OF CHENNAI 2019 - present | iNaturalist

This is a project aiming to compile citizen science records of all biodiversity documented from Chennai.

Further Details: [iNaturalist - Biodiversity of Chennai Project](#)

Skills

PROGRAMMING

• Python(Matplotlib,Numpy) • HTML(basic)

PUBLISHING TOOLS

• LucidPress • Canva • Weebly • Latex

PRODUCTIVITY TOOLS

• Google Docs, Sheets, Slides • OpenOffice Calc

DATA PROCESSING AND ANALYSIS TOOLS

• Raven • Ocenaudio • Tracker • Desmos • QGIS

CO-CURRICULAR

• Astronomy - stargazing and setting up of telescopes

EXTRA CURRICULAR

• Sketching & Painting • Photography • Trekking • Basketball • Badminton

Experience

RHODES SCHOLARSHIP | FIRST ROUND INTERVIEW CANDIDATE

October 2022

Selected as a candidate for Rhodes Scholarship interviews in 2022.

PHYSICS CLUB | CLUB COMMITTEE MEMBER

2022 - Present | Azim Premji University

As part of the Physics Club I have been part of organising multiple talks, conducting astronomy sessions and other workshops and events.

CHENNAI YOUNG NATURALISTS' NETWORK | FOUNDER, ADMINISTRATIVE AND OUTREACH MEMBER

July 2020 - Present | Chennai, TN

The [Chennai Young Naturalists' Network](#) is a network aimed to bring together young naturalists from Chennai in order to create a platform for interactions. It also aims to create increased general awareness.

NATURE TRAIL | FOUNDING EDITOR, DESIGNER

July 2020 - Present | Chennai, TN

[Nature Trail](#) is an e-Magazine that is published by the Chennai Young Naturalists' Network. It aims to reach a broad spectrum of readers, particularly among the youth, and ignite curiosity and scientific thinking towards the natural world, while also promoting young naturalists to develop a variety of skill sets.

CITIZEN SCIENCE | NATURE EDUCATOR

2016 - Present

Attended "Birding Buddies" workshop for Bird Educators by Early Bird India - December 2017

Conducted Nature walks at Azim Premji University, Bangalore and Indian Institute of Technology Madras, Chennai.

Conducted Lec-dem sessions for [general public](#) as well as for school and college students at [Stella Maris College](#), Adamas University and Adyar Theosophical School.

CITIZEN SCIENCE | CONTRIBUTOR

2014 - Present

• [eBird.org](#) • [iNaturalist.org](#) • [Moths of India](#) • Butterflies of India

Scientific Exposure

INDIAN INSTITUTE FOR ASTROPHYSICS(IIA) | FIELD VISIT TO THE CENTRE FOR RESEARCH & EDUCATION IN SCIENCE TECHNOLOGY(CREST)

April 2022 | Bangalore, KA

Learnt about various observatories in India, about the development of the Thirty Metre Telescope(TMT), and India's role in the production of specific parts.

NATIONAL CENTRE FOR BIOLOGICAL SCIENCES | SOUND RECORDING WORKSHOP

April 2019 | Bangalore, KA

Learnt tools and techniques for sound recording and processing with focus on applications in bio-acoustics. Program conducted by Andrew Spencer, Jessie Barry and Matt Medler from the Macaulay Library at the Cornell Lab for Ornithology.

CORNELL LAB FOR ORNITHOLOGY | YOUNG BIRDERS EVENT

June 2018 | Ithaca, NY

Was among the 18 young birders from across the world selected for the event. Learnt from leading researchers in the lab about various research and citizen science projects.

NATIONAL CHILDREN'S SCIENCE CONGRESS(NCSC) | REPRESENTED SOUTH ZONE IN KENDRIYA

VIDYALAYA NATIONAL MEET

2017 | Chennai, TN - Dehradun, UT

Presented results of a collaborative project (with Tanmay Jain) analyzing the bird diversity and abundance in Guindy National Park and IIT Madras, 2 adjacent campuses in Chennai, Tamilnadu. The project was selected from the South Zone region of the Kendriya Vidyalayas and presented at the National Meet in Dehradun.

INDIAN INSTITUTE OF TECHNOLOGY(IIT) MADRAS | ENGINEERING IS FUN WORKSHOP

May 2014 and 2015 | Chennai, TN

Learnt wood work, making molds, implementing basic circuits, working with hydraulic and pneumatic pumps, and 3-D printers.

Recognition in the Press

2018	Bird Count India	Birder Profile
2018	The Hindu	Passion Takes Wing
2020	The Hindu	First Sighting of Eastern Yellow Wagtail in TamilNadu
2022	The Hindu	135 moth species documented from a Chennai neighbourhood, largely from one apartment

Publications

- [1] Vikas Madhav Nagarajan, Rohith Srinivasan, and Mahathi Narayanaswamy. Diversity of moths from the urban set-up of valmiki nagar, chennai, india. *Journal of Threatened Taxa*, 13(14):20174–20189, 2021.
- [2] Mahathi Narayanaswamy. A drongo cuckoo surniculus dicruroides from chennai (letter to the editor). *Indian Birds*, 12(6):175, March 2017.