



Himani Gangurde
Engineering Physics
Indian Institute of Technology, Bombay
Specialization: Nanoscience

16D260002
Dual Degree (B.Tech. + M.Tech.)
Gender: Female
DOB: 13-01-1998

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2021	

TECHNICAL AND COURSE PROJECTS

DFT Bandstructure Calculations on Bulk and 2-D Materials (May'19-Nov'19)

Guide: Prof. Alok Shukla, Department of Physics IIT Bombay

- Calculated **Total and Fermi energy** profile of bulk materials and monolayer graphene using **Quantum Espresso** with variable input parameters so as to obtain inherent material properties
- Performed **band structure calculations** for the same in order to obtain conductivity properties

Talk-Back Machine | Course Project, Microprocessor Lab (Sep'18)

Guide: Prof. Pradeep Sarin, Department of Physics IIT Bombay

- Set up an **Arduino based mechanism** capable of recognizing four voice commands and responding
- Designed an **algorithm to distinguish** between the four commands in subject using FFT

Particle Physics Simulations | Course Project, Experimental Nuclear and Particle Physics (Sep'18)

Guide: Prof. Pradeep Sarin, Department of Physics IIT Bombay

- Simulated and studied particle behaviour** under various external conditions using GEANT4

TECHNICAL SKILLS

- Programming and Web Development:** C++, Python3, HTML5, CSS, VHDL
- Operating Systems:** Windows, Ubuntu, Fedora
- Software:** AutoCAD, MS Office, Origin, Quantum Espresso, XCrySDen, Quartus, GEANT4

PROFESSIONAL EXPERIENCE

Intern | AAN Charitable Trust (Jul'20)

- Raised INR 40,600** in 20 Days for **distribution of sanitary napkins** during the pandemic
- Documented the initiatives taken by AAN Charitable Trust namely, Keep Children Reading, Dignity Kit Distribution, COVID-19 Rapid Response, Good Touch-Bad Touch, and Chindi Durries

LEADERSHIP AND TEAMWORK EXPERIENCE

Activity Associate | Educational Outreach, National Service Scheme (Apr'17-Apr'18)

Part of a 9-membered team selected out of 50+ candidates IIT Bombay

- Initiated 'Neem School'** for underprivileged slum kids and provided them with **moral education**
- Organized weekly campaigns** for extra-curricular development of kids from 2 different NGOs
- Led **50+ volunteers** to educate mess and PHO workers as well as students at various NGOs

Teaching Assistant | English Language Improvement Training (May'18-Jul'18)

Part of a student driven team, served as a content developer to a class of 50 students IIT Bombay

- Curated useful and extensive content** in coordination with the tutors, to be used for teaching
- Brainstormed training sessions to help students improve communication and written English skills

Teaching Assistant | British Council Program (Aug'18-Nov'18)

English Language Program dedicated to selective freshmen IIT Bombay

- Monitored **individual progress of students** in speaking and writing skills in a class of 26 students
- Acted as interface between British Council and IIT Bombay students to **improve communication**

CERTIFICATIONS

- Fundamental Neuroscience for Neuroimaging:** Johns Hopkins University | Coursera (Aug'20)
- Introduction to Psychology:** Yale University | Coursera (Aug'20)

MISCELLANEOUS

- Devoted **80+ hours in teaching** children in NGO 'Asha' and female mess workers (Aug'16-Apr'17)
- Secured **first position** in inter-hostel girls' table tennis general championship of institute (Jan'18)
- Created educational video on 'Phases of Moon', for **YouTube** channel OLI-NSS, IITB (over 120K Subscribers) and received an overwhelming response with **over 100K views** and counting (Jan'18)