

# VIDUSHI CHAUDHARY

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## EDUCATION

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<b>Master of Technology in Functional Materials and Nanotechnology</b>	2020-2022
Indian Institute of Technology, Madras; CGPA 9.46/10	
<b>Master of Science in Physics</b>	2016-2018
Department of Physics & Astrophysics, University of Delhi	
<b>Bachelor of Science with Honours in Physics</b>	2013-2016
Miranda House, University of Delhi; Percentage 83.91/100	
<b>Standard XII, The Central Board of Secondary Education</b>	2012-2013
D.A.V. Public School, Dehradun; Percentage 87.20/100	
<b>Standard X, The Central Board of Secondary Education</b>	2010-2011
D.A.V. Public School, Dehradun; CGPA 8.8/10	

## RESEARCH EXPERIENCE

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### Synthesis of few-layer Graphene using Chemical Vapor Deposition (CVD) and its Characterization by Scanning Tunneling Microscope and other tools

*Master Thesis, Graphene and 2D systems Laboratory, IIT Madras* Jul 2021-Jun 2022

*Supervisor: Dr. Manu Jaiswal*

- Synthesized few-layer turbostratic Graphene on Nickel by Atmospheric pressure Chemical vapor deposition technique using Solid botanical precursor (Camphor).
- Characterized CVD grown graphene using Raman spectroscopy, High resolution transmission electron microscope (HR-TEM).
- Surface study of Highly oriented pyrolytic graphite (HOPG) and CVD grown Graphene/Ni using Scanning Tunneling Microscope (STM).

### An Elementary Comparative Study between Different Perturbation Methods in One-Dimensional Quantum Problems

Jun-Jul 2019

*Visiting Student, Harish Chandra Research Institute, Prayagraj*

*Supervisor: Dr. Ujjwal Sen*

- Studied the WKB (Wentzel, Kramers, Brillouin) approximation method and time-independent perturbation theory for solving one-dimensional quantum problems
- Carried out a comparative analysis of the two methods for different 1-D problems

## ACADEMIC PROJECTS

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### Hands-on Experience with LabVIEW

Jun-Jul 2014

*DS Kothari Centre for Research and Innovation in Science Education, Miranda House*

*Supervisor: Dr. Mallika Verma*

- Performed data acquisition and analysis through different sensors using Vernier Logger Pro software
- Designed LabVIEW codes for basic sensor-control projects using Vernier Sensor DAQ interface and Vernier Digital Control Unit

## **SCHOLASTIC ACHIEVEMENTS**

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- Awarded with Sri Krishnamurthy Sundarambal prize for best academic record in M.Tech. for the period 2020-2022.
- Secured an Overall Band Score 7.0 in the International English Language Testing System (IELTS) held on March 07, 2022
- Qualified Graduate Aptitude Test in Engineering (GATE) Physics, 2020
- Secured All India Rank 95 in Joint Entrance Screening Test (JEST), Physical Science 2018

## **POSITION OF RESPONSIBILITIES**

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- Assisted Chegg, an online Tutor Platform and solved 900+Advanced Physics problems with rating of 4.8 Dec 2018-Jul 2020
- Assisted and taught several experiments to M.Sc. (Physics) students and took the responsibility of planning and conducting various tutorials in quantum mechanics during M.Tech.

## **LABORATORY EXPERIENCE**

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- Laboratory for Synthesis and characterization of nanomaterials
- Advanced Laser and Spectroscopy Lab
- Electronics Lab

## **EXTRA-CURRICULAR ACTIVITIES AND VOLUNTEER EXPERIENCE**

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- Participated in INUP-i2i familiarization workshop on Nanofabrication Technologies held at IIT Madras on June 20-21, 2022.
- Volunteer at Women of IIT Network (WIN)-Aspire for Her
- Short-term course in German Level-I under Foreign Language Program at IIT, Kanpur (Jan-Dec 2020)
- Participated in Antardhvani Cultural Festival (2015), University of Delhi presenting various innovative Physics experiments related to light.
- Add-on course on Operations Research at Miranda House, University of Delhi from Aug 2013-May 2014.

## **PROGRAMMING SKILLS AND SOFTWARE**

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C++, LabVIEW, Origin, LaTeX, Microsoft Word, Excel, PowerPoint