NIKITA SINGH

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EDUCATION

Master in Science (Physics)

Pandit Nagina Smarak Mahavidyalaya Azamgarh - UP, India Department **Rank: 1** July 2022- July 2024

CGPA: 7.96 /10

Bachelor in Science

J.B.M. Degree College 52% Chaurichaura - UP, India

July 2014- June 2018

RESEARCH EXPERIENCE

• Research Internship: Dye Sensitized Solar Cell, working on counter electrode part.

Supervisor: Prof. Bhaskar Bhattacharya

• Master's Thesis: "Synthesis of Graphene using the electrochemical method".

Supervisor: Prof. Bhaskar Bhattacharya

I focused on synthesizing graphene using electrochemical methods and characterizing its structural properties through Raman spectroscopy and X-ray diffraction (XRD).

PROJECT EXPERIENCE

Project Climate Cues

Co-developed the 'Climate Cues' web app, a project aimed at raising awareness about climate change and carbon footprints. https://mycoolglobe.onrender.com/

 ${\bf Mentor: Mrs. \ Sapna \ Jhawer \ , \ } \textit{Vigyanshaala International accelerator programme}$

• Earthen Stove Development

Led a team to develop an earthen stove to reduce indoor pollution and air pollution and alleviate health impacts on women in villages.

Mentor: Mr. Anil Kumar Tripathi (Science Communicator); National Children Science Congress (NCSC)

PUBLICATION

In preparation: "Synthesis Of Graphene As A Counter Electrode For Better Efficiency Of Dye Sensitized Solar Cell (DSSC)"

CONFERENCES

2nd International Conference on Energy Materials and Devices, MMV, BHU, Varanasi, India [March 2024]

- *Oral Presentation* in **International Conference on Climate Change, Disaster Management** and Environmental Sustainability, *Jamia Millia Islamia*, New Delhi, INDIA. [21-22 February] Presented paper entitled "Impact of Climate Change on Agriculture"
- Poster Presentation in International Conference on Advancement in Functional Materials (ICAFM-2024), VBS Paranuchal University, Jaunpur, UP, India. [8-10 February]
 Presented my poster entitled "Impact of Climate Change on Agriculture",
- National Symposium On Advancements In Various Fields Of Physics

Attended this National Symposium organized by the *Association Of Indian Physicists (AIP)* [3rd September 2023]

• Webinar on "**Graphene Oxide** – **Prospects and Challenges**", Department of Physics, St, John's College, Agra. [11 May 2020], webinar delivered by Dr. Ajay Thakur, IIT, Patna.

SKILLS

- **Instrumental:** Electrochemical workstation, UV chamber, Centrifuge, Ultrasonic Heater, Magnetic stirrer, Spin coater, Desiccator, Chronopotentiometery, Raman, XRD
- Digital: Matlab, Microsoft Word, Powerpoint and Excel, Latex
- **Soft:** Science Communication, Documenting scientists' stories, Leadership Skills, Teamwork.

TRAINING

Internship in "*Research Training*", MSME –Technology Development Center (PPDC), Online I learned basics about paper writing through this internship on 16 January -16 February 2024

• SHE FOR STEM KALPANA *Incubator fellow*, Vigyanshaala International, [July-Oct. 2022] I got opportunity to develop the soft skills like communication skills ,growth mindset, critical thinking, scientific temperament, problem solving skill.

PUBLIC ENGAGEMENTS EVENTS

- Delivered a talk on Communicating with children and youth: What and How?
 Our Experience and suggestion on 19 May 2024 for Science for society, Jharkhand
- o Delivered a talk on the **Challenges and possibilities of students and youth in the present time** on 16 June 2024. for science for society, Jharkhand.

TEACHING EXPERIENCE

Taught science, mathematics to High School Students for board exam preparation. I taught the basic concept of electricity, and magnetism to my students.

EXTRA-CURRICULAR ACTIVITIES

- Company- ScienceOverse worked as a Coordinator of the media and communication department: Organized masterclasses and invited guest speakers. Managed social media content.
 - Documenting scientists' stories: Published in AIP bulletin.
 - Narrating scientific facts: Published in Hindi article in the book "Kan Kan Me Vigyan".

VOLUNTARY EXPERIENCE

Taught unprivileged children who could not afford to enroll in good quality schools at the NGO named "Light De Literacy".

REFERENCES

- Dr. Chandra Kumar, Assistant Professor at Universidad of Mayor, Santiago, CHILE, Email: chandra@alumnos.ucn.cl; Phone no. (+56)- 928728904
- Dr. Pukhrambam Dipak, Assistant Professor at Chandigarh University, Punjab, INDIA Email: pukchaokhuman@gmail.com; Phone no. (+91)- 8839192644