# Meenal Agrawal

Research Fellow Energy Storage Materials



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# Skills \_\_\_\_\_



### Interests –

Energy Storage Systems

Traveling

Philosophy and Music

Dance

Reading books

## References -



Prof. Deepika Choudhury

dee

deepika.choudhury@iitrpr.ac.in



Dr. Mahesh Chandra

mahesh22bhatt@gmail.com

### **Education**

2018 - 2020 **M.Sc., Physics** Rupnagar, Punjab CGPA: 8.6

2015 - 2018 B.Sc., Physics Maharani's College Jaipur, Rajasthan Percentage: 83.40 %,First rank holder, Gold medalist

#### **Research Experience**

2020 - 2022 Research Fellow

- Worked on development of polyanionic based cathode materials for sodium ion batteries.Expert in synthesis of electrodes by solidstate method and hydrothermal method, operating muffle and tube furnaces, ultra-sonification technique, slurry making by magnetic stirring, electrode coating by doctor blade method, calendaring of electrodes, coin cell fabrication inside glove box.
- I have done literature survey on phosphate-based cathode materials and TMDs based anode materials. I have experience of synthesizing NASICON based- cathode material, TMDs based anode material via solid state and hydrothermal method. I have prepared 2016, 2032-coin cells in argon environment inside glove box. I worked on Neware battery tester and VMP3 electrochemical workstation for electrochemical characterization of coin cells.

#### 2018 - 2020 M.Sc. Projects

- Pursued a long-term project on Quantum Entanglement, Bell Inequality, EPR paradox under the supervision of Prof. I.S. Tyagi at IIT Ropar.
- Pursued a short-term project on the "AUTOMATIC DRIP IRRIGATION SYSTEM" under the supervision of Prof. Rakesh Kumar at IIT Ropar.

#### Fellowship and National Level exams qualified

July 2015 DST Inspire fellowship from July 2015-May 2020

May 2015 GARGI award cum Scholarship June 2015

#### <mark>Ski</mark>lls

- Languages: C, MATLAB, FORTRAN
- Operating System: Windows, Linux
- Data plotting software: Origin, BTSDA for GCD plots
- Data analyzing software: Fullprof software, Match, EC lab software
- Other tools: Microsoft office, PowDLL software, latex

#### **Future Research Interests**

• In-depth understanding of electrode processes involved in existing and future generation sodium-ion battery electrode materials using state of the art characterization technique.

IIT,ROPAR