Praveen Kumar E

M.Tech Energy Science and Technology
Energy Institute Bengaluru, a center of RGIP, JAIS, AMETHI
(An institute of national importance established under parliament act)

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EDUCATION AND TRAINING

2021 **Master of Technology (CGPA-7.65/10)**
Energy Science and Technology
Energy Institute Bengaluru, a center of RGIP, JAIS, AMETHI
Bengaluru, Karnataka, India
https://www.rgipt.ac.in/en/post/home

2019 **Bachelor of Technology (CGPA-7.2/10)**
Nano Technology
Bharath Institute of Higher Education and Research
Chennai, Tamilnadu, India
https://www.bharathuniv.ac.in/

RESEARCH EXPERIENCE

Present works

Topic I: Fabrication of a nanostructured cathode material for Zinc Ion Batteries

- Synthesizing a cathode material by Hydrothermal method.
- Physical Characterizations
- Cell Fabrication and assembly
- Cell Electrochemical Characterizations.

Topic II: Efficient catalysts for Urea Oxidation Reaction.

- Synthesizing and analyzing the change of catalytic property of the as synthesized material by varying the concentration of the precursor.
- Characterization of the as prepared catalyst.
- Evaluation of ORR, OER, and HER performances of transition metal Oxide material.

Undergraduate Thesis (2017-2018)

Title: Synthesis of Metal Oxide Nanocomposites and studying their Photocatalytic properties for the degradation of methylene blude dye (A toxic waste released from textile industry)

Undergraduate-level research (2016—2017)

Title: Synthesis of metal oxide thin film for the application of corrosion USING RF Magnetron Sputtering

PUBLICATIONS

Papers Under Preparation

Title I: Efficient catalysts for Urea Oxidation Reaction

Title II: Fabrication of a nanostructured cathode material for Zinc Ion Batteries

PATENTS

Title: "Electric Power Generation by Flexible Speed Breaker"

Patent Number: 202141048991

TECHNICAL SKILLS

Instruments (Experiential learning)	• Magnetron Sputtering (Both DC and RF)
Laboratory Techniques	• Electrochemical workstation (Biologic VSP), • Spin Coating, DIP Coating • UV-VIS Spectrophotometer • photoluminescence spectroscopy
Software	• MS Office, Origin Pro, Image J Viewer, MATLAB, Abaqus (FEA) Adobe Photoshop. • X'-Pert High Score (XRD), XPSPEAK4.1,

ACADEMIC ACTIVITIES

- Organized college events – Convocation, National conference, etc.
- Participated on INUP-i2i "User Awareness Workshop on Fabrication and Characterization Facility for Nanotechnology" at NRF, IIT Delhi, 8th – 9th Feb. 2022
- Attended webinar on "Advances in Corrosion Engineering and Electrochemical Characterization Techniques" at **National Institute of Technology**, Raipur.
- Participated Global Online Workshop on "Energy Buildings & Sustainable Transport" Jointly Organized by **Exeter, U.K. and Vellore Institute of Technology**, India on 16th &17th -July-2021
- Paper Presentation in **Nano-meet 2017**, "**Synthesis of Metal Oxide Thin film for the application of Corrosion Using RF Sputtering**" National Seminar Anna University, Chennai.
- Paper Presented titled "**Study of Microstructural and Properties of Nanostructured TiN thin Films prepared by RF reactive magnetron sputtering**" in an International Symposium at **Hindustan University**, Chennai.
- Attended "International Conference on Nanoscience and Nanotechnology (**ENCON)** at Hindustan University, Chennai.
- Participated in Mini Colloquium on Nanofabrication Technologies in **VIT University**, Vellore.
- Attended National Workshop on Nano Science and Nano Technology **Pondicherry University.**

PERSONAL INFORMATION

Date of Birth	: 12th December 1996
Nationality	: Indian
Marital Status	: Single
Languages Known	: English & Tamil (to read and write)
Residential Address	: 29/11, Kanthappan Street, Triplicane, Chennai, 600005

EXTRA-CURRICULAR ACTIVITIES

- Volunteer in Sreenivas Young men association (SYMA), a non-profit Free Education organization for students' growth.
- Member of B.Tech Cricket team and in carrom team 2012-2018, BIHER