Dr. ADITYA KUMAR SINGH

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Assistant Professor in Mechanical Engineering

With over 11 years of experience in teaching, research and academic administration, I have successfully mentored and taught hundreds of students. My efforts have resulted in increase in student satisfaction and improvement in their overall academic performance. In the last 3 years, I have also successfully tendered and purchased laboratory equipment and machines for more than $602,000 and managed student hostel operations.

WORK EXPERIENCE

1. ***Assistant Registrar at Ghani Khan Choudhury Institute of Engineering and Technology.***

Malda, West Bengal, India
02/2022 – Present

- Description: My job deals with academic administration, tendering to purchase laboratory equipment, hostel management etc. Currently working in academic's section where the job deals with compliance of regulatory institutions like AICTE, NBA, NICE etc. admission of diploma and B-Tech students, examination and other works in academic section. Previously I had effectively led the store and purchase department, contributing to the purchase of laboratory items worth $602,000 and ensuring compliance with Government of India norms. As a member secretary in HMC, I was involved in the Institute's first hostel management committee, overseeing accommodation and food quality for 500+ students, driving improvements and satisfaction.

2. ***Assistant Professor at College of Engineering and Management, Kolaghat.***

West Bengal, India
07/2013 -02/2022 (8.5 years)

- Description: My job deals with teaching, research, mentoring of students, laboratory session, and academic administration. I have taken lecture classes on courses like engineering thermodynamics, fluid mechanics, engineering mechanics, refrigeration, internal combustion engine and principles of renewable energy systems. Streamlined academic administration processes through efficient use of Microsoft PowerPoint, Word, and Excel, reducing processing time by 50%. Guided more than 6 undergraduate projects successfully.

EDUCATION

- **PhD in Mechanical Engineering**
  - National Institute of Technology, Sikkim (NIT Sikkim), Sikkim, India.
  - CGPA: 9.10
  - 08/2016 - 08/2024
  - Thesis Title: "*Experimental investigation to find the effects of blending of biodiesel and alcohol with diesel on VCR diesel engine"*.
  - I have conducted experimental research on Bio fuels blending effects on VCR diesel engine performance and emission characteristics. In the process, I have published 4 research papers and presented my research work at various international conference organized in India.

- **Master in Engineering in Mechanical Engineering**
  - Jadavpur University, Kolkata, West Bengal, India.
  - CGPA: 8.18
  - 08/2011 - 07/2013

- Admitted to the Master's degree course through the All India Gate 2011 exam. Passed with first division.
- Project: Renovation of Bomb Calorimeter to find the calorific value of fuel.

➢ **Bachelor of Technology in Mechanical Engineering**

- Biju Patnaik University of Technology, West Bengal, India.
- CGPA: 6.78
- 08/2005 - 07/2009
- Admitted to the Engineering course after passing the Orissa Joint Entrance exam. Passed the course with First Division.

PUBLICATIONS

- Singh A.K, Barman S, Mondal P, Barman N. 2024. Reduction of Emissions in Diesel Engine using Blended Diesel with Edible Bran Oil. Emiss. Control Sci. Technol. (2024). SCI Indexed https://link.springer.com/article/10.1007/s40825-024-00238-3
- Singh A.K, Mishra V.P, Barman S, Mondal P. 2023. Comparative study of performance and emission characteristics for different blended diesel fuel. Materials Today: Proceedings, 90(1) 273-278. Scopus Indexed. https://doi.org/10.1016/j.matpr.2023.07.191
- Singh A.K, Mishra V.P, Barman S, Tiwari K, Mondal P and Barman N. 2023. Study of Emission Characteristics and Performance Analysis of Ethanol Diesel Blend. NanoWorld J, 9(S1): S369-S373. Scopus Indexed. https://doi.org/10.17756/nwj.2023-s1-072
- Singh A.K, Mishra V.P, Barman S, Mondal P . 2024. Enhancing the Performance and Emission characteristics of Butanol-Diesel Blend with Ethanol. International Journal of Emerging Technology and Advanced Engineering, 14(1) 78-84. Scopus Indexed. http://dx.doi.org/10.46338/ijetae142324_11

CONFERENCES

- 2nd International Conference on Energy resources and technologies for sustainable development, IIEST Shibpur, 27– 28 April 2023 (Paper presented).
- International Conference on Innovations in Mechanical and Materials Engineering (IMME-2022). MNIT Allahabad 4-6 Nov 2022. (Paper Presented).
- THIRD International Conference on Future Technologies in Manufacturing Automation, Design & Energy. NIT Puducherry, India during December 14-16, 2022. (Paper Presented).
- 27th National Conference on Internal Combustion Engines and Combustion (NCICEC 2022), VIT Vellore, Nov 5-7, 2022 (Paper Presented).
- National Conference on Recent trends in Green Energy Technologies, Pondicherry University, 8-9 Dec 2022 (Abstract Submitted).
- International conference on recent Trends in Science and Technology (ICRTST 2013), CEM Kolaghat, 27-29 Dec 2013 (Paper Presented).

COURSES TAUGHT

- Engineering Thermodynamics
- Engineering Mechanics
- Fluid Mechanics
- Refrigeration and Air Conditioning
- Principles of renewable energy
- Turbo Machines
- Internal combustion engine.

ACADEMIC ADMINISTRATION

- Head of store and purchase section at GKCIET, Malda
- Assistant Registrar, Academic Section.
- Member secretary, Central tender and purchase committee at GKCIET, Malda.
- Member Secretary, Hostel management council at GKCIET, Malda.
- Student Hostel Warden at CEM, Kolaghat.
- Member of internal complain committee at CEM, Kolaghat.
- Sports in charge at CEM, Kolaghat.
- National cadet corps officer at CEM, Kolaghat.
- Grievance Cell Member at CEM, Kolaghat.

SKILLS

University Teaching, Engineering, Educational Administration, Research, Honesty, Mentoring, Microsoft PowerPoint, Excel and Word, Sincerity, Mentoring, Programming.

PROFILE LINK

Orcid- https://orcid.org/0000-0002-5177-5020
Scopus- https://www.scopus.com/inward/authorDetails.url?authorID=57212628148&partnerID=MN8TOARS
Google Scholar- https://scholar.google.com/citations?user=KCOTetQAAAAJ&hl=en