

Dr. DEEPAK SINGH

Mechanical Engineering | Teaching • Research • CFD/FEA • Design

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PROFESSIONAL PROFILE

Mechanical Engineering academic and researcher with a strong background in teaching, engineering analysis, quality management, design, manufacturing and computational engineering. Experienced in CFD/ANSYS-based engineering analysis and renewable-energy research, with peer-reviewed publications, a book publication, design registrations and faculty-development experience. Strong communication, teamwork and interdisciplinary problem-solving capabilities.

PROFESSIONAL EXPERIENCE

Assistant Professor (Mechanical Engineering) — I.E.T., Lucknow	Dec 2022 – Present
Teaching and academic responsibilities in Mechanical Engineering; involved in engineering research, CFD/ANSYS analysis and academic activities.	
Resource Person — UIET, Baba Sahab Bhim Rao Ambedkar University, Lucknow	Mar 2019 – Dec 2022
Academic and technical responsibilities in engineering education and related institutional activities.	
Assistant Professor (Mechanical Engineering) — Dr. Shakuntala Misra National Rehabilitation University, Lucknow	Aug 2017 – Feb 2019
Teaching and academic responsibilities in Mechanical Engineering.	
Assistant Professor (Mechanical Engineering) — Dr. M.C. Saxena Engineering College, Lucknow	Jul 2009 – Jul 2017
Teaching and academic responsibilities in Mechanical Engineering.	
Assistant Manager (Quality Control) — P.N. International, Lucknow	1 year
Quality-control responsibilities in an industrial environment.	
Graduate Engineer Trainee — D.S. Constructions, Delhi	1 year
Engineering trainee responsibilities in maintenance of construction equipment.	

EDUCATION & PROFESSIONAL QUALIFICATIONS

Qualification	Institution	Year / Result
Ph.D. — Mechanical Engineering	I.E.T. Lucknow (A.K.T.U.)	2026
M.Tech. — Mechanical Engineering	I.E.T., Lucknow (U.P.T.U.)	2015 7.6 CGPA
PGDQM — Post Graduate Diploma in Quality Management	University of Lucknow	2008 75.5%
B.Tech. — Mechanical Engineering	Northern India Engineering College, Lucknow (U.P.T.U.)	2006 72.44%
Intermediate	U.P.	1999 61.8%
High School	U.P.	1997 66.8%

SELECTED RESEARCH PUBLICATIONS

- D. Singh, R. Kumar, and S. Sinha, “CFD-based comparative evaluation of Savonius rotors with 2, 3, and 4 blades at low wind velocity under varying aspect ratios,” *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*, pp. 1–15, 2025. DOI: 10.1177/09544089251398907.
- D. Singh, R. Kumar, and S. Sinha, “Design and performance characterization of hybrid vertical axis wind turbine with Savonius and Gorlov blades in low wind regimes: Integrating CFD simulations and experimental approach,” *Proc. IMechE Part C: J. Mechanical Engineering Science*, pp. 1–13, 2025. DOI: 10.1177/09544062251323494.
- A. Namdev, R. Purohit, M. Baghel, A. Kumar, D. Singh, and M. R. Purohit, “Abrasive wear performance of epoxy nano composite containing GNP,” *AIP Conference Proceedings*, vol. 3263, no. 040002, pp. 1–10, 2025. DOI: 10.1063/5.0261404.
- D. Singh and R. Kumar, “Stress analysis of engine mounting assembly of a three wheeler,” *IOP Conference Series: Materials Science and Engineering*, vol. 691, no. 012064, pp. 1–8, 2019. DOI: 10.1088/1757-899X/691/1/012064.
- P. P. Das, V. Chaudhary, R. K. Singh, D. Singh, and A. A. Bachchan, “Advancement in hybrid materials, its applications and future challenges: A review,” *Materials Today: Proceedings*, 2021. DOI: 10.1016/j.matpr.2021.03.009.
- H. Kumar, R. Arora, P. K. Arora, V. S. Pandey, G. Moona, and D. Singh, “Effect of nation-wide lockdown due to Covid-19 over industrial pollution in Delhi, India,” *Materials Today: Proceedings*, 2021. DOI: 10.1016/j.matpr.2021.01.264.
- K. K. Gupta, D. Singh, and P. K. Singh, “A genetic algorithm approach for minimizing total inventory cost in a job-shop manufacturing unit,” *International Journal of Research in Engineering and Technology*, vol. 4, no. 10, pp. 44–49, 2015.

BOOK PUBLICATION & DESIGN REGISTRATIONS

- Book: “Mechanical & System Engineering,” co-authored with D. Rajasekar, Prabhakaran and Rohit Sahu, January 2023.
- Design Registration: Vertical Axis Wind Turbine (VAWT), Registration No. 420488-001, dated 18 June 2024, registered under the Designs Act, 2000.
- Design Registration: IOT Based Additive Manufacturing Device, Registration No. 408853-001, dated 27 February 2024, registered under the Designs Act, 2000.

FACULTY DEVELOPMENT PROGRAMS

- Next Generation Design using Autodesk Fusion assisted by Artificial Intelligence — Chaitanya Bharathi Institute of Technology (A), Hyderabad, Aug 03–08, 2026.
- Advanced Design & Manufacturing using Autodesk Fusion — Chaitanya Bharathi Institute of Technology (A), Hyderabad, Aug 04–09, 2025.
- Future Prospects of Green Technologies with AI and ML Applications — E&ICT Academy, NIT Patna, supported by MeitY, Govt. of India, July 14–25, 2025.
- Faculty Enablement Program — Infosys, May 19–23, 2025.
- NEP-2020: Science and Technology — NITTTR Chandigarh, May 13–17, 2024.
- Recent Innovations in Renewable Energy Technologies and Smart Grids — Bansal Institute of Engineering & Technology, Lucknow, June 8–12, 2020.
- Outcome Based Education and Accreditation — IILM College of Engineering & Technology, May 25–29, 2020.
- Recent Innovations and Technologies in Electric Vehicles — GATES Institute of Technology, Andhra Pradesh, June 8–12, 2020.

PROFESSIONAL TRAINING & WORKSHOPS

- Computational Fluid Dynamics using ANSYS Workbench & Fluent with Introduction to CAD (3D Modeling) — IFS Academy, Pune | Jul 2021 – Nov 2021
- Three-day workshop on ANSYS simulation software — I.E.T. Lucknow.
- Two-day workshop on Computational Fluid Dynamics for Beginners — I.E.T. Lucknow.
- Three-day training on Diesel Fuel Injection System & Gasoline Systems — Bosch Training Centre, Bangalore.
- Training program on Oil Conservation — Petroleum Conservation Research Association, Lucknow.
- Three months training on Quality Control & Assurance — PTC Industries Ltd., Lucknow.
- One month training — Hindustan Aeronautical Limited, Lucknow.
- One month training in Boiler Maintenance & Turbine Maintenance Department — National Thermal Power Corporation, Unchahar.

SOFTWARE & TECHNICAL SKILLS

- MS Office and Microsoft Excel
- AutoCAD 2004
- ANSYS / engineering simulation
- Computational Fluid Dynamics (CFD)

LEADERSHIP & EXTRA-CURRICULAR ACTIVITIES

- President, Mechanical Engineering Society “Mech Power” during graduation.
- Active member of college cricket team; participated in college-level tournaments and won two tournaments.
- Participated in college-level debate, poetry and singing events.
- Won 9th prize in a G.K. competition organized by Young Friend’s Association.

PERSONAL DETAILS

Date of Birth	15 February 1983
Nationality	Indian
Gender	Male
Marital Status	Married

DECLARATION

I hereby declare that the information provided above is true to the best of my knowledge and belief.

Place: Lucknow Deepak Singh