Curriculum Vitae

Mr. Sambhrant Srivastava

Assistant Professor, Mechanical Engineering Department,
Rajkiya Engineering College, Azamgarh.

- **E-mail:** sambhrantsrivastava4@gmail.com
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- **Permanent Adress:** 419-T, Ramjnakinagar, Bashartpur, Gorakhpur, Uttar Pradesh - 273004

Professional Experience:

- Assistant Professor (Mechanical Engineering Department), Rajkiya Engineering College Azamgarh, U.P, December 2017 –till date.
- Assistant Professor (Mechanical Engineering Department), JIMS Technical Campus Greater Noida, June 2015 –November 2017

Educational Qualifications:

- Ph.D. pursuing (Mechanical Engineering), N.I.T. Patna, 2021- till now (Status: Completed Pre-submission: Design, fabrication, and analysis of bio-composite materials for dental implants)
- M.E. (2012-14) (Thesis Title: Design analysis of Mixed Flow Impeller using ansys and its validation using artificial neural network), Design of Mechanical Equipment's, BIT MESRA, Ranchi.
- B.Tech. (2008-12), Mechanical Engineering, Accurate Institute of Management and Technology, Uttar Pradesh Technical University
- 12^{th} (2007) ISE board, Springer public school Gorakhpur.
- 10^{th} (2005) CBSE, St. Xaviers Public School Kazakpur, Gorakhpur.

Books Published:

1. Mixed Flow Pump Impeller Reference Book a Guide to Design, Modelling and Analysis. Author(s)Sambhrant Srivastava,Department of Mechanical Engineering, Rajkiya Engineering College, Azamgarh, India.ISBN 978-93-5547-675-3 (Print).ISBN 978-93-5547-680-7 (eBook).DOI: 10.9734/bpi/mono/978-93-5547-675-3.
2. A Text Book of DESIGN THINKING, Mr. Sambhrant Srivastava , Mr. Vijay Kumar , Dr. Pramod Kumar Srivastava . Vayu Education of India, 11 October 2022,ISBN: 978-9394962576.
3. A Text Book of INDIAN TRADITIONS, CULTURAL AND SOCIETY, Mr. Vijay

Kumar , Mr. Sambhrant Srivastava, Dr. Pramod Kumar Srivastava , Vayu Education of India, 11 October 2022,ISBN: 9789394962569, 9394962565

Articles Published in SCI/SCIE/SCOPUS/UGC indexed Journals

1. S. Srivastava et al. 2024; Material FCB. 2024. Fibre-Reinforced Chitosan Bio-composite Material. 1(2):401–410.
2. Srivastava S., Sarangi SK, Singh SP. 2024. Investigation of Water Absorption and Porosity of Nano-Biosilica, Jute, and Bamboo Fiber-Reinforced Chitosan Biocomposite Materials. Russ Phys J. https://doi.org/10.1007/s11182-024-03190-5
3. Srivastava Sambhrant, Sarangi SK, Singh SP. 2024. Water Absorptivity and Porosity Investigation of Nano Bio-silica, Hemp, and Bamboo Fibre-reinforced Chitosan Bio-composite Material. Silicon [Internet]. https://doi.org/10.1007/s12633-024-03027-3
4. S. Srivastava and S. K. Sarangi, "A relationship of tightening torque and initial load of dental implant of nano bio-silica and bamboo fiber-reinforced bio-composite material," Comput. Methods Biomech. Biomed. Engin., pp. 1–15, 2024.
5. S. Srivastava, V. Kumar, P. Yadav, B. Singh, S. K. Singh, and S. K. Sarangi, "Retightening of Internal Hexagonal and Conical Dental Abutment Connections: A FEA Analysis.," J. Osseointegration, 2024.
6. S. Srivastava and S. K. Sarangi, "Study of Torque Characteristics and Screw Loosening in Titanium Alloy and Fibre-reinforced Composite Dental Implants," Compos. Mech. Comput. Appl. An Int. J.15(1):79-92,2024.
7. B. Singh *et al.*, "Performance Improvement and Optimisation Using Response Surface Methodology (Central Composite Design) of Solar Photovoltaic Module with Reflector and Automatic Water Cooling," *Process Integr. Optim. Sustain.*, vol. 7, no. 1, pp. 343–357, 2023
8. S. Srivastava and S. K. Sarangi, "An Optimized Dental Implant Model Using Finite Element Analysis and Design of Experiment.," Int. J. Oral Maxillofac. Implants, vol. 38, no. 1, 2023.
9. S. Srivastava and S. K. Sarangi, "Investigation of mechanical properties and long-term efficacy of chitosan-reinforced bamboo and nano bio-silica-reinforced composite materials for dental implants," *Mech. Adv. Mater. Struct.*, vol. 0, no. 0, pp. 1–11, 2023.
10. V. Kakulapati, G. S. Gill, R. Chandramma, S. Srivastava, M. Sharma, and V. Kumar, "Importance of Artificial Intelligence in Neural Network: Speech Signal Segmentation Using K-Means Clustering with Kernelized Deep Belief Networks," *Int. J. Intell. Syst. Appl. Eng.*, vol. 11, no. 3s, pp. 144–149, 2023.
11. S. P. Singh, B. Singh, V. Kumar, S. Srivastava, P. Yadav, S. Kumar, and A. Bhaskar,

"MODAL AND HARMONIC RESPONSE FINITE," vol. 6, no. 1, pp. 483–488, 2019.

12. S. P. Singh, B. Singh, V. Kumar, P. Yadav, and S. Srivastava, "FREE VIBRATION AND HARMONIC RESPONSE ANALYSIS OF HEMP FIBRE COMPOSITE USING FINITE ELEMENT," vol. 6, no. 2, pp. 598–603, 2019.
13. S. P. Singh, V. Kumar, P. Yadav, S. Srivastava, B. Singh, K. Singh, and A. Bhaskar, "FEM Modal Analysis of Jute and Hemp Natural Fibre Reinforced Composite," vol. 8, no. 12, pp. 262–271, 2018.
14. S. Srivastava, A. K. Roy, and K. Kumar, "Optimization of mixed flow pump impeller blade thickness using artificial neural network," *Int. J. Appl. Eng. Res.*, vol. 9, no. 26, pp. 8815–8817, 2014.

Articles Published in International/National Journals.

1. P. Yadav, B. Singh, S. Kumar, S. Srivastava, V. Kumar, and V. Narayan, "Energy, Exergy, Economic and Enviroeconomic Analysis of an Eco-Friendly Solar Still Made of Locally Available Materials," vol. 7, no. 4, pp. 452–461, 2022.
2. V. Kumar and S. Srivastava, "Vibration-induced biodynamic response of a human hand arm model," vol. 7, no. 5, pp. 13–23, 2022.

Book Chapter's

1. A. Bhaskar, P. Yadav, S.P. Singh, V. Kumar, S. Srivastava, S.K. Singh, B. Singh, and A. Dutt, "Artificial Intelligence in Healthcare Management," in Reinventing Technological Innovations with Artificial Intelligence, pp. 26-47, 2024.
2. V. Kumar, S. Srivastava, S. K. Singh, S. K. Sarangi, and A. Maurya, "Methods and Application of 3D Printing in Implantable Medical Devices," in Sustainable Computing: Transforming Industry 4.0 to Society 5.0, S. Awasthi, G. Sanyal, C. M. Travieso-Gonzalez, P. Kumar Srivastava, D. K. Singh, and R. Kant, Eds. Cham: Springer International Publishing, 2023, pp. 207–227. doi: 10.1007/978-3-031-13577-4_12.
3. P. Yadav, B. Singh, A. Bhaskar, S. Srivastava, and S. K. Singh, "Role of Artificial Intelligence in Renewable Energy Management for Sustainable Development," pp. 108–124, 2024, doi: 10.4018/979-8-3693-1062-5.ch006.
4. S. Srivastava, V. Kumar, S. K. Singh, P. Yadav, B. Singh, and A. Bhaskar, "A review on application of artificial intelligence in mechanical engineering," Mach. Learn. Tech. Ind. Appl., pp. 29–46, 2024, doi: 10.4018/979-8-3693-5271-7.ch002.

Articles Published in Conference Proceedings.

1. S. Srivastava, V. Kumar, V. K. Gupta, R. Kumar, V. K. Rawat, and A. K. Nishad, "Comparison of Fins in IC Engine Using CFD Analysis," in 2nd International Conference on Smart Sustainable Materials and Technologies (ICSSMT 2023), 2024, pp. 19–30.
2. H. T. Hazim, C. Kaur, S. Srivastava, I. Muda, H. C. Anandaram, and M. S. Al Ansari, "A

novel vehicle tracking approach using random forest classifier for disaster management system along with R-CNN for enhancing the performance," AIP Conf. Proc., vol. 2930, no. 1, p. 20024, 2023.

3. A. Gangwar, S. Srivastava, A. Kumar, and M. Umar, "Optimization and fabrication of Load carrying device design using ANSYS DO Module," IOP Conf. Ser. Mater. Sci. Eng., vol. 1259, no. 1, p. 12013, Oct. 2022.
4. S. Srivastava, A. Kumar Roy, and K. Kumar, "Design validation & stress analysis of mixed flow pump impeller blades under applied uniformly distributed and uniformly varying loads.," Mater. Today Proc., vol. 5, no. 2, Part 1, pp. 4646–4652, 2018
5. S. Srivastava, A. K. Roy, and K. Kumar, "Design analysis of Mixed Flow Pump Impeller Blades Using ANSYS and Prediction of its Parameters using Artificial Neural Network," Procedia Eng., vol. 97, pp. 2022–2031, 2014.
6. S. Srivastava, A. K. Roy, and K. Kumar, "Design of a Mixed Flow Pump Impeller Blade and its Validation Using Stress Analysis," Procedia Mater. Sci., vol. 6, pp. 417–424, 2014,

Articles Presented in International/National Conference.

1. Comparison of Fins in IC engine using CFD Analysis, Sambhrant Srivastava, 2nd International conference on Smart Sustainable materials and technologies ,organized by CARE college of engineering, Trichy,Tamil Nadu, India 30-31st August 2023.
2. A review on Dental Implants Abutment Screw loosening; Sambhrant Srivastava, 20th ISME conference on Advances in mechanical engineering, department of mechanical engineering , IIT Ropar, 19th -20 May 2022.
3. Conventional Material Challenges in Dental Implants ;Sambhrant Srivastava and Dr. Saroj Kumar Sarangi, Mechanical Engineering Department, PRIME 2021 conference, organized by NIT Patna.

Patent

1. S. Srivastava, et al., "Composite Grass Straw Wrapping Sheet," Application No. 202311072025 A, Patent Publication Date: Nov. 24, 2023.
2. S. Srivastava, et al., "MODIFIED VEHICLE SMOKE CLEANER," Application No. 202311071781 A, Patent Publication Date: Nov. 24, 2023.
3. S. K. Sarangi and S. Srivastava, "Dental Implant Assembly with Improved Locking Mechanism," National Institute of Technology, Patna, Patent Number 434134, May 9, 2022.

MOOCs Courses

1. Social innovation in Industry 4.0 NPTEL 12 week course/FDP,July to October 2023.
2. AICTE Teachers training/FDP 8 module course July 2022.
3. Design Practice NPTEL 8 week course/FDP , Feb -April 2021.

Invited /Expert Lectures

1. Expert Lecture and Coordinator of One week Induction Programme for B.tech First year students at Rajkiya Engineering College Azamgarh from 1st to 6th December 2020.

FDP/Seminar/Workshop/Training etc.:

1. One week workshop on Internet of things from 21-25th November 2023 in Mechanical Engineering Department at Rajkiya Engineering College Azamgarh ***(Organized).***
2. One-Week Online Faculty Development Program (FDP) on "Development of Academic Leadership in Higher Education Under NEP-2020" organized by Department of Applied Sciences & Humanities, Rajkiya Engineering College Mainpuri U.P. from October 30 to November 03, 2023
3. Four weeks online technology based "Entrepreneurship Development Programme", sponsored by NEB, DST and organized by IIC cell of G.L Bajaj from 10th July to 04th August 2023.
4. Two weeks FDP Programme on "Entrepreneurship (FEDP)", organized by IIC cell Galgotia university and funded by DST from 3-17th August 2023.
5. One-week Self-financed short term training program on "Emerging trends and challenges in biomechanics and biomaterials" organized by National Institute of Technology Raipur form 25th July -30th July 2023.
6. One-week FDP program on "Innovations in Mechanical Engineering and Technology" from 2th Jan -06 Jan 2023, organized by Mechanical Engineering Department and Industry Institute Cell at Rajkiya Engineering College Azamgarh ***(Organized).***
7. CATIA V5 Design training from 19th -24th December 2022, organized by ALTEN technologies and Rajkiya Engineering College Azamgarh.
8. One Day National Workshop on "Sustainable Technology Development for Energy & Water Sector (STDEWS-2022)" jointly organized by Department of Mechanical & Civil Engineering, KIPM College of Engineering & Technology, Gorakhpur (U.P.) and Indian Desalination Association (InDA) on 24th November 2022 in association with AKTU, Lucknow & MMMUT, Gorakhpur.
9. Faculty Development Programme on "Advances in Material Processing and Additive Manufacturing" organized by the Electronics and ICT Academy at PDPM IIITDM Jabalpur during Sept. 01-10, 2022 under the "Scheme of financial assistance for setting up of Electronics and ICT Academies" of the Ministry of Electronics and Information Technology (MeitY), Government of India and recognized by AICTE/UGC.
10. One-month Professional Training Gorakhpur from 31st may 2022 to 28th June 2022 in AUTOCAD at NIELIT Gorakhpur.
11. One week FDP program on "Design for excellence: A step towards innovation" from 26-30Sept 2021, organized by Design innovation Centre of NIT Uttarakhand and IIT Roorkee.
12. FDP program on "Application of Novel material in biomedical" from 23/11/2021 to 27/11/2021, organized on ATAL academy platform by National institute of technology Patna.
13. FDP on "Recent Advancement in Mechanical Engineering" at Rajkiya Engineering College

Azamgarh held on 19-23 August 2019***(Organized).***

14. Five days FDP on "Application of optimization methods in Engineering" from 5th to 9th August 2019, organized at Rajkiya Engineering College Azamgarh
15. Two days Seminar on "Value Based Education" at Rajkiya Engineering College Azamgarh held on 25-26th July, 2019***(Organized).***
16. One day Workshop on Problem based and project-based learning, on 18th Feb 2020, organized by State project implementation unit-UP and Rajkiya Engineering College Azamgarh.
17. One day Workshop on Gender sensitization and women empowerment, on 18th Feb 2020, organized by State project implementation unit-UP and Rajkiya Engineering College Azamgarh.
18. FDP program on "Innovation and Optimization technique in Mechanical engineering" from 20th to 21st April 2020, organized at Rajkiya Engineering College Azamgarh
19. One week workshop on "Emerging Trends in Iot and Discrete process Modelling, Simulation and optimization" at Rajkiya Engineering College Azamgarh held on 30th March to 3rd April 2019***(Organized).***
20. One Week Workshop on "Hands-on-Training on ANSYS and MATLAB" at Rajkiya Engineering College Azamgarh held on 17-21st February, 2020***(Organized).***
21. Three Days "Gyan Technical Program" under Yantriki club, at Rajkiya Engineering College Azamgarh held on 05-07th October, 2018***(Organized).***
22. One Week Workshop on "Corporate Expectation and Academia" at Rajkiya Engineering College Azamgarh held on 15-19th September, 2018***(Organized).***
23. One Week "Startup Summit Program" at Rajkiya Engineering College Azamgarh held on 04-08th September, 2018***(Organized).***
24. Two days' workshop on "Outcome Based Education" held on 16th -17th March, 2018 at REC Azamgarh.
25. Three days sports meet from 22-24th March 2018 at Rajkiya Engineering College Azamgarh ***(Organized).***
26. Three days' workshop on "Entrepreneurship Awareness Camp" from 19th -21st April 2018 at RECAzamgarh ***(Organized).***
27. One week FDP on "Total Quality Management" held on 4th to 8th June 2018 at REC Azamgarh ***(Organized).***
28. One week Workshop on "Active Learning, Autonomy, Academic Governance and R & D" organized by IIT Roorkee, June 18th – 22nd, 2018.

Awards/Appreciation etc.

- **Certificate of Appreciation by Director of Rajkiya Engineering College Azamgarh in** *Innovation learning and technology in Pedagogy* **at 5th September 2019.**
- **Potential Reviewer in** - Journal of vibration engineering & technologies
  - Process integration and optimization for sustainability
  - Advances in Artificial Intelligence and Machine Learning
- **Editor in IIP book series of title:** Futuristic Trends in Mechanical Engineering

- **Guest Editor : Journal of polymer and composites in STM journal.**

Research Area:

- Composite materials
- Design of mechanical equipment's
- Medical Implants

Software Skills

1. SolidWorks
2. ANSYS
3. CATIA(Trained and certified in CETPA infotech Pvt. Ltd)

Subjects Taught:

- Strength of Materials
- Machine design
- Design Thinking

Administrative Responsibilities:

- Deputy Controller of Examination
- AISHE Coordinator
- EAP Coordinator (under TEQIP-III)
- Departmental Project Coordinator
- Class Coordinator
- In charge ALUMNI CELL
- NSS and NCC coordinator.