

Curriculum Vitae

Dr. Subhash Singh

Assistant Professor

Department of Manufacturing Engineering

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EDUCATIONAL QUALIFICATION

S. No.	Class	Specialization	Year	Name of College	Name of University
1.	10 th	Science Group	1995	M.Q. Inter College Seohara, Bijnor, U.P	U. P Board
2.	12 th	Science Group	1997	M.Q. Inter College Seohara, Bijnor, U.P	U. P Board
3.	B. Tech	Mechanical Engineering	2003	Kamla Nehru Institute of Technology Sultanpur, U.P	R.M.L. Awadh University
4.	M. Tech	Mechanical Engineering	2007	National Institute of Technology Kurukshetra	Deemed University
5.	Ph. D	Mechanical & Industrial Engineering	2017	Indian Institute of Technology Roorkee	IIT Roorkee

WORK EXPERIENCE

- **Teaching Experience:** Worked at **Mody Institute of Technology & Science (Deemed University)** as an Assistant Professor from 30th April 2007 to 30th August 2011.
- Worked in **Graphic Era University (Deemed University)** as an Assistant Professor from 1st September 2011 to 26th December 2012.
- Worked in **Vyas Institute of Higher Education, Jodhpur, Rajasthan, India** as an Assistant Professor from 26th December 2016 to 29th May 2017.
- I worked as an Assistant Professor in Mechanical Engineering Department in **Lovely Professional**

University, Jalandhar, Punjab, India from 26th June 2017 to 18th May 2018.

- I am currently working as an Assistant Professor in Manufacturing Engineering Department in **National Institute of Technology Jamshedpur**, Jamshedpur, Jharkhand, India since 24th May 2018.

AREA OF INTEREST

Subjects taught:

- Basic Mechanical Engineering
- Engineering Graphics
- Advanced Manufacturing Technology
- Material Science
- Un-conventional Machining Processes
- Machining and Machine Tools
- Power Generation
- Mechanical behavior of Materials

RESEARCH PUBLICATIONS

1. **Subhash Singh**, Kaushik Pal, Effect of surface modification on silicon carbide particles with nanocrystalline spinel LZO for enhanced damping and mechanical property, *Materials & Design* 82 (2015) 223–237; (Impact Factor-4.527); (<http://dx.doi.org/10.1016/j.matdes.2015.05.076>) (SCI Journal).
2. Gangaram Mandaloi, **Subhash Singh**, Pradeep Kumar, Kaushik Pal, Effect on crystalline structure of AISI M2 steel using copper electrode through material removal rate, electrode wear rate and surface finish, *Measurement* 61 (2015) 305–319; (Impact Factor-2.218); (<http://dx.doi.org/10.1016/j.measurement.2014.10.057>) (SCI Journal).
3. **Subhash Singh**, Kaushik Pal, Effect of surface modified silicon carbide particles with Al₂O₃ and nanocrystalline spinel ZnAl₂O₄ on mechanical and damping properties of the composite, *Materials Science & Engineering A* 644 (2015) 325–336, (Impact Factor-3.414); (<http://dx.doi.org/10.1016/j.msea.2015.07.057>) (SCI Journal).
4. Gangaram Mandaloi, **Subhash Singh**, Pradeep Kumar, Kaushik Pal, Effect on crystalline structure of AISI M2 steel using Tungsten-Thorium electrode through MRR, EWR, and surface finish, *Measurement* 90 (2016) 74-84; (Impact Factor-2.218) (<http://dx.doi.org/10.1016/j.measurement.2016.04.041>) (SCI Journal).

5. **Subhash Singh**, Kaushik Pal, Influence of UFG on damping and mechanical properties of the composite reinforced with nanocrystalline spinel $MgAl_2O_4$ -SiC core-shell microcomposites, *Materials Characterization* **123** (2017) 244-255; (<http://dx.doi.org/10.1016/j.matchar.2016.11.042>) (Impact Factor-2.892); (SCI Journal).
6. Pratip Roy, **Subhash Singh**, Kaushik Pal, Enhancement of mechanical and tribological properties of SiC and CB reinforced aluminium 7075 hybrid composites through friction stir processing, *Advanced Composite Materials* **26** (2017) 1-18 (<http://dx.doi.org/10.1080/09243046.2017.1405596>). (Impact Factor-1.407); (SCI Journal).
7. **Subhash Singh**, Kaushik Pal, Influence of texture evolution on mechanical and damping properties of SiC/Li₂ZrO₃/Al composite through friction stir processing, *Journal of Engineering Materials and Technology* **142**(2) (2020) 021011-(1-9) (DOI: <https://doi.org/10.1115/1.4045495>) (Impact Factor-1.141); (SCI Journal).
8. **Subhash Singh**, Kaushik Pal, Effect of texture evolution on mechanical and damping properties of SiC/ZnAl₂O₄/Al composite through friction stir processing, *Journal of Materials Research and Technology* (<https://doi.org/10.1016/j.jmrt.2017.07.006>) (Impact Factor-3.398) (SCI Journal).
9. **Subhash Singh**, Keerti, Kaushik Pal, Synthesis, characterisation of graphene oxide wrapped silicon carbide for excellent mechanical and damping performance for aerospace application, *Journal of Alloys and Compounds* **740** (2018) 436-445 (<https://doi.org/10.1016/j.jallcom.2017.12.069>) (Impact Factor-3.779); (SCI Journal).
10. **Subhash Singh**, Kaushik Pal, Investigation on microstructural, mechanical and damping properties of SiC/TiO₂, SiC/Li₄Ti₅O₁₂ reinforced Al matrix, *Ceramics International* (<https://doi.org/10.1016/j.ceramint.2020.10.068>) (Impact Factor-3.830); (SCI Journal).
11. **Subhash Singh**, Vinay Panwar, Kaushik Pal, Synthesis and characterization of micro-composites: For enhanced electrochemical properties, *Surfaces and Interfaces* **11** (2018) 107-111 (<https://doi.org/10.1016/j.surfin.2018.02.002>).
12. Chander Prakash, Sunpreet Singh, Kartikey Verma, Sarabjeet S. Sidhu, **Subhash Singh**, Synthesis and characterization of Mg-Zn-Mn-HA Composite by Spark Plasma Sintering Process for Orthopedic Applications, *Vacuum* **155** (2018), 578-584 (<https://doi.org/10.1016/j.vacuum.2018.06.063>) (IF-2.06).

13. Kanishka Jha, Ravinder Kumar, Kartikey Verma, Babulal Chaudhary, Y.K. Tyagi, **Subhash Singh**, Application of Modified TOPSIS Technique in Deciding Optimal Combination for Bio-degradable Composite, *Vacuum* 157 (2018), 259-267. (<https://doi.org/10.1016/j.vacuum.2018.08.063>).
14. Ravi Kumar, **Subhash Singh**, Kaushik Pal, The influences of friction stir processing on micro structural and mechanical properties of Aluminum Alloy 7075-T651, *Journal of Materials Science* (**Under Review**); (**Impact Factor- 2.599**); (Springer).
15. Rajneesh Raghav, **Subhash Singh**, Rahul S. Mulik, Kaushik Pal, Study of machining performance in EDM through response surface methodology, *Archives of Civil & Mechanical Engineering* (**Under Review**); (**Impact Factor- 2.216**); (SCI Journal).
16. Suruj Protim Neog, **Subhash Singh**, Navneet Arora, Kaushik Pal, Influence of nanofillers on mechanical and microstructural analysis of friction stir welded dissimilar aluminium alloys, *Journal of Materials Research and Technology* (**Under Review**); (**Impact Factor- 2.359**); (Elsevier Ltd.).
17. Sawrabh Baraik, **Subhash Singh**, Vinay Panwar, Kaushik Pal, Microstructure and Mechanical properties of ZrO₂/CNT/Al composites produced by friction stir processing, *Advanced Engineering Materials* (**Under Review**); (**Impact Factor-1.758**); (Wiley-VCH).
18. Ankit, **Subhash Singh**, Kartikey Verma, Vijay Kumar, Synthesis, characterization and nuclear applications of Oxide-dispersed-strengthened steel: A Review, *Journal of Materials Research and Technology* (**Submitted**); (**Impact Factor- 2.359**); (Elsevier Ltd.).
19. Ravinder Kataria, Ravi Pratap Singh, Sandeep Singhal, Kartikey Verma, **Subhash Singh**, Rotary Ultrasonic Drilling of Quartz Ceramic: Experimental Investigation, Microstructure Analysis and Multi Response Optimization, *Materials Today: Proceedings* 21 (2020) 2043–2052 (<https://doi.org/10.1016/j.matpr.2020.01.322>)
20. Neetu, Subhash Singh, P. Nageshwar Rao, R. Jayaganathan, A. Midathada, Kartikey Verma, Uday K. Ravella, Elevated corrosion in strain hardened Al-Mg alloy, *Vacuum* 157 (2018) 402–413; (<https://doi.org/10.1016/j.vacuum.2018.09.010>) (**Impact Factor-2.067**); (Elsevier Ltd.).
21. Hitesh Arora, Chandar Prakash, Viranshu Kumar, Harpreet Singh, Kartikey Verma, **Subhash Singh**, Analysis of Sensitization in Austenitic Stainless Steel Welded Joint, *Materials Today: Proceedings* (**Accepted for Publication**).

22. **Subhash Singh**, Kaushik Pal, Multifunctional core-shell SiC/TiO₂, SiC/Li₄Ti₅O₁₂ microcomposites as reinforcement in Al matrix: A comparative study on microstructure, mechanical and damping properties, *Ceramics International* (*Manuscript Number- CERI-D-20-08684*) (**Under Review**).
23. Chander Prakash, Sunpreet Singh, Manjeet Singh, Kartikey Verma, Babulal Chaudhary, **Subhash Singh**, Multi-objective particle swarm optimization of EDM parameters to deposit HA-coating on biodegradable Mg-alloy, *Vacuum* 158 (2018) 180–190. (<https://doi.org/10.1016/j.vacuum.2018.09.050>)
24. Mayank Mishra, Md Manzar Iqbal, Girija N. Arka and **Subhash Singh**, Fabrication, mechanical and microstructural characterization of multi-walled CNTs/magnesium composite through FSP, *Journal of Composite Materials*. (**Under Review**).
25. Nazish Alam, Md Manzar Iqbal, Girija N. Arka, **Subhash Singh**, The effect of the Graphene on the microstructure and mechanical properties of the magnesium fabricated via friction stir processing, *Composite Interfaces* (**Under Review**).

BOOK CHAPTERS

- **Subhash Singh** and Kaushik Pal, Advanced numerical and experimental methods used in material science for evaluating mechanical and damping nature of composite materials, **IGI Global, USA**. ISBN13:9781522537229, EISBN13: 9781522537236. (**Title of the book: Advanced Numerical Simulations in Mechanical Engineering**) ([DOI: 10.4018/978-1-5225-3722-9.ch004](https://doi.org/10.4018/978-1-5225-3722-9.ch004)).
- **Subhash Singh**, Nanofiber electrodes for biosensors, Springer Publication (https://doi.org/10.1007/978-3-319-42789-8_41-1). (**Title of the book: Handbook of Nanofibers**) (**ISBN 978-3-319-53654-5**)
- Rajneesh Raghav, **Subhash Singh**, Rahul S. Mulik, Kaushik Pal, Study of tool wear based on the parameters in EDM through response surface methodology (https://doi.org/10.1007/978-981-13-6412-9_20) . (**Title of the book: Advances in Industrial and Production Engineering**), (**Online ISBN978-981-13-6412-9**), (**Print ISBN978-981-13-6411-2**).
- Kumar R., Iqbal M.M., **Singh S.**, Pal K. (2020) Microstructural Evolution and Mechanical Properties of Aluminum Alloy 7075-T651 Processed by Friction Stir Processing. (https://doi.org/10.1007/978-981-15-4059-2_14) . (**Title of the book: Advances in Materials Science and Engineering**), (**Print ISBN978-981-15-4058-5**) (**Online ISBN978-981-15-4059-2**).
- Mayank Mishra, Chander Prakash, Rajashekhara Shabadi, **Subhash Singh** (2020) Mechanical and Microstructural Characterization of Magnesium/Multi-walled Carbon Nanotubes Composites Fabricated via Friction Stir Processing. (https://doi.org/10.1007/978-981-15-4059-2_11). (**Title of**

the book: Advances in Materials Science and Engineering), (Print ISBN978-981-15-4058-5) (Online ISBN978-981-15-4059-2)

- Nazish Alam, Md. Manzar Iqbal, Chander Prakash, Animesh Basak, **Subhash Singh (2020)**, Influence of the Microstructural and Mechanical Properties of Reinforced Graphene in Magnesium Matrix Fabricated by Friction Stir Processing. (<https://doi.org/10.1007/978-981-15-4059-2> 19) (**Title of the book: Advances in Materials Science and Engineering), (Print ISBN978-981-15-4058-5) (Online ISBN978-981-15-4059-2)**)
- Md Manzar Iqbal, M. A. Siddiqui, Amaresh Kumar, **Subhash Singh (2020)**, Microstructures and Mechanical Properties of Al-4%Cu/Sic Composites Fabricated by Powder Metallurgy Process, (**Title of the book: Advanced Numerical Simulation in Science and Engineering) (ISBN: 979-863-132-3599).**)

BOOK

- ❖ **Subhash Singh** and Kartikey Verma, Title of the book “*Advanced Applications of 2D Nanostructures: Emerging Research and Opportunities*”, IGI Global Publication, USA. (**In Progress**)
- ❖ **Subhash Singh** and Dinesh Kumar, Title of the book “**Advanced Material and Composites: Opportunities and Challenges in Fabrication and Machining**” CRC Press, Taylor and Francis Group. (**In Progress**).
- ❖ **Subhash Singh** and Kartikey Verma, Title of the book “**Fundamentals and Advances in Nanomaterials**”, Springer Nature Publication, United Kingdom (**Proposal Submitted**)

ADMINISTRATIVE POSITIONS/RESPONSIBILITIES

- ❖ I am currently working as an **Associate Dean** (Faculty Welfare).
- ❖ Member of **Research and Consultancy Committee**, NIT Jamshedpur.
- ❖ Worked as a **Warden** of Hostel -C, NIT Jamshedpur from 06/07/2018 to 08/11/2020.
- ❖ Working as a **Co-Ordinator in Departmental Purchase Committee**.
- ❖ Laboratory **Professor-In-charge** for Foundry Laboratory and Forming Laboratory at Production & Industrial Engineering Department, NIT Jamshedpur.
- ❖ **Faculty Advisor** for Ph. D (research scholars) and M. Tech students at Production & Industrial Engineering Department, NIT Jamshedpur.

RESEARCH PROPOSALS

S. No.	Project Title	Funding Agency	Amount (In Lakhs)	Status
1.	"Mxene Based Conducting Electrodes for Dye-Sensitized Solar Cells Application	SERB, DST	19,84,126/-	Running
2.	Transition metal carbide nanomaterials for Energy storage Application*	Indo-US Science and Technology Forum (IUSSTF)	31,52,200/-	Running
3.	Fabrication of Novel Aluminium Alloy for Aerospace and Automobile Application	TEQIP-III	3,00,000/-	Running
4.	Development of Transition Metal Carbide based Transparent Thin Film Solar Cell with High Efficiency**	Core Research Grant (CRG), SERB, DST	89,63,600/-	Under Review

NATIONAL/INTERNATIONAL CONFERENCES/SYMPOSIUM/WORKSHOP

- **Subhash Singh** participated in National symposium on "Emerging trends in mechatronics" organised by Department of Mechanical Engineering NIT Kurukshetra, under the aegis of Technical Education Quality Improvement Programme (TEQIP) held on 27th to 28th December 2007.
- **Subhash Singh** participated in National Conference on "Energy" organised by Department of Mechanical Engineering, Mody University, Laxmangarh, Rajasthan under the aegis of All India Council of Technical Education held on 18th to 19th October 2008.
- **Subhash Singh** participated in 2nd National Conference on "Energy" organised by Department of Mechanical Engineering, Mody University, Laxmangarh, Rajasthan under the aegis of Ministry of New and Renewable Energy and Department of Science and Technology held on 31st October to 1st November 2009.
- **Subhash Singh** Attended one day QIP workshop "Advances in Surface Modification Technologies: Friction Stir Processing" organised by Department of Mechanical and Industrial Engineering, Indian Institute of Technology Roorkee, held on 30th November 2013.

- **Subhash Singh**, Kaushik Pal, "Effect of surface modified SiC with Al₂O₃ and ZnAl₂O₄ on mechanical and damping properties of the composites" , Poster presentation in 14th IUMRS-International Conference on Advanced Materials, Jeju, South Korea, 25th to 29th Oct. 2015.
- Kaushik Pal, **Subhash Singh**, "Experimental investigation on mechanical and microstructural characterization of silicon carbide and carbon black reinforced aluminium 7075 hybrid composites " , Oral presentation in 14th IUMRS-International Conference on Advanced Materials, Jeju, South Korea, 25th to 29th Oct. 2015.
- **Subhash Singh**, Kaushik Pal, "Synthesis and characterization of core-shell multifunctional materials: A facile route" Oral presentation in 2nd Conference on Microscopy in Materials Science organised by Academy of Microscope Science and Technology (AMST) at Thapar University, Patiala, Punjab, India from 25th to 27th Feb 2016.

CONFERENCE/SEMIANR/WORKSHOP ORGANISED

- Recently, I organized two-day Nation Conference on **Innovations & Recent Trends in Engineering & Technology (NCIRET - 2017)** held on April 14 (Friday)- April 15 (Saturday) 2017 at Vyas Institute of Engineering & Technology (VIET), Jodhpur, Rajasthan.
- Short Term Course (STC) was organized on "**Recent Trends in Sustainable Manufacturing (RTSM 2019)**" from **16th-21st Dec, 2019** at National Institute of Technology Jamshedpur.
- Nation Conference will be organized on "**Recent Trends in Production and Industrial Management**" (**PIM-2020**), 12th -13th September 2020 Sponsored by TEQIP-III at Department of Production and Industrial Engineering, National Institute of Technology Jamshedpur.

ACHIVEMENTS

- **Best Poster Presentation Award (2015)**: Got Best Poster Presentation Award in **14th IUMRS-International Conference on Advanced Materials**, Jeju, South Korea.
- I am currently working **Head Research & Development**, Vyas Institute of Higher Education, Jodhpur, Rajasthan, India.

- Got selected in E.F.I.P (Early Faculty Induction Programme) -2005, Conducted by Indian Institute of Science, Bangalore and affiliated by AICTE.
- Delivered expert lecture in faculty development programme/short term course of 5 days on "Technology Advancement & Skill Enhancement" in the **WIT Dehradun** campus from 5th to 9th August, 2019.
- I was one of the resource persons in the Short-Term Training Program (STTP) from 2nd September to 6th September, 2019 on the area "**Technology Innovation and Entrepreneurship**" at Dept. of Mechanical Engineering, DUIET, Dibrugarh University.
- Delivered Lecture on "Microstructural Analysis of various metals and their alloys" in WIT Dehradun in Twinning activities under TEQIP-III.
- Member of the advisory board for the conference **International Conference on Future Trends in Materials and Mechanical Engineering (ICFTMME-2020)**, SRM University, Delhi-NCR Campus, Modinagar, U.P. (INDIA).
- Member of Technical Advisory Committee of 2nd International Conference on Future Learning Aspects of Mechanical Engineering (**FLAME-2020**) from 5th to 7th August 2020.

SEMINAR

- Presented seminars on "**Reverse Engineering**"
- Presented seminar on "**Taguchi's Philosophy**"

EXTRA CURRICULAR ACTIVITIES

- Languages Known English (SRW), Hindi (SRW), German (SRW)
- Making arts specially sketching
- Playing football, badminton and basketball
- I was Sports Faculty In-charge in MITS, Laxmangarh, Sikar (Rajasthan).

◆ College Span

- 1: Bagged several prizes in **sports and technical** events.
- 2: Participated in '**Inter University Level**' Sports Event in IT BHU Varanasi
- 3: President of PFAC i.e. **photography and fine arts club** in KNIT Sultanpur.

INDUSTRIAL TRAINING

- Four weeks Training at **UGS & Industries (P) Ltd.**”, Seohara, Bijnor, Uttar Pradesh.
- Six weeks Training at **“Barat Heavy Electricals Limited (BHEL)”** Haridwar, Uttarakhand.
(B.Tech summer training)

PERSONAL INFORMATION

Date of Birth: 25th Nov 1980.

Nationality: Indian.

Gender: Male

Marital Status: Married

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I hereby declare that all the above-mentioned information is true to the best of my knowledge.

(Subhash Singh)