



Dr. Samarjit Singh
Assistant Professor

Centre/School/Special Centre: SoS Engg. & Tech.

Department: Mechanical Engineering

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Qualifications:

- **Ph.D.** from Motilal Nehru National Institute of Technology Allahabad, Prayagraj, India,
(Status: Awarded, 31st December, 2020) with 8.33 CGPA in coursework.
Department: Department of Applied Mechanics
Specialization: Microwave absorbing materials
Title: *Studies on the development of SiC-based composite materials for microwave absorption.*
- **M.Tech** from Motilal Nehru National Institute of Technology Allahabad, India
Discipline: Materials Science and Engineering
Department: Department of Applied Mechanics
CPI: 9.05 (passing year – 2015)
Dissertation title: *Processing and mechanical behaviour of titania particles reinforced epoxy composite.*
- **B.Tech** from Tezpur University (A Central University)
Discipline: Department of Mechanical Engineering
CGPA: 8.84 (passing year – 2013)
Dissertation title: *Investigation of effect of cutting conditions on cutting forces through an experimental study and computational modeling.*

Area of Interest/Specialization: Radar absorbing composites, Nano-materials synthesis and characterization, Polymer composites, Conventional and Un-conventional machining

Experience: *Teaching (Institute of Engineering & Technology Lucknow):* 15 months and

Postdoctoral (NIT Meghalaya): 05 months

Teaching: Working as an Assistant Professor in the Department of Mechanical Engineering, School of Studies of Engineering & Technology, **GGV Bilaspur** from 27th October, 2022 to till date.

Awards and Honors:

- **All India Merit Rank 43 in Bihar Public Service Commission**, Assistant Professor (Mechanical Engg.) Exam in 2022.
- **Gold Medal Award** in the Annual Convocation for standing First at M.Tech. (Materials Science and Engineering, MNNIT Allahabad), 2016.
- B.Tech 1st class with **Distinction** (Mechanical Engineering, Tezpur University).
- Secured **All India Rank 3130** with a **percentile of 98.11 in GATE 2013** among 0.17 million Mechanical Engineering students across the country.
- Ministry of Human Resource Development, Govt. of India national fellowship for M.Tech. Program 2013-2015.
- Ministry of Human Resource Development, Govt. of India national fellowship for Ph.D Program, 2015- 2020.
- Class 10th STAR holder.

JOURNAL PUBLICATIONS:

S.N o.	Author(s)	Title	Name of Journal	Volume	Page	Year
1	Samarjit Singh* , Rakesh Bhaskar, Kannan Badri Narayanan*, Abhishek Kumar, Kishore Debnath	<i>Development of silicon carbide (SiC)-based composites as microwave-absorbing materials (MAMs): a review</i>	Journal of the European Ceramic Society	44(13)	7411-7431	2024
2	Satish Chaurasiya, Himanshu Bisaria, Samarjit Singh , Kishore Debnath	<i>Powder Mixed Micro-Electric Discharge Milling of Ni-rich NiTi SMA: An Investigation on Machining Performance and Biocompatibility</i>	Materials and Manufacturing Processes	39(15)	2208–2217	2024
3	Sushil Kumar Singh, Avadesh Yadav, Samarjit Singh , Anuj Jain, Abhishek Kumar	<i>Enhancement of Mechanical and Viscoelastic Properties of Epoxy and Epoxy-Nano Silica Composites using Self-Healing Microcapsules</i>	Materials Today Communications	43	111741	2025
4	Pappu Kumar Harijan, Samarjit Singh , Pinki Singh, Pramod K Yadav, Dr Gopal Ji	<i>Structural, morphological, and optical investigation of PbTiO₃ doped BiFeO₃ Nanoparticles derived from sol-gel method</i>	Engineering Research Express	7	025002	2025

5	Anil Yadav, Anil Kumar, Shailendra Sinha, Samarjit Singh , S.K. Yadav	<i>Experimental Review on Solid Oxide Fuel Cell-Based Hybrid Power Generation System: Performance, Economic, and Environmental Analysis</i>	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	46(1)	12815–12828	2024
6	Samarjit Singh *, Sushil Kumar Singh, Abhishek Kumar, Biplab Das	<i>Influence of Reduced Graphene Oxide Flakes Addition on the Electromagnetic Wave Absorption Performance of Silicon Carbide-Based Wave Absorber</i>	JOM The Journal of The Minerals, Metals & Materials Society (TMS)	76(1)	486-495	2024
7	Gorrepotu Surya Rao, Ritam Paul, Samarjit Singh *, Kishore Debnath	<i>Influence of conventionally drilled and additively fabricated hole on tensile properties of 3D printed ONYX/CGF composites</i>	Journal of Materials Engineering and Performance	32(13)	5849-5861	2023
8	Samarjit Singh *, Sushil Kumar Singh, Pappu Kumar Harijan, Sunil Kumar Yadav, Abhishek Kumar	<i>Investigation on the effect of Fe impurity pickups during ball milling and Ni dispersion on the microwave absorption performance of ball milled Fe impurities-Ni/SiC composites</i>	Journal of Material Sciences: Materials in Electronics	33	17828-17841	2022
9	Rahul Singh, Samarjit Singh , B Kranthi Kumar, Abhishek Kumar	<i>Mechanical behaviour and corrosion study of 304L austenitic steel processed by constrained groove pressing</i>	Indian Journal of Engineering and Materials Sciences	28(3)	258-264	2021
10	Samarjit Singh , Abhishek Kumar, Dharmendra Singh	<i>Enhanced microwave absorption performance of SWCNT/SiC composites</i>	Journal of Electronic Materials	49(12)	7279-7291	2020
11	Samarjit Singh , Anil Kumar Maurya, Rajeev Gupta, Abhishek Kumar, Dharmendra Singh	<i>Improved microwave absorption behavioral response of Ni/SiC and Ni/SiC/Graphene composites: A comparative insight</i>	Journal of Alloys and Compounds	823	153780	2020
12	Samarjit Singh , Abhishek Kumar, Smriti Agarwal, Dharmendra Singh	<i>Synthesis and tunable microwave absorption characteristics of flower-like Ni/SiC composites</i>	Journal of Magnetism and Magnetic Materials	503	166616	2020
13	Abhishek Kumar, Samarjit Singh , Dharmendra Singh	<i>Effect of heat treatment on morphology and microwave absorption behavior of milled SiC</i>	Journal of Alloys and Compounds	772	1017-1023	2019
14	Samarjit Singh , Abhishek Kumar	<i>Selection of core-shell material-based electromagnetic wave absorbers in 2-18 GHz using TOPSIS and VIKOR ranking methods</i>	Defence Science Journal	69	431-436	2019
15	Saurabh, Anil Kumar Maurya, Samarjit Singh , Abhishek Kumar	<i>Microwave absorption performance of graphene nanoplatelets dispersed SiC</i>	Defence Science Journal	69	437-441	2019
16	Samarjit Singh , Ankur Sinha, Raj Hemant Zunke, Abhishek	<i>Double layer microwave absorber based on Cu dispersed SiC composites</i>	Advanced Powder Technology	29(9)	2019-2026	2018

	Kumar, Dharmendra Singh					
17	Samarjit Singh , Sankal Shukla, Abhishek Kumar, Dharmendra Singh	<i>Influence of Zn dispersion in SiC on electromagnetic wave absorption characteristics</i>	Journal of Alloys and Compounds	738	448-460	2018
18	Sushil Kumar Singh, Samarjit Singh , Abhishek Kumar, Anuj Jain	<i>Thermo-mechanical behavior of TiO₂ dispersed epoxy composites</i>	Engineering Fracture Mechanics	184	241-248	2017

Note: Asterisk ‘*’ represents role as Corresponding author

Books/Reports/Chapters/General articles etc.:

S.No	Title	Author's Name	Publisher	Year of Publication
1	Selection of spinel ferrite-based electromagnetic wave absorbing composites using AHP-based TOPSIS and VIKOR approaches	Samarjit Singh *, Biplab Das, Abhishek Kumar, Abhishek Nigam, T.G. Loganathan	Spinel Ferrite Materials Fundamentals, Progress, and Applications by ELSEVIER	2024

CONFERENCES

- 1) **Samarjit Singh**, Gaurav Biswas, Abhishek Kumar, “*Influence of pH and calcination temperature on magnetic properties of nanosized Zn-ferrite synthesized by sol–gel citrate method*”, International Conference on Emerging Trends in Nanomaterials Science and Technology (ICETNMST-2017) from 4th Jan. 2017 to 6th Jan. 2017 at **National Institute of Technology Nagaland, India**.
- 2) Abhishek Kumar, **Samarjit Singh**, Dharmendra Singh, “*Development of Double Layer Microwave Absorber using Genetic Algorithm*”, International Conference on Advanced Technologies in Design, Mechanical and Aeronautical Engineering (ATDMAE 2017) from 12th Jul. 2017 to 14th Jul. 2017 at **Nanyang Technological University, Singapore**.
- 3) Abhishek Kumar and **Samarjit Singh**, “*Development of Coatings for Radar Absorbing Materials at X-Band*”, International Conference on Recent Advances in Materials, Mechanical and Civil Engineering (ICRAMMCE-2017) held at **Marri Laxman Reddy Institute of Technology and Management, Hyderabad** during June 01-02, 2017.
- 4) Sushil Kumar Singh, Amit Kumar, **Samarjit Singh**, Abhishek Kumar and Anuj Jain, “*Investigation of thermo-mechanical properties of surface treated SiO₂/epoxy nanocomposite*”, in the International Conference & Exposition on Mechanical, Material and Manufacturing Technology (ICE3MT2020) organized by **CVR College of Engineering Hyderabad**, held on 9-10 October, 2020.

- 5) Sushil Kumar Singh, **Samarjit Singh**, Raunak Kohli, Anuj Jain and Abhishek Kumar, “*Effect of TiO₂ Dispersion on Mechanical Properties of Epoxy Polymer*”, International Conference on Condensed Matter & Applied Physics (ICC-2015) held at **Bikaner (Rajasthan)** India during October 30-31, 2015.
- 6) **Samarjit Singh**, Sushil Kumar Singh, Abhishek Kumar, “*Material selection for nickel based microwave absorbing materials in 2-18 GHz frequency range using different multi-criteria decision making methods*”, NMD-ATM 2016 from 11th Nov. 2016 to 14th Nov. 2016 at **IIT Kanpur**.
- 7) Sushma Yadav, **Samarjit Singh**, Abhishek Kumar, “*Synthesis and Anti-bacterial Study of Zinc Oxide Doped Hydroxyapatite Nanocomposites with Potential Biomedical Applications*”, in national conference Industrial application of Nano-Science and NanoTechnology (IANN-2019) organized by **MNNIT Allahabad**, held during November 15-16, 2019.

Projects:

SEED Grant of Rupees 1 lakh for 2 years from GGV Biplaspur

Additional Information:

WORKSHOPS ATTENDED

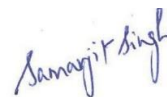
- 1) Global initiative of Academic Network (GIAN) course on *Thermal sprayed coatings and composites: Science, Engineering and Applications*, 20/06/2016 to 01/07/2016 in Applied Mechanics Department, **MNNIT Allahabad**, Prayagraj, India.
- 2) Global initiative of Academic Network (GIAN) course on *Active learning techniques and robust assessment methods in “Train the Trainer” format*, 10/07/2017 to 15/07/2017 in Applied Mechanics Department, **MNNIT Allahabad**, Prayagraj, India.
- 3) Workshop on “Advanced scanning electron microscopy and microanalysis” conducted by the Advanced Centre for Materials Science from 11th-15th March, 2019 at **IIT Kanpur**.
- 4) Workshop on “Advanced material characterization techniques and applications” conducted by the Department of Production and Industrial Engineering & Department of Electronics and Communication Engineering from 06th-10th January, 2021 at **NIT Jamshedpur**.
- 5) Attended FDP on “MATLAB - Artificial Intelligence and Optimization Techniques” organized by **NITTTR Chandigarh** from 21th-25th November, 2022.

PEER REVIEWED JOURNAL REVIEWER

- Chemical Engineering Journal (SCI, Elsevier)
- Materials Chemistry and Physics (SCI, Elsevier)
- Advanced Engineering Materials (SCI, Wiley)
- Ceramics International (SCI, Elsevier)
- Polymer Composites (SCI, Wiley)
- Macromolecular Materials and Engineering (SCI, Wiley)

RESEARCH IDs

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