

**Name:** Dr. Satnam Singh

**Designation:** Assistant Professor (Sel. Grade)

**Specialization:** Production Engineering

**Research Interest:** Microwave Materials Processing, Welding, Casting, Advance Manufacturing

**Email:** [satnamsingh@ncuindia.edu](mailto:satnamsingh@ncuindia.edu)

**Qualifications:**

- PhD (Thapar University)
- M.Tech (Maharishi Markandeshwar University)
- B. Tech. (Kurukshetra University)

**Professional Experience (In descending order)**

Duration	Designation	Nature of work
From July 2016-Till present	Assistant Professor (The NorthCap University, Gurugram)	Teaching and research
August 2013-July 2016	Teaching associate and research scholar (Thapar University, Patiala)	Teaching and research
Sept. 2012-Aug. 2013	Assistant Professor (Ambala college of engineering and applied research, Ambala)	Teaching and research
Aug. 2009- Sept. 2012	Lecturer (Maharishi Markandeshwar University, Ambala)	Teaching and research
July 2008- July 2009	Engineer in Process Engineering Department	Design of gauges, jigs and fixtures, Manufacturing plans

**Administrative Experience (In descending order)**

Duration	Designation	Nature of work
From December 2016-Till present	Departmental research coordinator	Handling the project registration, project evaluation

January 2017 – Till present	Vice Chancellor Innovation Fund Coordinator	Conducting evaluation of VCIF projects
October 2017	Editor and Joint Secretary of International Conference on Emerging trends in Mechanical and Industrial Engineering (ICETMIE-2017), held at The NorthCap university, Gurugram, India	Review of papers, publication of proceedings, journal tie-ups

#### **List of Patents:**

**Singh, S.**, Gupta, D., Jain, V. & Kumar, R. A method for metal ceramic composite casting through microwave energy. Indian patent no. 2051/DEL/2015. 2015 July 07 (Published Online)

#### **List of Publications in International Journals (SCI/SCIE/SCOPUS):**

[1] **Singh, S.**, Singh, P., Gupta, D., Jain, V., Kumar, R., Kaushal, S., 2018. Development and characterization of microwave processed cast iron joint. Eng. Sci. Tech., Int. J. (Published online) (**Elsevier, SNIP: 2.018**)

[2] Singh, P., **Singh, S.**, Mewar, S., 2018. Processing and characterization of high strength dual phase steel by two step intercritical heat treatment process. Proc. Inst. Mech. Eng. Part E J. Pro. Mech. Engg. (Article in Press) (**Sage, IF:1.448**)

[3] Kaushal, S., **Singh, S.**, 2018. Slurry erosion behavior of plasma sprayed coating on turbine steel. Ind. Lubr. Tribol. (In press). (**Emerald, IF: 0.605**)

[4] **Singh, S.**, Gupta, D., Jain, V., 2017. Processing of Ni-WC-8Co MMC casting through microwave melting. Mater. Manuf. Process. 33 (1), 26-34 (**Taylor and Francis, IF:1.42**)

[5] **Singh, S.**, Singh, R., Gupta, D., Jain, V., 2017. Preliminary metallurgical and mechanical investigations of microwave processed hastelloy joints, 139, 1–5. (**ASME, IF: 3.15**)

[6] **Singh, S.**, Gupta, D., Jain, V., 2016. Novel microwave composite casting process: Theory, feasibility and characterization. Mater. Des. 111, 51–59. (**Elsevier, IF: 4.36**)

[7] **Singh, S.**, Gupta, D., Jain, V., 2016. Microwave melting and processing of metal - ceramic composite castings . Proc. Inst. Mech. Eng. Part B J. Eng. Manuf. 232(7), 1235-1243. (**Sage, IF:1.336**)

- [8] Kaushal, S., Sirohi, V., Gupta, D., Bhowmick, H., **Singh, S.**, 2015. Processing and characterization of composite cladding through microwave heating on martensitic steel. Proc. Inst. Mech. Eng. Part L J. Mater. Des. Appl. (Article in Press) (**Sage, IF:1.625**)
- [9] Pathania, A., **Singh, S.**, Gupta, D., Jain, V., 2015 Development and analysis of tribological behavior of microwave processed EWAC + 20% WC10Co2Ni composite cladding on mild steel substrate. J. Manuf. Process. 20(1); 79-87. (**Elsevier, IF:2.322**)
- [10] **Singh, S.**, Gupta, D., Jain, V., 2015. Recent applications of microwaves in materials joining and surface coatings. Proc. Inst. Mech. Eng. Part B J. Eng. Manuf. 230; 603-617 (**Sage, IF:1.336**)
- [11] **Singh, S.**, Gupta, D., Jain, V. and Sharma, A.K., 2015. Microwave processing of materials and applications in manufacturing industries: A review. Mater. Manuf. Process. 30(1); 1-29. (**Taylor and Francis, IF:1.629**)
- [12] Sharma, A., Garg, M., **Singh, S.**, 2015. Taguchi optimization of tribological properties of Al/Gr/B4C composite. Ind. Lubr. Tribol. 67; 380–388. (**Emerald, IF: 0.605**)
- [13] **Singh, S.**, Singh, G., Kumar, L., Singh, S., 2015. Microstructural analysis and tribological behavior of aluminum alloy reinforced with hybrid alumina/nanographite particles. Proc. Inst. Mech. Eng. Part J: J. Eng. Tribol. 229; 597–608. (**Sage, IF:1.32**)
- [14] Kumar, A., **Singh, S.**, 2015. Analysis of mechanical properties and cost of glass/jute fiber-reinforced hybrid polyester composites. Proc. Inst. Mech. Eng. Part L: J. Mater. Des. Appl. 229; 202–208. (**Sage, IF:1.625**)
- [15] Trehan, R., **Singh, S.**, Garg, M., 2015. Optimization of mechanical properties of polyester hybrid composite laminate using Taguchi methodology – Part 1. Proc. Inst. Mech. Eng. Part L J. Mater. Des. Appl. 229; 263–273. (**Sage, IF:1.625**)

#### **List of Publications in Peer Reviewed International/National Journals:**

- [1] **Singh, S.**, Kumar, P., Jain, S.K., 2013. An experimental and numerical investigation of mechanical properties of glass fiber reinforced epoxy composites. Adv. Mat. Lett. 2013, 4(7), 567-572.
- [2] Bindal, A., **Singh, S.**, Batra, N.K., Khanna, R., 2013. Development of Glass/Jute Fibers Reinforced Polyester Composite. Indian Journal of material science, 2013; Article ID 675264, 1-6.
- [3] **Singh, S.**, Prince, Kumar, P., Kumar, R., 2013. Experimental investigations and finite element analysis of debonding behavior of steel fibre reinforced epoxy. Elixir Mech. Engg. 57; 14052-14054

#### **List of Publications in International Conferences:**

[1] **Singh S**, Gupta D, Jain, V, 2017, Microwave processing of powdered metal matrix composite castings. Presented at RoPM&AM (5th International Conference on Powder Metallurgy & Advanced Materials) held in September, 2017 at **Cluj-Napoca (Romania)**.

[2] **Singh, S.**, Gupta, D., Jain, V., 2016. Some developments on metal-ceramic composite castings through microwave energy. Presented at HES16 (International conference on heating through electromagnetic sources) held in May, 2016 at **Padua (Italy)**.

[3] Gupta, D., **Singh, S.**, Jain, V., Kumar, R., 2014. Joining of bulk cast iron through microwave energy. Presented at ICNDME (International conference on newest drift in mechanical engineering) held in Dec, 2014 at MMU, Mullana (India).

[4] Haldar, A., **Singh, S.**, Prince, 2011. Vibration characteristics of thermoplastic composite. Presented at ICM2ST-11 (2nd International conference on methods and models in science and technology) held in Nov, 2011 at Jaipur (India).

**List of Books/ Book Chapters Published:**

**Singh, S.**, Gupta, D., Jain, V. (2016). An energy efficient processing route for advance ceramic composites using microwaves. In *Advanced Ceramic Materials* (Eds. Ashutosh Tiwari and Rosario A.G.), Scrivener Publishing 2016, pp. 97-144.

**Research Guidance:**

**List of M.E./M. Tech. Dissertations (completed): 04 Completed and 01 ongoing**

**Details of Short Term/Refresher Courses organized/participated:**

1. One week workshop on Value Chain Management System at IIT Roorkee.
2. One week advance training on Pro/E at PTC training center, New Delhi.
3. Two weeks TEQIP sponsored workshop on Recent Advances in Manufacturing Technology at GNEC Ludhiana.
4. One day workshop on TEQIP sponsored on Simulation of Engineering System at Thapar University.