

# Resume

- Name and Designation**

Dr Brijesh Gangil  
 Assistant Professor  
 Mechanical Engineering Department,  
 S.O.E.T, H.N.B. Garhwal, University,  
 (A Central University), Srinagar- Garhwal,  
 Uttarakhand.  
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- Organization**

HNB Garhwal University, (Central University), Srinagar- Garhwal, 246174, India

- Educational Qualification (Bachelor to Doctoral):**

Name of Examination	Board/University	Year of Passing	% of Marks	Class/Div.
High school	U.P. Board	1993	61.1%	I <sup>st</sup>
Intermediate	U.P. Board	1995	63.2%	I <sup>st</sup>
B.E.(Mechanical)	North Maharashtra, University, Jalgaon	2001	65.5%	I <sup>st</sup>
M.Tech (Design)	M.N.N.I.T, Allahabad (U.P.)	2004	8.7C.P.I	I <sup>st</sup>
Ph.D (Mechanical Engineering)	N.I.T Hamirpur, (H.P.)	Awarded on April 2014	-----	

- Professional Experience**

S.N o.	Position and Organization	Nature of Job	Period
1.	Asst. professor, HNB Garhwal University, Srinagar- Garhwal, Uttarakhand, India	Teaching and Research Works	28.06.12 to till date
2.	Asst. professor, G.B. Pant Institute of Engg. & Tech. Pauri-Garhwal, Uttarakhand, India	Teaching and Research Works	15.02.2010 to 27.06.2012
3.	Lecturer, IET, Bundelkhand University, Jhansi, India	Teaching	23-09-2004 to 09-02-2010

- Specialization and Expertise**

**Research Area for Doctoral Thesis:**

*“Investigations on Thermo-Mechanical and Sliding Wear Behaviour of Homogeneous and Functionally Graded Short Fibre Reinforced Vinyl Ester Composites”*

Short fibre reinforced functionally graded polymer composites are now-a-days used in numerous structural applications and are useful in applications where high wear resistance and high bulk toughness are a necessity. This thesis consists of two parts: The first part has provided the description of the experimental analysis and has presented the physical, mechanical, thermo-mechanical, thermal-analysis and the second part has reported the effect of different fiber/filler on the sliding wear behavior of homogenous and functionally graded short fiber reinforced vinyl ester composites. The centrifugation technique which has been adopted in this work, successfully fabricates the FGMs, which prove to be more wear resistance than their homogenous counterparts.

▪ **Research Interests**

- Graded composites can be used for tools, coatings, aircraft, space science and automotive industry. Unusual structure and properties of these materials can be obtained by using appropriate methods.
- Biocomposites fabrication and characterization.
- Wear performance of composite (Polymer/metal/ceramic matrix) which includes sliding (dry and lubricating), erosive (dry and slurry), abrasive (two and three body) wear.
- Synthesis and structural, dielectric, and electrical characterization of graded and nano filled materials.

**Academic Responsibility Assigned by Institute/ University**

S.No	Name of the Job	Institute level / Department level	College/ university	Duration
1.	Incharge, Mechanical Engineering Department	University level	H.N.B.G.U, Srinagar (Uttrakhand)	13-09-2012 to 20-09-2017
2.	Coordinator, Community College	University level	H.N.B.G.U, Srinagar (Uttrakhand)	01/03/2014 to Till date
3.	Warden B.J.J.R. Boys hostel	University level	H.N.B.G.U, Srinagar (Uttrakhand)	01/03/2013 to 22/09/2014
4.	Warden Sridev Suman Boys hostel	University level	H.N.B.G.U, Srinagar (Uttrakhand)	23/09/2014 to 30-04-17
5.	Warden, Swami Vivekanand boys Hostel	University level	H.N.B.G.U, Srinagar (Uttrakhand)	01-05-17 to till date
4.	Member of Inspired Teachers Network	University level	H.N.B.G.U, Srinagar (Uttrakhand)	26-12-13 to 25-12-2015

5.	Warden, 180 Seated Hostel, GB Pant Engineering College, Pauri	Institute level	G.B.Pant Engg College, Pauri (Uttarakhand)	09-02-2011 to 25-06-2012
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➤ **Participation in Continuing Education Programmes**

<b>Courses/Conferences/ Seminars Attended</b>	<b>University/Institution</b>	<b>From</b>	<b>To</b>	<b>Duration (Days)</b>
STC on Open Educational Resources in Higher Education (OERHE)	Faculty Development Centre, HNB Garhwal University	04-09-17	09-09-17	One week
STC on Use and Development of Open Educational Resources	Faculty Development Centre, HNB Garhwal University	12-10-18	18-10-18	One week
Orientation Programme	H.P. University, Shimla (H.P)	02-06-14	28-06-14	Four week
Refresher course	Panjab University, Chandigarh	08-12-2016	28-12-2016	Three week
STC on Quality Improvement Programme Centre	Indian Institute of Technology Roorkee	07-01-14	11-01-14	One week
STC on Quality Improvement Programme Centre	Indian Institute Of Technology Roorkee	26-12-11	30-12-11	One week
STC on Energy & Environment management	National Institute Of Technology, Hamirpur	10-05-10	14-05-10	One week
STC on Micro & Nano Composite Materials	National Institute Of Technology, Hamirpur	28-12-09	01-01-10	One week
STC on Alternate Energy Sources	National Institute of Technical Teachers' Training and Research, Chandigarh.	18-08-08	22-08-08	One week

**Research Supervision (No. of Ph.D. Student) : 04 (Registered)**

**M.Tech Student Guided : 07**

**Publications during the last five years (2015-2020)**

1. Singh, T., Patnaik, A., Gangil, B., & Chauhan, R. (2015). Optimization of tribo-performance of brake friction materials: effect of nano filler. *Wear*, 324, 10-16. SCI, Impact factor 2.9
2. Kumar, S., Gangil, B., & Patel, V. K. (2016, May). Physico-mechanical and tribological properties of grewia optiva fiber/bio-particulates hybrid polymer composites. In AIP conference proceedings (Vol. 1728, No. 1, p. 020384). AIP Publishing LLC. Scopus Indexed.

3. Gangil, B., Kothiyal, P., & Kumar, S. (2016, May). Experimental investigation of machining process parameters in conventional turning of Al-7075 on MRR using response surface methodology. In AIP Conference Proceedings (Vol. 1728, No. 1, p. 020631). AIP Publishing LLC. Scopus Indexed.
4. Kumar, S., Gangil, B., Prasad, L., & Patel, V. K. (2017). A Review on mechanical behaviour of bast-glass fibre based hybrid polymer composites. *Materials Today: Proceedings*, 4(9), 9576-9580. Scopus Indexed.
5. Kumar, S., Kumar, Y., Gangil, B., & Patel, V. K. (2017). Effects of agro-waste and bio-particulate fillers on mechanical and wear properties of sisal fibre based polymer composites. *Materials Today: Proceedings*, 4(9), 10144-10147. Scopus Indexed.
6. Singh, T., Chauhan, R., Patnaik, A., Gangil, B., Nain, R., & Kumar, A. (2018). Parametric study and optimization of multiwalled carbon nanotube filled friction composite materials using Taguchi method. *Polymer Composites*, 39(S2), E1109-E1117. SCI, Impact factor 2.0
7. Bisht, A., & Gangil, B. (2018). Structural and physico-mechanical characterization of closed-cell aluminum foams with different zinc additions. *Science and Engineering of Composite Materials*, 25(4), 789-795. SCI, Impact factor 0.8
8. Tejyan, S., Singh, T., Patnaik, A., Fekete, G., & Gangil, B. (2019). Physico-mechanical and erosive wear analysis of polyester fibre-based nonwoven fabric-reinforced polymer composites. *Journal of Industrial Textiles*, 49(4), 447-464. SCI, Impact factor 1.7.
9. Kumar, S., Patel, V. K., Mer, K. K. S., Fekete, G., Gangil, B., & Singh, T. (2018). Influence of woven bast-leaf hybrid fiber on the physico-mechanical and sliding wear performance of epoxy based polymer composites. *Materials Research Express*, 5(10), 105705. SCI, Impact factor 1.44.
10. Singh, T., Patnaik, A., Fekete, G., Chauhan, R., & Gangil, B. (2019). Application of hybrid analytical hierarchy process and complex proportional assessment approach for optimal design of brake friction materials. *Polymer Composites*, 40(4), 1602-1608. SCI, Impact factor 2.0.
11. Singh, T., Gangil, B., Patnaik, A., Kumar, S., Rishiraj, A., & Fekete, G. (2018). Physico-mechanical, thermal and dynamic mechanical behaviour of natural-synthetic fiber reinforced vinylester based homogenous and functionally graded composites. *Materials Research Express*, 6(2), 025704. SCI, Impact factor 1.44.
12. Nadda, R., Kumar, R., Singh, T., Chauhan, R., Patnaik, A., & Gangil, B. (2018). Experimental investigation and optimization of cobalt bonded tungsten carbide composite by hybrid AHP-TOPSIS approach. *Alexandria engineering journal*, 57(4), 3419-3428. SCI, Impact factor 1.2.

13. Singh, T., Gangil, B., Patnaik, A., Biswas, D., & Fekete, G. (2019). Agriculture waste reinforced corn starch-based biocomposites: effect of rice husk/walnut shell on physicomechanical, biodegradable and thermal properties. *Materials Research Express*, 6(4), 045702. SCI, Impact factor 1.44.
14. Kumar, S., Mer, K. K. S., Gangil, B., & Patel, V. K. (2019). Synergy of rice-husk filler on physico-mechanical and tribological properties of hybrid *Bauhinia-vahlii*/sisal fiber reinforced epoxy composites. *Journal of Materials Research and Technology*, 8(2), 2070-2082. SCI, Impact factor 5.1.
15. Gangil, B., Kukshal, V., Sharma, A., Patnaik, A., & Kumar, S. (2019, January). Development of hybrid fiber reinforced functionally graded polymer composites for mechanical and wear analysis. In *AIP Conference Proceedings* (Vol. 2057, No. 1, p. 020059). AIP Publishing LLC. Scopus Indexed.
16. Gairola, S., Joshi, A., Gangil, B., Rawat, P., & Verma, R. (2019). Correlation of tensile properties and fracture toughness with microstructural features for Al–Li 8090 alloy processed by cryorolling and post-rolled annealing. *Transactions of the Indian Institute of Metals*, 72(7), 1743-1755. SCI, Impact factor 1.3.
17. Kumar, S., Patel, V. K., Mer, K. K. S., Gangil, B., Singh, T., & Fekete, G. (2019). Himalayan natural fiber-reinforced epoxy composites: Effect of *grewia optiva*/*bauhinia vahlii* fibers on physico-mechanical and dry sliding wear behavior. *Journal of Natural Fibers*, 1-11. SCI, Impact factor 2.4.
18. Bisht, A., Gangil, B., & Patel, V. K. (2019). Physico-compression, sliding wear and energy absorption properties of Zn/Mg infiltrated closed cell aluminum foam. *Materials Research Express*, 6(10), 106583. SCI, Impact factor 1.44.
19. Singh, T., Gangil, B., Singh, B., Verma, S. K., Biswas, D., & Fekete, G. (2019). Natural-synthetic fiber reinforced homogeneous and functionally graded vinylester composites: Effect of bagasse-Kevlar hybridization on wear behavior. *Journal of Materials Research and Technology*, 8(6), 5961-5971. SCI, Impact factor 5.1.
20. Verma, S. K., Gupta, A., Singh, T., Gangil, B., Jánosi, E., & Fekete, G. (2019). Influence of dolomite on mechanical, physical and erosive wear properties of natural-synthetic fiber reinforced epoxy composites. *Materials Research Express*, 6(12), 125704. SCI, Impact factor 1.44.

21. Kumar, S., Mer, K. K. S., Gangil, B., & Patel, V. K. (2020). Synergistic effect of hybrid Himalayan Nettle/Bauhinia-vahlii fibers on physico-mechanical and sliding wear properties of epoxy composites. *Defence Technology*, 16(4), 762-776. SCI, Impact factor 1.5.
22. Singh, T., Pruncu, C. I., Gangil, B., Singh, V., & Fekete, G. (2020). Comparative performance assessment of pineapple and Kevlar fibers based friction composites. *Journal of Materials Research and Technology*, 9(2), 1491-1499. SCI, Impact factor 5.1.
23. Bisht, A., Gangil, B., & Patel, V. K. (2020). Selection of blowing agent for metal foam production: A review. *Journal of Metals, Materials and Minerals*, 30(1). ESCI.
24. Khare, J. M., Dahiya, S., Gangil, B., & Ranakoti, L. (2020). Influence of different resins on Physico-Mechanical properties of hybrid fiber reinforced polymer composites used in human prosthetics. *Materials Today: Proceedings*. Scopus Indexed.
25. Gairola, S. P., Tyagi, Y. K., Gangil, B., & Sharma, A. (2020). Fabrication and mechanical property evaluation of non-woven banana fibre epoxy-based polymer composite. *Materials Today: Proceedings*. Scopus Indexed.
26. Bhandari, A., Gangil, B., Ahmad, F., & Bisht, T. (2020, August). Finite Element Analysis Based on Mechanical Vibration characteristics of Femur Bone. In *2020 International Conference on Advances in Computing, Communication & Materials (ICACCM)*. IEEE. Scopus Indexed.
27. Ravi Gupta, Kamlesh Kushwah, Sanjay Goyal, Brijesh Gangil, Ankush Sharma. (2020). Ramie-glass fiber reinforced epoxy composites: Impact of walnut content on mechanical and sliding wear properties. *Materials Today: Proceedings*. Scopus Indexed.

### **Books Chapter Published**

1. Singh, T., Gangil, B., & Patnaik, A. (2015). Influence of nano-fillers on the tribo-performance of brake friction materials. *Nanotechnology: Novel Perspectives and Prospects*. McGraw-Hill, USA, 403-409.
2. Shashi Kant Verma, Ashutosh Gupta, Vinay Kumar Patel, Brijesh Gangil, and Lalit Ranikoti. "The Potential of Natural Fibers for Automotive Sector." In *Automotive Tribology*, pp. 31-49. Springer, Singapore, 2019. Bisht, A., Patel, V. K., & Gangil, B. (2019). Future of metal foam materials in automotive industry. In *Automotive Tribology* (pp. 51-63). Springer, Singapore.
3. Kumar, S., Gangil, B., Mer, K. K. S., Biswas, D., & Patel, V. K. (2019). Asbestos Free Braking Pads by Using Organic Fiber Based Reinforced Composites for Automotive Industries. In *Automotive Tribology* (pp. 327-343). Springer, Singapore.

4. Bisht, A., Patel, V. K., & Gangil, B. (2019). Future of metal foam materials in automotive industry. In *Automotive Tribology* (pp. 51-63). Springer, Singapore.
5. Kumar, S., Gangil, B., Mer, K. K. S., Gupta, M. K., & Patel, V. K. (2020). Bast Fiber-Based Polymer Composites. *Hybrid Fiber Composites: Materials, Manufacturing, Process Engineering*, 147-167. Wiley-VCH Verlag GmbH & Co. KGaA.
6. Gangil, B., Ranakoti, L., Verma, S., Singh, T., & Kumar, S. (2020). Natural and Synthetic Fibers for Hybrid Composites. *Hybrid Fiber Composites: Materials, Manufacturing, Process Engineering*, 1-15. Wiley-VCH Verlag GmbH & Co. KGaA.

▪ **Summary of research output**

a. Publications in International Journal	:	<b>30</b>
b. Publications and presentation in National / International Conferences	:	<b>24</b>
c. Delivered talk as Key-Note speaker in conferences/ STC	:	<b>08</b>
d. Book Chapter published in Edited book	:	<b>06</b>

**Referee for International/ National Journals**

1. International Journal of Computational Material Science and Engineering.
2. Ceramic International, Elsevier
3. Silicon, Springer
4. Science and Engineering of Composite Materials, SECM, Degruyter
5. Walailak Journal of Science & Technology, Thailand
6. Journal of Industrial Textiles, SAGE
7. Polymer composite, Wileys

**Declaration:**

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

**Brijesh Gangil**

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