

Publications:

International Journals:

1. **Shukla D. K.** and Parameswaran V., “Epoxy composites with 200nm thick alumina platelets as reinforcements”, *J of Mat. Sci.* 42 (15); 5964-5972, 2007. ISSN: 1573-4803, SCI, SCOPUS, DOI 10.1007/s10853-006-1110-8;
2. **Shukla D. K.**, Kasisomayajula, S. V. and Parameswaran V., “Epoxy composites using functionalized alumina platelets as reinforcements”, *Comp. Sci Tech.*, 68; 3055-63, 2008. ISSN: 1879-1050, SCI, SCOPUS DOI 10.1016/j.compscitech.2008.06.025;
3. Parameswaran V. and **Shukla D. K.**, “Evaluation of elastic modulus of epoxy reinforced with 200 nm thick alumina platelets through finite element analysis”, *Mat. Sci Engg. A*, 527; 3792-99, 2010. ISSN: 0921-5093, SCI, SCOPUS, DOI 10.1016/j.msea.2010.03.019
4. **Shukla D. K.** and Hussain A., “Finite element modeling of process induced stresses and warpage in fiber reinforced polymer composite in autoclave process”, *Int. J. of Mech. Engg. & Res.*, 3(1); 14-17, 2013. ISSN: 2249-0019
5. Verma V. and **Shukla D. K.**, “Effect on micro hardness of epoxy reinforced with rod shaped nano alumina”, *Int. J. of Mech. Engg. & Res.*, 3(5); 367-370, 2013. ISSN: 2249-0019
6. **Shukla D. K.**, Sonia P. and Verma V., "Characterization of fracture properties of epoxy-alumina polymer nanocomposite", *Applied Mech. and Mat.*, 390; 557-61, 2013. ISSN: 1662-7482
7. Verma V., **Shukla D. K.** and Kumar V., “Estimation of fatigue life of epoxy-alumina polymer nanocomposites”, *Pro. Mat. Sci.*, 5; 669-678, 2014. ISSN: 2211-8128
8. Hiremath V, Singh M. and **Shukla D. K.**, “Effect of Post Curing Temperature on Viscoelastic and Flexural Properties of Epoxy/Alumina Polymer Nanocomposites”, *Pro. Engg.*, 97; 479-87; 2014. ISSN: 1877-7058, Scopus
9. Hiremath V. and **Shukla D. K.**, “Viscoelastic and flexural properties of epoxy/alumina polymer nanocomposites”, *Adv. in Mat. & Processing Tech.*, 1; 13-18; 2015. ISSN: 2374-068X (Print) 2374-0698 (Online) Scopus, ESCI

10. Hiremath V. and **Shukla D. K.**, "Effect of particle morphology on viscoelastic and flexural properties of epoxy-alumina polymer nanocomposites" *Plastics Rubber and Composites*, Vol. 45(5), pp.199-206, 2016. ISSN:1465-8011E-ISSN:1743-2898, SCI, Scopus
11. Mishra S. K., **Shukla D. K.** and Patel R. K., "Flexural Properties of Functionally Graded Epoxy-Alumina Polymer Nanocomposite" *Materials Today: Proceedings*, Vol. 5(2), pp.8431-35, 2018/1/1. ISSN: 2214-7853, Scopus IF 2.59 C-11
12. Sharma A. Pandey A., **Shukla D. K.** and Pandey K. N., "Effect of self-Healing by Dicyclopentadiene Microcapsules on Fatigue Life of Epoxy", *Materials Today: Proceedings*, Vol. 5, pp.21256-262, 2018. ISSN: 2214-7853, Scopus IF 2.59 C-17
13. Singh A. K, Shukla D. K., Prasad N. E., "Fracture Behavior of p-Aramid and ultra high molecular weight polyethylene based hybrid composites", *Procedia Structural Integrity*, Vol. 14, pp.720-728,2019. ISSN: 2452-3216, Scopus, DOI: 10.1016/j.prostr.2019.05.090 IF-0.85 C-2
14. Mishra S. K., **Shukla D. K.** and Patel R. K., "Effect of particle morphology on flexural properties of functionally graded epoxy-alumina polymer nanocomposite" *Materials Research Express*, Vol. 6 (12), pp.1250i9, 2020, ISSN: 2053-1591, SCI, Scopus, DOI 10.1088/2053-1591/ab70e2. IF-1.921 (SCIE, Scopus, Feb 07) IF-2.3 C-14
15. Gupta S. K., **Shukla D. K.**, "Quasi-static and Dynamic Lap Shear Strength of Aluminium Joints Bonded with Epoxy/Alumina Nanocomposite Adhesive", *Journal of Dynamic Behavior of Materials*, ISSN 2199-7446, ESCI, SCOPUS Vol. 6, pp. 186-196, 2020. <https://doi.org/10.1007/s40870-020-00235-x>. (Feb 06)
16. Gupta S. K., **Shukla D. K.**, "Effect of stress rate on shear strength of aluminium alloy single lap joints bonded with epoxy/nanoalumina adhesives", *International Journal of Adhesion and Adhesives*, Vol. 99, pp. 2020, 102587, ISSN: 0143-7496, SCIE, SCOPUS, <https://doi.org/10.1016/j.ijadhadh.2020.102587>, IF. 3.4 C-15 (June)
17. Hiremath V. and Shukla D. K., "Rheological Properties and Curing Behaviour of Epoxy-Alumina Nanocomposites" *Materials Today: Proceedings*, Vol. 22, 2732–2740, 2020. ISSN: 2214-7853, SCOPUS
18. Bharti A., Gupta S. K., and **Shukla D. K.**, "Finite element analysis of load-carrying capacity of single lap joints bonded with epoxy/nanoalumina adhesives", *Eng. Res. Express* 2(3), 2020, 035023 ISSN: 2631-8695, ESCI, SCOPUS <https://doi.org/10.1088/2631-8695/abb18d> (Sept 05)

19. Verma V., Sayyed A. H. M., Sharma C., and **Shukla D. K.**, "Tensile and fracture properties of epoxy alumina composite: role of particle size and morphology", *Journal of Polymer Research*, Vol. 27, pp. 388, 2020. ISSN: 1022-9760, SCIE, SCOPUS, <https://doi.org/10.1007/s10965-020-02359-z> (Nov 26)
20. Verma R., Shukla M. and Shukla D. K., "Effect of glass fibre hybridization on the water absorption and thickness of alkali treated kenaf-epoxy composites" *Materials Today: Proceedings*, Vol. 44(1), 2093–96, 2020. ISSN: 2214-7853, SCOPUS <https://doi.org/10.1016/j.matpr.2020.12.181>
21. Gupta S. K., **Shukla D. K.** and Dhake K. R., "Effect of nanoalumina in epoxy adhesive on lap shear strength and fracture toughness of aluminium joints", *The Journal of Adhesion*, Vol. 97(2) pp. 117-139 2021. ISSN: 0021-8464, SCIE, SCOPUS DOI: 10.1080/00218464.2019.1641088, (online July 14, 2019)
22. Mishra S. K., **Shukla D. K.** and Patel R. K., "Fracture toughness of functionally graded nanocomposite in quasi-static loading", *Polymer Bulletin*, Vol. 79, pp. 1787-1801, 2022, ISSN: 0170-0839, SCI, SCOPUS, <https://doi.org/10.1007/s00289-021-03594-0> (online Feb 23, 2021)
23. Verma R., Shukla M. and **Shukla D. K.**, "Effect of glass fiber hybridization on the mechanical properties of unidirectional, alkali-treated kenaf-epoxy composites", *Polymer Composites*, Vol. 43(10), pp. 7483-7499, 2022, ISSN:1548-0569, SCIE, SCOPUS DOI: 10.1002/pc.26835, Accepted June 2022,
24. Singh A. K, **Shukla D. K.**, Prasad N. E., " Deformation Behaviour of Polymeric Hybrid Composite under Impact Loading ", *Fibers and Polymers*, Vol. 23, pp. 2042-2051, 2022 (July 31). ISSN:1229-9197, SCIE, SCOPUS IF 2.347 <https://doi.org/10.1007/s12221-022-2082-2>
25. Gupta S K, **Shukla D. K.** and Gupta S., "Determination of shear-strength of steel joint bonded with epoxy/nano-Al₂O₃ adhesive using Kolsky bar", *NanoWorld J*, Vol. 9(S1), pp. S465-S469, 2023(April 2023). SCOPUS doi: 10.17756/nwj.2023-s1-089 IF 1.53
26. Roy S. and **Shukla D. K.**, "Fatigue behavior of repaired cracks with composite patches bonded with adhesive: A Review", *NanoWorld J*, Vol. 9(S1), pp. S504-S507, 2023 (May 2023). SCOPUS <https://doi.org/10.17756/nwj.2023-s1-097> IF 1.53
27. Pandey A., Sharma A., **Shukla D. K.** and Pandey K. N., " Effect of Self-Healing by Dicyclopentadiene Microcapsules on Tensile and Fatigue Properties of Epoxy Composites", *Materials*, Vol. 16, pp.5191, 2023 (July24), SCIE, <https://doi.org/10.3390/ma16145191>. IF 3.4,

National Journals:

1. Sharma K. K., Duggal S. K. and **Shukla D. K.**, “Effect of addition of Nanoalumina on Properties of Cement Mortar” Civil Engineering and Construction Review, 28 (7); 50-52; 2015. ISSN: 0975-9034

International conferences/workshops

1. **Shukla D. K.** and Parameswaran V., “Synthesis and characterization of epoxy-alumina platelet nanocomposites”, International Conference on Computational and Experimental Engineering and Sciences, Dec 1-6, 2005, IIT Madras, Chennai.
2. **Shukla D. K.** and Parameswaran V., “Reinforcing epoxy with nanometer size platelets: Experiments and modeling”, Proceedings Indo-Russian Workshop on Problems in Nonlinear Mechanics of Solids with Large Deformation, Nov 22-24, 2006, IIT Delhi.
3. **Shukla D. K.** and Parameswaran V., “Improvement in mechanical properties of epoxy alumina platelet composites due to functionalization”, Poster presented in International Workshop on Nanoceramics and Nanocomposites, Sep 8-9, 2007, IIT Kanpur.
4. Parameswaran V., **Shukla D. K.** and Shukla A., “Tracking high speed crack propagation using ultra high speed imaging”, Second Joint MAE/NTU-IITK workshop, 5-6 April 2008, IIT Kanpur
5. Verma V., **Shukla D. K.** and Singh H., “A Study of fatigue and fatigue crack propagation of polymer composite”, International Conference on Recent Trends in Engineering Technology and Management, Feb 26- 27, 2011, BIET Jhansi, UP, India.
6. **Shukla D. K.** and Srivastava R., “Effect of Alumina Platelet Reinforcement on Dynamic Mechanical Properties of Epoxy”, Proceedings of the World Congress on Engineering 2011 Vol III WCE 2011, July 6 - 8, 2011, London, U.K.
7. **Shukla D. K.** and Hiremath V., “Micromechanical Modeling of Dynamic Mechanical properties of Alumina Platelet-Reinforced Polymer Composites”, IV International Conference on Recent Advances in Composite Materials, Feb 18-21, 2013, Goa, India.
8. **Shukla D. K.** and Verma V., “Effect of Nanoparticle inclusions on some Mechanical Properties of Epoxy-Alumina Polymer Nanocomposites”, IV

International Conference on Advancements in Polymeric Materials, Mar 01-03, 2013, Lucknow, India.

9. Hasan S. A. M., **Shukla D. K.** and Verma V., “Effect of Morphology of particles on tensile and fracture properties of Epoxy/ Alumina Polymer Nanocomposites” Ist International Conference on Mechanical Engineering: Emerging Trends for sustainability, Jan 29-31, 2014, MANIT Bhopal, India.
10. Hiremath V. and **Shukla D. K.**, “Evaluation of Viscoelastic Properties of Epoxy/Alumina Polymer Nanocomposites”, 2nd International Conference on Advanced Functional Materials, Feb 19-21, 2014, Thiruvananthapuram, Kerala, India.
11. Hiremath V. and **Shukla D. K.**, “Viscoelastic and Flexural Properties of Epoxy/Alumina Polymer Nanocomposites”, Advances in Materials and Processing Technologies, Nov 16-20, 2014, Dubai, UAE.
12. Hiremath V., Singh M. and **Shukla D. K.**, “Effect of post curing temperature on tensile properties of epoxy/alumina polymer nanocomposites”, International Conference on Multifunctional Materials, Structures and Applications, Dec 22-24, 2014, MNNIT Allahabad, India.
13. Mishra S. K. and **Shukla D. K.**, “Hardness and Transparency of Epoxy-Alumina Polymer Nanocomposites”, International Conference on Multifunctional Materials, Structures and Applications, Dec 22-24, 2014, MNNIT Allahabad, India.
14. Gupta S K, **Shukla D. K.** and Agrawal A., “Finite Element Modelling of Polymer Nanocomposites as an Adhesive”, International Conference on Advances in Materials, Manufacturing and Applications (AMMA 2015), April 9-11, 2015, NIT Tiruchirappalli, India. (ISBN 978-93-84743-68-0 © 2015 Bonfring).
15. Gupta S K, **Shukla D. K.**, “Effect of surface roughness on shear strength of adhesively bonded metal joints”, International Conference and Technology Meet on Military and Marine Applications, May 23-25, 2015, IWCEM Pune, India.
16. Singh M. K., **Shukla D. K.**, and Gupta S. K., “Fracture Strength in Cleavage of Epoxy/Alumina Nanocomposite Adhesives in Bonded Aluminium Joints”, International Conference on Nanotechnology for better living, May 25-29, 2016, NIT Srinagar (IIT Kanpur), India.
17. Gupta S. K., **Shukla D. K.**, and Singh M. K., "Lap Shear Strength and Fracture Toughness of Epoxy/Alumina Nanocomposite Adhesive in Bonded Aluminium Joints", Eleventh European Adhesion Conference and Thirteenth International

Triennial Conference on the Science and Technology of Adhesion and Adhesives (EURADH 2016 ADHESION '16), September 21-23, 2016.

18. Sharma A. K., Pandey A., **Shukla D. K.** and Pandey K. N., "Effect of self-Healing Dicyclopentadiene Microcapsules on Fracture Toughness of Epoxy", International Conference on Smart Engineering Materials ICSEM-2016, October 20-22, 2016, RVCE, Bengaluru, India. (Materials Today: Proceedings, Vol. 5, pp.21256-262, 2018)
19. Singh A. and **Shukla D. K.**, "Influence of Ferrite Fraction on Tensile Properties and Fatigue Crack Growth Behaviour of Nodular Cast Iron" 6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR 2016), December 16-18, 2016, COE Pune, India.
20. Gupta S K, **Shukla D. K.** and Bharti A., "Effect of alumina nanoparticles on shear strength of epoxy adhesive: Experimental and finite element analysis", Advances in Mechanical, Industrial, Automation and Management Systems (AMIAMS-2017), February 3-5, 2017, MNNIT Allahabad, India.
21. Mishra S. K. and **Shukla D. K.** and Patel R. K., "Flexural Properties of Functionally Graded Epoxy-Alumina Polymer Nanocomposite", International Conference on Emerging Trends in Materials and Manufacturing Engineering (IMME17), March 10-12, 2017, NIT Tiruchirapalli, India. (Materials Today: Proceedings, Vol. 5(2), pp.8431-35, 2018)
22. Prajapati A., **Shukla D. K.**, Pandey A. and Pandey K. N., "Effect of self-Healing by Dicyclopentadiene Microcapsules on Fatigue Life of Epoxy", International Conference on Composite Materials and Structures ICCMS-2017, December 27-29, 2017, IIT Hyderabad, India.
23. Singh A. K, **Shukla D. K.**, Prasad N. E., "Low Velocity Impact Response of Hybrid Composites", International Conference on Composite Materials and Structures ICCMS-2017, December 27-29, 2017, IIT Hyderabad, India.
24. Singh A. K, **Shukla D. K.**, Prasad N. E., "Fracture Behavior of p-Aramid and ultra high molecular weight polyethylene based hybrid composites", Second International Conference on Structural Integrity and Exhibition (SICE-2018), July 23-24, 2018, Hyderabad, India. Procedia Structural Integrity, Vol. 14, pp.720-728,2019. ISSN: 2452-3216, Scopus, DOI: 10.1016/j.prostr.2019.05.090
25. Hiremath V. and Shukla D. K., "Rheological Properties and Curing Behaviour of Epoxy-Alumina Nanocomposites" 2nd International Conference on Materials Manufacturing and Modelling, ICMMM – 2019 March 29-31, 2019, VIT Vellore, India. Materials Today: Proceedings 22 (2020) 2732–2740

26. Singh A. K, **Shukla D. K.**, Prasad N. E., "Tensile Property of Ultra High Molecular - Weight Polyethylene (UHMWPE) Fibre and Its Composite Laminate" International Conference on Applied Mechanical Engineering Research (IC-AMER2019), May 02-05, 2019, NIT Warangal, India. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-15-1201-8_94, ISBN: 978-981-15-1200-1
27. Gupta S. K. and **Shukla D. K.**, "Effect of loading rate on lap shear strength of steel joints bonded with epoxy/alumina nanocomposite adhesive", International Conference on Advanced Materials and Process for Defence Application, DMRL Hyderabad September 23-25, 2019.
28. Manavendra Mishra, D. K. Shukla and S.B. Mishra, "An Overview on the Erosion Wear Behaviour of Microwave Cladding," Sixth Asian Conference on Heat Treatment and Surface Engineering, Organized by ASM International Chennai Chapter in association with International Federation of Heat Treatment and Surface Engineering (IFHTSE) held at Chennai Trade Centre, Chennai, India during March 5-7, 2020.
29. Verma R., Shukla M. and **Shukla D. K.**, "Effect of glass fibre hybridization on the water absorption and thickness of alkali treated kenaf-epoxy composites" 11th International Conference on Materials Processing and Characterization (ICMPC - 2020) 15-17 Dec 2020, IIT Indore. Materials Today: Proceedings, Vol. 44(1), 2093–96, 2020. <https://doi.org/10.1016/j.matpr.2020.12.181>
30. Yadav V. K., **Shukla D. K.**, Verma N., " Finite element modeling of fatigue properties of polymer nanocomposites", 2nd International Conference on Materials Science & Engineering (ICMSE-2022), June 11-12, 2022, NIT Jalandhar. *IOP Conf. Ser.: Mater. Sci. Eng.* **1248** 012092
31. Ram S. D., **Shukla D. K.** and Gupta A., "Fatigue strength of copper and mild steel single lap joints bonded with epoxy-alumina nanocomposite adhesive", 2nd International Conference on Materials Science & Engineering (ICMSE-2022), June 11-12, 2022, NIT Jalandhar. *IOP Conf. Ser.: Mater. Sci. Eng.* **1248** 012091
32. Verma R., Shukla M. and **Shukla D. K.**, "A Treatise on Mechanical Properties of Natural and Synthetic Fibre Reinforced Hybrid Polymer Composites", 1ST International Conference on Advances in Biopolymers and Composites: Health, Environment, and Energy (ABC-HEE, 2022), Oct 20-22, 2022, MNNIT Allahabad.
33. Gupta S K, **Shukla D. K.** and Gupta S., "Determination of shear-strength of steel joint bonded with epoxy/nano-Al₂O₃ adhesive using Kolsky bar", International

Conference on Innovations in Mechanical and Materials Engineering (IMME-2022), Nov 4-6, 2022, MNNIT Allahabad.

34. Roy S. and **Shukla D. K.**, "Fatigue behavior of repaired cracks with composite patches bonded with adhesive: A Review", International Conference on Innovations in Mechanical and Materials Engineering (IMME-2022), Nov 4-6, 2022, MNNIT Allahabad.
35. Pal N. K., **Shukla D. K.** and Yadav V. K., "Shear Strength of Al-Mg Single Lap Joints bonded with Epoxy-Alumina Nano-adhesive," International Hybrid Conference on Nanostructured Materials and Polymers (ICNP 2023) May 12-14, 2023, Mahatma Gandhi University Kottayam, Kerala.

National conferences/workshop

1. Kumar A. and **Shukla D. K.**, "Stress-Strain Curve of Polymer Nanocomposites by Finite Element Modeling", Indian Conference on Applied Mechanics (INCAM) 2013, 4 – 6 July 2013, IIT Madras, India.
2. Sharma A. K., Pandey A., **Shukla D. K.** and Pandey K. N., "Self-healing in epoxy/microcapsules composites: Effect on Fracture Toughness", National Workshop on Fatigue and Fracture of Engineering Materials and Structures, Dec. 17-18, 2014, MNNIT Allahabad, India.
3. Sharma K. K., Duggal S. K. and **Shukla D. K.**, "Effect of addition of Nanoalumina on Properties of Cement Mortar" Innovative Building Materials & Technology for sustainable Constructions (BMTSC-2015), IET Lucknow, 22-23 August, 2015, Pg. 55-58.
4. Mishra S. K. and **Shukla D. K.** and Patel R. K., " Fracture toughness of functionally graded epoxy- alumina polymer nanocomposites", Indian Conference on Applied Mechanics (INCAM) 2017, July 05-07, 2017, MNNIT Allahabad, India.
5. Mishra S. K. and **Shukla D. K.** and Patel R. K., " Fuctionally Graded Epoxy- Alumina polymer nanocomposite under low velocity empact", National Conference on Industrial Application of Nanoscience and Nanotechnology (IANN-2019), November 15-16, 2019, MNNIT Allahabad, India.