

Dr. Abhishek Kumar
Professor
Department of Applied Mechanics
Motilal Nehru National Institute of Technology Allahabad, Prayagraj

Patent(s):

1. Title: *A shape memory polymer composite (SMPC) based hinge with self-locking mechanism*. (Application No.: 202511097848); Inventors: Avadesh Yadav, Satish Kumar, and **Abhishek Kumar**; Status: **Filed**.

A. International Journal

1. Deeksha Gupta, Ashish Dubey and **Abhishek Kumar**, “Improved Microwave Absorption Behaviour of Fe-Dispersed B₄C Composites” *Ceramics International*, Accepted (2025). (SCIE: Impact factor- 5.1)
2. Vivekanand Singh, Sanjay Mishra, Sanjeev Kumar Singh Yadav, **Abhishek Kumar**, Sushil Kumar Singh, Avadesh Yadav, “Performance Enhancement of Bio-Epoxy via rGO Reinforcement: Mechanical, Thermal, Morphological, and Spectroscopic Insights”, *Polymers for Advanced Technologies*, Accepted (2025). (SCIE: Impact factor- 3.4) <https://doi.org/10.1002/pat.70463>
3. Rushikethu Badardinni, Ravindra Singh, Avadesh Yadav, Satish Kumar, Renganathan Sujithra and **Abhishek Kumar**, “Thermo-mechanical behaviour and shape memory performance of graphene nanoplatelet-reinforced epoxy nanocomposites”, *Polymers for Advanced Technologies*, Accepted (2025). (SCIE: Impact factor- 3.4) <https://doi.org/10.1002/pat.70443>
4. Mohit Kumar Pandey, **Abhishek Kumar** & R. Sujithra, “Experimental Investigation of 3D Printing Parameters on Mechanical Properties of TPU-87A and TPU-95A”, *Journal of Materials Engineering and Performance*, Accepted (2025). (SCIE: Impact factor- 2.2) <https://doi.org/10.1007/s11665-025-12653-w>
5. B. Kranthi Kumar, Amit Kumar Singh Chauhan, and **Abhishek Kumar**, “Microstructure, Erosion, and Corrosion studies on Laser NiCoCr-Cladded EN8 Steel”, *Journal of Process Mechanical Engineering*, Accepted (2025). (SCIE: Impact factor- 2.2) <https://doi.org/10.1177/09544089251382974>
6. Deeksha Gupta, Ashish Dubey and **Abhishek Kumar**, “Synergistic Impact of Multi-layering, MWCNT Dispersion and Ball Milling on the Enhanced Microwave Absorption of Boron Carbide”, *Journal of Materials Science: Materials in Electronics*, 36, 1074 (2025). (SCIE: Impact factor- 2.8) <https://doi.org/10.1007/s10854-025-15132-z>
7. Chahare Sandhya, Renganathan Sujithra and **Abhishek Kumar**, “Comparative analysis of build direction in SLA-printed parts based on optical, quasi-static, fracture, and dynamic experiments”, *Journal of Materials Engineering and Performance*, Accepted (2025). (SCIE: Impact factor- 2.2) <https://doi.org/10.1007/s11665-025-11579-7>
8. Vivekanand, Sanjay Mishra Singh, Sanjeev Kumar Singh Yadav, **Abhishek Kumar**, Avadesh Yadav, “Development and characterization of SWCNT reinforced bio-epoxy (EcoPoxy) nanocomposites”, *Polymer Bulletin*, 82, 8609–8631 (2025). (SCIE: Impact factor- 4.0) <https://doi.org/10.1007/s00289-025-05835-y>
9. Avadesh Yadav, Satish Kumar, and **Abhishek Kumar**, “Investigation of MWCNT Dispersion in Epoxy-Based Shape Memory Polymer Using Probe Ultrasonication: Characterization and Mechanical Evaluation”, *Journal of Materials Science*, 60, 9374–9395 (2025). (SCIE: Impact factor- 3.5) <https://doi.org/10.1007/s10853-025-10976-6>
10. Deeksha Gupta, Ashish Dubey and **Abhishek Kumar**, “Improving microwave absorption bandwidth of nickel-dispersed boron carbide by double layering using

- genetic algorithm*” *Ceramics International*, 51 (19), Part A, 27475-27484 (2025). (SCIE: Impact factor- 5.1) <https://doi.org/10.1016/j.ceramint.2025.03.421>
11. Avadesh Yadav, Sourabh Kumar Singh, Sreetam Das, Satish Kumar, and **Abhishek Kumar**, “*Shape Memory Polymer and Composites for Space Applications: A Review*” *Polymer Composites*, 46, 1647–11683 (2025). (SCIE: Impact factor- 4.8) <http://dx.doi.org/10.1002/pc.29707>
 12. Sushil Kumar Singh, Avadesh Yadav, Samarjit Singh, Anuj Jain and **Abhishek Kumar**, “*Enhancement of Mechanical and Viscoelastic Properties of Epoxy and Epoxy-Nano Silica Composites using Self-Healing Microcapsules*” *Materials Today Communications*, 43, 111741 (2025). (SCIE: Impact factor- 3.7) <https://doi.org/10.1016/j.mtcomm.2025.111741>
 13. Amit Kumar Singh Chauhan, Mukul Shukla, **Abhishek Kumar**, “*Insights into microstructure and mechanical properties of 3D printed Ti-6Al-4V alloy at different layer thicknesses*” *Materials Letters*, 138047 (2025). (SCIE: Impact factor- 2.7) <https://doi.org/10.1016/j.matlet.2025.138047>
 14. Amit Kumar Singh Chauhan, Mukul Shukla, **Abhishek Kumar**, “*Effect of NiAl and NiCr Coatings on High Cycle Fatigue and Corrosion Behavior of Direct Metal Laser Sintered Ti-6Al-4V Alloy*” *Materials Today Communications*, 42, 111102 (2025). (SCIE: Impact factor- 3.7) <https://doi.org/10.1016/j.mtcomm.2024.111102>
 15. Deeksha Gupta, Prabhakar Kumar, Ashish Dubey and **Abhishek Kumar** “*Development of metamaterial using waste materials for microwave absorption*” *Brazilian Journal of Physics*, Volume 54, Article Number 200, (2024). (SCIE: Impact factor-1.5) <https://doi.org/10.1007/s13538-024-01571-2>
 16. Amit Kumar Singh Chauhan, Mukul Shukla, **Abhishek Kumar**, “*Effect of Laser Sintering Parameters on the Microstructure, Mechanical Properties and Corrosion Behaviour of Titanium Grade 5 Alloy*” *Journal of Materials Engineering and Performance*, 33, 12806–12818 (2024). (SCIE: Impact factor-2.2) <https://doi.org/10.1007/s11665-024-09935-0>
 17. Avadesh Yadav, Sreetam Das, Rushikethu Badardinni, Satish Kumar and **Abhishek Kumar**, “*Effect of dual dispersion of carbon fiber and silica nanoparticles on recovery performance of shape memory epoxy*”, *Smart Materials and Structures*, 33 (6) 065044 (2024) (SCIE: Impact factor-3.7) DOI: 10.1088/1361-665X/ad4d37
 18. Samarjit Singh, Rakesh Bhaskar, Kannan Badri Narayanan, **Abhishek Kumar**, Kishore Debnath, “*Development of silicon carbide (SiC)-based composites as microwave-absorbing materials (MAMs): a review*” *Journal of the European Ceramic Society*, 44 (13), 7411-7431 (2024) (SCI: Impact factor-5.8) <https://doi.org/10.1016/j.jeurceramsoc.2024.05.032>
 19. Amit Kumar Singh Chauhan, Mukul Shukla, **Abhishek Kumar**, “*Solid particle erosion behaviour of laser sintered heat treated Ti-6Al-4V alloy*” *Russian Journal of Nondestructive Testing*, 60 (5), 583–590 (2024). (SCIE: Impact factor-0.9, Scopus Indexed) <https://link.springer.com/article/10.1134/S1061830924601533>
 20. Samarjit Singh, Sushil Kumar Singh, **Abhishek Kumar** & Biplab Das “*Influence of Reduced Graphene Oxide Flakes Addition on the Electromagnetic Wave Absorption Performance of Silicon Carbide-Based Wave Absorber*” *JOM: The Journal of The Minerals, Metals & Materials Society (TMS)* 76, 486–495 (2024) (SCI: Impact factor-2.5) <https://doi.org/10.1007/s11837-023-06222-6>
 21. Avadesh Yadav, Sourabh Kumar, Sreetam Das, Satish Kumar and **Abhishek Kumar**, “*Shape recovery and mechanical properties investigation of carbon fiber dispersed*

- Bisphenol-A based epoxy composite*” Smart Materials and Structures, 32 (9) 095016 (2023) (SCIE: Impact factor-3.7) <https://doi.org/10.1088/1361-665X/aceb27>
22. Naveen Kumar, Ajaya Bharti, **Abhishek Kumar**, Ritesh Kumar Kushwaha, Kunvar Kant Patel, “*Nano material coatings for bio implant applications: A re-analysis*” Materials Physics and Mechanics, 51(6):92-106 (2023). (Scopus Indexed, ESCI) DOI: [10.18149/MPM.5162023_9](https://doi.org/10.18149/MPM.5162023_9)
 23. Amit Kumar Singh Chauhan, Mukul Shukla, **Abhishek Kumar**, “*3D Thermal Simulation of Powder Bed Fusion Additive Manufacturing of Stainless Steel*” International Journal on Interactive Design and Manufacturing, 17, 517–524 (2023). (Scopus Indexed, ESCI: Impact factor-2.1) <https://doi.org/10.1007/s12008-023-01234-7>
 24. Prabhakar Kumar, Deeksha Gupta, Ashish Dubey, **Abhishek Kumar** “*Utilization of Zn-dispersed waste materials for realizing thin meta-structure with improved microwave absorption*”, Composites: Mechanics, Computations, Applications: An International Journal, 14(2):39–55 (2023). (Scopus Indexed, ESCI, Impact factor-0.3) <https://doi.org/10.1615/CompMechComputApplIntJ.2022044803>
 25. Samarjit Singh, Sushil Kumar Singh, Pappu Kumar Harijan, Sunil Kumar Yadav, **Abhishek Kumar**, “*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*”, Journal of Materials Science: Materials in Electronics, 33, 17828-17841 (2022). (SCI: Impact factor-2.8) <https://doi.org/10.1007/s10854-022-08647-2>
 26. Rahul Singh, Sunkulp Goel, R. Jayaganthan and **Abhishek Kumar**, “*Studies on microstructure evolution, mechanical and corrosion behaviors of cryo-rolled 316L steel*” Journal of Materials Engineering and Performance, 31, 9660–9669, 2022. (SCIE: Impact factor-2.2) <https://doi.org/10.1007/s11665-022-06993-0>
 27. Sushil Kumar Singh, Dheeraj Gunwant, Ajitanshu Vedrtam, **Abhishek Kumar** and Anuj Jain “*Synthesis, Characterization, and Modelling the Behavior of in-situ ZrO₂ Nanoparticles Dispersed Epoxy Nanocomposite*” Engineering Fracture Mechanics, 263, 108300, 2022. (SCI: Impact factor- 4.7) <https://doi.org/10.1016/j.engfracmech.2022.108300>
 28. Sunkulp Goel, Dharmendra Singh, Nikhil Kumar, **Abhishek Kumar** Chauhan, & Punit Singh, “*Effect of water and mercury quenching on the microstructure and mechanical behavior of room temperature rolled Zircaloy-2*”, Indian Journal of Engineering & Materials Sciences; Vol: 29, 432-436, 2022 (SCI: Impact factor-0.9) DOI: [10.56042/ijems.v29i4.47288](https://doi.org/10.56042/ijems.v29i4.47288)
 29. S Singh, SK Singh, R Singh, **A Kumar**, A Nigam; “*Effect of Ni on the dielectric behavior and microwave absorption performance of ZnO composites*”, Materials Physics and Mechanics 47 (3), 416-422, 2021. (ESCI) DOI: [10.18149/MPM.4732021_3](https://doi.org/10.18149/MPM.4732021_3)
 30. Rahul Singh, Samarjit Singh, B. Kranthi Kumar, **Abhishek Kumar**, “*Mechanical behaviour and corrosion study of 304L austenitic steel processed by constrained groove pressing*”, Indian Journal of Engineering and Materials Sciences, 28, 258-264 (2021). (SCI: Impact factor- 0.9) DOI: [10.56042/ijems.v28i3.45775](https://doi.org/10.56042/ijems.v28i3.45775)
 31. Rahul Singh, Surya Deo Yadav, Biraj Kumar Sahoo, Sandip Ghosh Chowdhury and **Abhishek Kumar**, “*Phase transformation, mechanical properties and corrosion behavior of 304L austenitic stainless steel rolled at room and cryo temperature*”, Defence Science Journal, 71(3), 383-389, 2021. (SCIE: Impact factor- 0.8) <https://doi.org/10.14429/dsj.71.16721>
 32. Abir Roy and **Abhishek Kumar**, “*Corrosion behaviour of Multiaxial compressed*

- AlMgSi alloy*”, Defence Science Journal, 71(3), 359-364, 2021. (SCIE: Impact factor-0.8) <https://doi.org/10.14429/dsj.71.16723>
33. Naveen Kumar, Ajaya Bharti, **Abhishek Kumar** and Abhishek Nigam, “*Effect of process parameters on the crystal- parameters of Cu-Zn spinel-ferrites*”, Materials Physics and Mechanics 47 (2021) 65-73. (Scopus Indexed, ESCI) http://dx.doi.org/10.18149/MPM.4712021_7
 34. Rahul Singh, Shubham Agrahari, Surya Deo Yadav and **Abhishek Kumar**, “*Microstructural evolution and mechanical properties of 316 austenitic stainless steel by CGP*”, Materials Science & Engineering A, 812, Article id: 141105, 2021. (SCI: Impact factor- 6.1) <https://doi.org/10.1016/j.msea.2021.141105>
 35. Sushil Kumar Singh, **Abhishek Kumar** and Anuj Jain, “*Mechanical and viscoelastic properties of SiO₂/epoxy nanocomposites post-cured at different temperatures*”, Plastics, Rubber and Composites: Macromolecular Engineering, 50(3), 116-126, 2021. (SCI: Impact factor- 2.021) <http://dx.doi.org/10.1080/14658011.2020.1840203>
 36. Rahul Singh, Deepak Sachan, Deepak Singh, Surya Deo Yadav, **Abhishek Kumar**, “*Microstructural Evolution and Mechanical Properties of Constrained groove pressed 304 Austenitic Stainless Steel*”, Journal of Materials Engineering and Performance, 30, 290-301, 2020. (SCIE: Impact factor-2.2) <https://doi.org/10.1007/s11665-020-05372-x>
 37. Samarjit Singh and **Abhishek Kumar**, Dharmendra Singh, “*Enhanced microwave absorption performance of SWCNT/SiC composites*” Journal of Electronic Materials, 49(12), 7279-7291, 2020. (SCI: Impact factor-2.2) <https://doi.org/10.1007/s11664-020-08460-9>
 38. Yogesh Iyer Murthy, Sumit Gandhi, **Abhishek Kumar**, “*Assessment of current and potential applications of magnesium alloys in construction industry*”, Interciencia, Vol. 45 (5), 21-39, 2020. (Scopus; SCIE: Impact factor-0.396)
 39. Abir Roy, Manish Tiwari, Sandeep Sahu, Sumeet Mishra and **Abhishek Kumar** “*Microstructure, texture and mechanical properties of Al-Mg-Si alloy processed by multi-axial compression*”, Journal of Materials Engineering and Performance, 29(6), 3876–3888, 2020. (SCIE: Impact factor-2.2) <https://link.springer.com/article/10.1007/s11665-020-04917-4#citeas>
 40. Samarjit Singh, **Abhishek Kumar**, Smriti Agarwal, Dharmendra Singh, “*Synthesis and tunable microwave absorption characteristics of flower-like Ni/SiC composites*” Journal of Magnetism and Magnetic Materials, Vol. 503, Article 166616, 2020. (SCI: Impact factor-3.097) <https://doi.org/10.1016/j.jmmm.2020.166616>
 41. Yogesh Iyer Murthy, Sumit Gandhi, **Abhishek Kumar**, “*Magnesium alloy anodes for corrosion prevention of reinforcements in concrete*”, International Journal on Emerging Technologies, Vol.11, Issue 2, 656-661, 2020. (Scopus Indexed)
 42. Samarjit Singh, **Abhishek Kumar**, Dharmendra Singh, “*Improved microwave absorption behavioral response of Ni/SiC and Ni/SiC/Graphene composites: A comparative insight*” Journal of Alloys and Compounds, Vol. 823, Article 153780, 2020. (SCI: Impact factor-6.371) <https://doi.org/10.1016/j.jallcom.2020.153780>
 43. Yogesh Iyer Murthy, Sumit Gandhi, **Abhishek Kumar**, “*Micro characterization of pure Mg and AZ91D used as sacrificial anodes in reinforced cement concrete*”, International Journal of Science Technology and Research, Vol.8 (11), 400-403, 2019. (Scopus Indexed)
 44. Sushil Kumar Singh, Deepak Singh, **Abhishek Kumar** and Anuj Jain, “*An analysis of mechanical and viscoelastic behavior of nano-SiO₂ dispersed epoxy composites*”, Silicon, Vol. 12(10), 2465-2477, 2019. (SCIE: Impact factor-2.941)

<https://doi.org/10.1007/s12633-019-00335-x>

45. Singh S., and **Kumar A**, “*Selection of Core shell Material based Electromagnetic Wave Absorbers in 2 to18 GHz using TOPSIS and VIKOR Ranking Methods*”, Defence Science Journal, 69(5), 431-436, 2019. (SCIE: Impact factor- 0.8) <https://doi.org/10.14429/dsj.69.14946>
46. Saurabh, Maurya A. K., Singh S., and **Kumar A**, “*Microwave Absorption Performance of Graphene Nanoplatelets Dispersed SiC*”, Defence Science Journal, 69(5), 437-441, 2019. (SCIE: Impact factor- 0.8) <https://doi.org/10.14429/dsj.69.14946>
47. Yogesh Iyer Murthy, Sumit Gandhi, **Abhishek Kumar**, “*Corrosion Mitigation of Reinforcement in Concrete using Magnesium Anodes*”, International Journal of Recent Technology and Engineering, Vol. 8(4), 1950- 1956, 2019. (Scopus Indexed) [doi: 10.35940/ijrte.c6272.118419](https://doi.org/10.35940/ijrte.c6272.118419)
48. Shadma Afzal, Preeti Sirohi, Alok Kumar Yadav, Manish Pratap Singh, **Abhishek Kumar**, Nand K.Singh, “*A comparative screening of abiotic stress tolerance in early flowering rice mutants*”, Journal of Biotechnology, Vol. 302, 112-122, 2019. (SCIE: Impact factor- 4.1; Scopus Indexed) <https://doi.org/10.1016/j.jbiotec.2019.07.003>
49. Rahul Singh, Surya Deo Yadav, Nikhil Malviya, Sunkulp Goel, R. Jayaganthan & **Abhishek Kumar**, “*Finite Element Analysis and Mechanical Behavior of 316L Stainless Steel Processed by Room Temperature Rolling*”, Materials Science Forum, Vol. 969, 508-516, 2019. (Scopus Indexed) <https://doi.org/10.4028/www.scientific.net/MSF.969.508>
50. Rahul Singh, Gaurav Rajan, B. Kranthi Kumar, Raviraj Verma, R. Jayaganthan & **Abhishek Kumar**, “*Numerical Analysis of Constrained Groove Pressing and Mechanical Behaviour of Processed 316L Stainless Steel*”, Materials Science Forum, Vol. 969, 901-908, 2019. (Scopus Indexed) <https://doi.org/10.4028/www.scientific.net/MSF.969.901>
51. **Abhishek Kumar**, Samarjit Singh, and Dharmendra Singh, “*Effect of heat treatment on morphology and microwave absorption behavior of milled SiC*” Journal of Alloys and Compounds, Vol. 772, 1017-1023, 2018. (SCI: Impact factor-6.371) <https://doi.org/10.1016/j.jallcom.2018.09.136>
52. Yogesh Iyer Murthy, Sumit Gandhi, **Abhishek Kumar**, “*Comparative Study of Pure Mg and AZ91D as Sacrificial Anodes for Reinforced Cement Concrete Structures in Chloride Atmosphere*”, Civil Engineering Journal, Vol. 4 (8), 1750-1759, 2018. (Scopus Indexed) DOI: [10.28991/cej-03091110](https://doi.org/10.28991/cej-03091110)
53. Samarjit Singh, Ankur Sinha, Raj H. Zunke, **Abhishek Kumar**, and Dharmendra Singh, “*Double layer microwave absorber based on Cu dispersed SiC composites*”, Advanced Powder Technology, Vol. 29 (9), 2019-2026, 2018. (SCI: Impact factor-4.969) <https://doi.org/10.1016/j.appt.2018.05.008>
54. Samarjit Singh, Sankalp Shukla, **Abhishek Kumar** and Dharmendra Singh, “*Influence of Zn dispersion in SiC on electromagnetic wave absorption characteristics*”, Journal of Alloys and Compounds, Vol. 738, 448-460, 2018. (SCI: Impact factor-6.371) <https://doi.org/10.1016/j.jallcom.2017.12.190>
55. Sushil Kumar Singh, Samarjit Singh, **Abhishek Kumar** and Anuj Jain, “*Thermo-mechanical behavior of TiO₂ dispersed epoxy composites*”, Engineering Fracture Mechanics, Vol. 184, 241-248, 2017. (SCI: Impact factor-4.898) <https://doi.org/10.1016/j.engfracmech.2017.09.005>
56. **Abhishek Kumar**, Vijaya Agarwala and Dharmendra Singh, “*Microwave absorbing behavior of metal-dispersed TiO₂ nanocomposites*”, Advanced Powder Technology, Vol.

- 25, 483–489, 2014. (SCI: Impact factor-4.969) <https://doi.org/10.1016/j.appt.2013.07.006>
57. **Abhishek Kumar**, Vijaya Agarwala and Dharmendra Singh, “*Effect of milling on dielectric and microwave absorption properties of SiC based composites*”, Ceramic International, Vol. 40(1), 1797-1806, 2014. (SCI: Impact factor-5.532) <https://doi.org/10.1016/j.ceramint.2013.07.080>
58. **Abhishek Kumar**, Vijaya Agarwala and Dharmendra Singh, “*Effect of Particle Size of BaFe₁₂O₁₉ on the Microwave Absorption Characteristics in X-Band*”, Progress in Electromagnetics Research M, Vol. 29, 223-236, 2013. (Scopus Indexed, ESCI) [doi:10.2528/PIERM13011604f](https://doi.org/10.2528/PIERM13011604f)
59. D. Singh, **A. Kumar**, S. Meena, and V. Agarwala, “*Analysis of frequency selective surfaces for radar absorbing materials*”, Progress in Electromagnetics Research B, Vol. 38, 297-314, 2012. (Scopus Indexed) [doi:10.2528/PIERB11121601](https://doi.org/10.2528/PIERB11121601)
60. **Abhishek Kumar**, Vijaya Agarwala and Dharmendra Singh, “*Effect of Mg substitution on microwave absorption of BaFe₁₂O₁₉*”, Advanced Materials Research, Vol. 585, 62-66, 2012. (Scopus Indexed) <https://doi.org/10.4028/www.scientific.net/AMR.585.62>

International Conference

61. Akanksha Singh, Avadesh Yadav, **Abhishek Kumar** and Satish Kumar, “*Design and Analysis of Shape Memory Polymer Based Self Expandable Biocompatible Stent*”, in the 10th International and 31st All India Manufacturing Technology, Design & Research (AIMTDR 2025) Conference organized by IIT Indore, India held on 11th-13th December 2025.
62. Deeksha Gupta, Ashish Dubey, **Abhishek Kumar**, “*Microwave Absorption Behavior of Graphene Dispersed Boron Carbide*”, 1st International Conference & Exhibition on Advanced Materials and Structures (ICEAMS 2025) organized by Indian Institute of Technology Hyderabad during July 2-5, 2025.
63. Avadesh Yadav, Sourabh Kumar Singh, Satish Kumar and **Abhishek Kumar**, “*Deep Learning-Based Prediction of Dynamic Mechanical Behavior in Epoxy-Based Shape Memory Polymers*”, International Conference on Advances in Science & Technology (ICAST 2025) organized by Institute of Technology and Management (ITM), Dehradun, Uttarakhand, India, held during 23-25, June 2025.
64. Deeksha Gupta, Ashish Dubey, **Abhishek Kumar**, “*Effect of ball milling on microwave absorption properties of B₄C*”, 4th Global Ceramic Leadership Roundtable Ceramics for Frontier Sectors: Emerging Advances and Prospects (CerAP2024) organized by Indian Institute of Technology Roorkee during March 11-12, 2024.
65. Zainab Momin, A. Mishra and **Abhishek Kumar**, “*Design modification of cooling channel for improved cooling of lithium-ion batteries*”, The 64th Battery Symposium in Japan, Osaka, Japan (Physical Mode) held during 28-30, November 2023.
66. Avadesh Yadav, Rushikethu Badardinni, Ratnesh Kumar Yadav, Satish Kumar and **Abhishek Kumar**, “*Temperature-Step/Hold Multi-Frequency Dynamic Mechanical Analysis to Study Viscoelastic Behaviour of Shape Memory Epoxy for Space Structure and Component*”, Third Global Conference on Recent Advances in Sustainable Materials (GC-RASM 2023) organized by PGP College of Engineering & Technology Namakkal, Tamil Nadu, India, held during 27 - 28, July 2023.
67. Yogesh Iyer Murthy, Sumit Gandhi and **Abhishek Kumar**, “*Crystallographic Study of Solid Solutions in The Mg-Ca-Nd Ternary System at 400 °C*”, in the International Conference on Advancements in Interdisciplinary Research (AIR-2022) organized by MNNIT Allahabad, Prayagraj, held during 6-7 May 2022. Proceedings-AIR2022, River Publishers (ISSN: 2794-2333) [doi: https://doi.org/10.13052/rp-978-87-7022-828-2](https://doi.org/10.13052/rp-978-87-7022-828-2)

68. Sreetam Das, Sourabh Kumar Singh, Avadesh Yadav, Satish Kumar and **Abhishek Kumar**, “*Finite Element Analysis of a Shape Memory Polymer for Space Actuator Applications*”, in the *International Conference on Advancements in Interdisciplinary Research (AIR-2022)* organized by MNNIT Allahabad, Prayagraj, held on 6-7 May 2022. Proceedings-AIR2022, River Publishers (ISSN: 2794-2333) **doi:** <https://doi.org/10.13052/rp-978-87-7022-828-2>
69. Prabhakar Kumar, Deeksha Gupta and **Abhishek Kumar**, “*Dispersion of Zn in waste material for microwave absorption property*”, in the *International Conference on Advancements in Interdisciplinary Research (AIR-2022)* organized by MNNIT Allahabad, Prayagraj, held on 6-7 May 2022.
70. Prabhakar Kumar, Prashant Singh, Nigatu D. Tilahun, R. Sujithra, **Abhishek Kumar**, “*Finite Element Analysis of Re-entrant and modified curved re-entrant auxetic structure for energy-absorption*”, in the *International Conference on Advancements in Interdisciplinary Research (AIR-2022)* organized by MNNIT Allahabad, Prayagraj, held on 6-7 May 2022. Proceedings-AIR2022, River Publishers (ISSN: 2794-2333) **doi:** <https://doi.org/10.13052/rp-978-87-7022-828-2>
71. Sushil Kumar Singh, Samarjit Singh, Sourabh Shukla, **Abhishek Kumar** and Anuj Jain, “*Influence of SiO₂ nanoparticle reinforcement on the thermo-mechanical behavior of two different epoxy composite systems: A comparative study*”, in *International Conference on Sustainable Engineering* (ICSE-2021) organized by Government Engineering College Bikaner, Rajasthan, held on 26-27 February, 2021.
72. Samarjit Singh, Sushil Kumar Singh, Rahul Singh, **Abhishek Kumar**, “*Ball milled Ni dispersed SiC composites for improved microwave absorption response*”, in *International Conference on Sustainable Engineering* (ICSE-2021) organized by Government Engineering College Bikaner, Rajasthan, held on 26-27 February, 2021.
73. Rahul Singh, Samarjit Singh, B. Kranthi Kumar, **Abhishek Kumar**, “*Mechanical behaviour and corrosion study of 304L austenitic steel processed by constrained groove pressing*”, in *International Conference on Sustainable Engineering* (ICSE-2021) organized by Government Engineering College Bikaner, Rajasthan, held on 26 – 27 February, 2021.
74. 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.
Materials Today: Proceedings Vol. 38 (5), 2861-2865, 2021. (Scopus Indexed) <https://doi.org/10.1016/j.matpr.2020.09.137> **(Best Paper Award)**
75. B. Kranthi Kumar, Rahul Singh and **Abhishek Kumar**, “*Characterization and Mechanical Properties of Refractory High Entropy Alloys: A brief review*”, in the 3rd international workshop on High Entropy Materials (IWHM-2020) organized by IIT Kanpur, during March 7-8, 2020.
76. B. Kranthi Kumar, Rahul Singh and **Abhishek Kumar**, “*High Entropy Alloys in Biomedical Applications: A brief review*”, in the *International Conference on Biotechnological Interventions for societal Development (BioSangam-2020)* organized by MNNIT-Allahabad, during February 21-23, 2020.
77. Rahul Singh, Surya Deo Yadav, Nikhil Malviya, Sunkulp Goel, R. Jayaganthan & **Abhishek Kumar**, “*Finite element analysis and Mechanical behavior of 316L stainless steel processed by room temperature*” in international conference “ICRAMMT – 2018”

- organized by MLRITM, Hyderabad, Telangana, held on 19-20 November, 2018.
78. Rahul Singh, Gaurav Rajan, B. Kranthi Kumar, Raviraj Verma, R. Jayaganthan & **Abhishek Kumar**, “*Numerical analysis of constrained groove pressing and mechanical behaviour of processed 316L stainless*” in international conference “ICRAMMT – 2018” organized by MLRITM, Hyderabad, Telangana, held on 19-20 November, 2018.
 79. Yogesh Iyer Murthy, Sumit Gandhi, **Abhishek Kumar**, “*A critical Review on the use of sugarcane bagasse ash in cement mortar and concrete*”, Recent Development in Cement Composites, (RDCC-2018), 24-25th Aug. 2018.
 80. Rahul Singh, Deepak Sachan, Raviraj Verma, Sunkulp Goel, **Abhishek Kumar**, “*Mechanical behavior of 304 austenitic stainless steel processed by cryogenic rolling*”, AMPCO 2017 at IIT Roorkee, Nov. 30- Dec. 2, 2017.
Materials Today: Proceedings Vol. 5 (9, Part 1), 16880-16886, 2018. (Scopus Indexed)
<https://doi.org/10.1016/j.matpr.2018.04.090>
 81. Rahul Singh, I. K. Bhat, Raviraj Verma, R. Jayaganthan, **Abhishek Kumar**, “*Effect of processing temperature over the mechanical behaviour of 304 austenitic stainless steel*”, NMD-ATM 2017 at Pune (The Indian Institute of Metals), November 11-14, 2017.
 82. Rahul Singh, Deepak Sachan, Sunkulp Goel, R. Jayaganthan, **Abhishek Kumar**, “*Effect of temperature over the mechanical behaviour of Titanium alloy (Ti06Al-4V)*”, NMD-ATM 2017 at Pune (The Indian Institute of Metals), November 11-14, 2017.
 83. Sushil Kumar Singh, **Abhishek Kumar** and Anuj Jain, “*Unveiling the impact of ZrO₂ dispersion over the mechanical behavior of epoxy resin*”, NMD-ATM 2017 at Pune (The Indian Institute of Metals), November 11-14, 2017.
 84. Deepak Singh, Sushil Kumar Singh, **Abhishek Kumar** and Anuj Jain, “*A Finite Element Approach to Determine Young’s Modulus of Epoxy-Silica Nanocomposite*”, NMD-ATM 2017 at Pune (The Indian Institute of Metals), November 11-14, 2017.
 85. **Abhishek Kumar**, Samarjit Singh and Dharmendra Singh, “*Development of Double Layer Microwave Absorber using Genetic Algorithm*”, IOP Conf. Ser.: Mater. Sci. Eng. 234 012009; ATDMAE 2017 at Nanyang Technical University, Singapore during July 12-14, 2017.
IOP Conf. Series: Materials Science and Engineering 234 (2017). (ISSN: 1757-8981)
<https://doi.org/10.1088/1757-899X/234/1/012009>
 86. Samarjit Singh, Ankur Sinha, Raj Hemant Zunke, **Abhishek Kumar** and I.K. Bhat, “*AHP based TOPSIS and VIKOR analysis for selection of EM wave absorbers at X-band*”, INCAM 2017 at MNNIT Allahabad during July 5-7, 2017.
 87. **Abhishek Kumar** and Samarjit Singh, “*Development of Coatings for Radar Absorbing Materials at X-Band*”, IOP Conf. Ser.: Mater. Sci. Eng. 330, 012006; 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.
IOP Conf. Series: Materials Science and Engineering 330 (2018) 012006.
<https://doi.org/10.1088/1757-899X/330/1/012006>
 88. Sushil Kumar Singh, **Abhishek Kumar** and Anuj Jain, “*Effect of Nanoparticles Dispersion on Viscoelastic Properties of Epoxy–Zirconia Polymer Nanocomposites*”, IOP Conf. Ser.: Mater. Sci. Eng. 330, 012001; 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.
IOP Conf. Series: Materials Science and Engineering 330 (2018) 012001.

<https://doi.org/10.1088/1757-899X/330/1/012001>

89. Yogesh Iyer Murthy, Sumit Gandhi and **Abhishek Kumar**, “*Corrosion Prevention of Steel Reinforcement in 7.5% NaCl Solution Using Pure Magnesium Anode*”, IOP Conf. Ser.: Mater. Sci. Eng. 330, 012003; 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.
IOP Conf. Series: Materials Science and Engineering 330 (2018) 012003.
<https://doi.org/10.1088/1757-899X/330/1/012003>
90. Rahul Singh, Sukulp Goel, Raviraj Verma, R. Jayaganthan and **Abhishek Kumar**, “*Mechanical behavior of 304 Austenitic stainless steel processed by Room temperature rolling*”, IOP Conf. Ser.: Mater. Sci. Eng. 330, 012017; 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.
IOP Conf. Series: Materials Science and Engineering 330 (2018) 012017.
<https://doi.org/10.1088/1757-899X/330/1/012017>
91. Dharmendra Singh, P. Nageswararao, **A. Kumar** Chauhan and S.K. Rajput, “*Microstructure, mechanical and corrosion behavior of Al 5083 alloy processed by multi directional forging at cryogenic temperature*”, 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.
92. Sushil Kumar Singh, **Abhishek Kumar** and Anuj Jain, “*Improving tensile and flexural properties of SiO₂-epoxy polymer nanocomposite*”, International conference on Materials Processing and Characterization (ICMPC-2017) organized by GRIET Hyderabad, during 17-19 March, 2017.
Materials Today: Proceedings Vol. 5 (2, Part 1), 6339-6344, 2018. (Scopus Indexed)
<https://doi.org/10.1016/j.matpr.2017.12.243>
93. Bandana Rajpoot, Sushil Kumar Singh, **Abhishek Kumar**, and Anuj Jain, “*Development of SiO₂-epoxy Nanocomposites and their Thermo-mechanical Properties*”, International Conference on Nanomaterials and Nanotechnology (ICNANO-2017) organized by International Association of Advanced Materials (IAAM) in collaboration with VBRI Press AB, Sweden during 01 - 03 March, 2017 at Vinoba Bhave Research Institute, Allahabad, India. DOI: 10.5185/amp.2020.020401; ISSN: 2002-4428
94. Samarjit Singh, Gaurav Goswami and **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 & technology (ICETNMST-2017) held at NIT Nagaland during 4-6 January, 2017.
International Journal of Research in Engineering and Technology, Vol. 06 (01) 2017. eISSN: 2319-1163 | pISSN: 2321-7308. <https://doi.org/10.15623/ijret.2017.0613006>
95. Sushil Kumar Singh, Amit Kumar, Samarjit Singh, **Abhishek Kumar** and Anuj Jain, “*Effect of surface treatment of SiO₂-nanoparticles on mechanical properties of epoxy-nanocomposites*” International conference on emerging trends in nanomaterials science & technology (ICETNMST-2017) held at NIT Nagaland during 4-6 January, 2017.
96. **Kumar, A.**, Singh, S. “*Design of two-layer microwave absorber at X-band using genetic algorithm*”, 11th International Conference on Industrial and Information Systems (ICIIS-

- 2016) 03rd-04th, December 2016, Conference Proceedings, pp. 503-506, January- 2018.
97. Dharmendra Singh, P.N. Rao, **A. Kumar**, P.K. Gupta, D. Venketeswarlu, “*Effect of initial grain size on microstructure and mechanical behavior of cryorolled 5083 AA*”, International Conference on Advancements in Aeromechanical Materials for Manufacturing (ICAAMM-2016) held at MLRIT Dundigal (Hyderabad) India during June 26-28, 2016.
Materials Today: Proceedings Vol. 4 (8), 7609-7617, 2017. (Scopus Indexed)
(<https://doi.org/10.1016/j.matpr.2017.07.094> ISSN: 2214-7853)
 98. 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.
AIP Conference Proceedings **1728**, 020586 (2016). <http://dx.doi.org/10.1063/1.4946637>
 99. Z. Vakil, **A. Kumar**, A. Jain, K. M. Gupta, Mohd Najim, D. Singh, “*Effect of Cerium (Ce 3+) doping on structural, magnetic and dielectric properties of Barium Ferrite (BaFe₁₂O₁₉)*”, IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT), 2015 held at SVS College of Engineering JP Nagar Arasampalayam Pollachi Coimbatore, India during March 05-07, 2015.
IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT), pp. 1-4, 2015. DOI: [10.1109/ICECCT.2015.7225982](https://doi.org/10.1109/ICECCT.2015.7225982)
 100. **Abhishek Kumar**, Vijaya Agarwala and Dharmendra Singh, “*Effect of Co substitution on microwave absorption of BaFe₁₂O₁₉*” at International Conference “The Minerals, Metals & Materials Society, 143rd Annual Meeting & Exhibition” held at San Diego, California, USA during February 16-20, 2014.
 101. **Abhishek Kumar**, Vijaya Agarwala, Dharmendra Singh and Rajkumar Jani, “*Effect of Silicon Carbide Morphology on Dielectric Properties at X-band*”, at 57th DAE Solid State Physics Symposium (SSPS-DAE 2012) held at Indian Institute of Technology - Bombay, Mumbai, during December 3-7, 2012.
 102. **Abhishek Kumar**, Vijaya Agarwala and Dharmendra Singh, “*Effect of Mg substitution on microwave absorption of BaFe₁₂O₁₉*” at International Conference on Advances in Materials and Processing Challenges and Opportunities (AMPCO-2012) held at IIT Roorkee, during November 2-4, 2012.
 103. **Abhishek Kumar**, Vijaya Agarwala and Dharmendra Singh, “*Effect of calcination temperatures on morphology and microwave absorption properties of SiC*”, at International Conference on Material Science and Technology (ICMST-2012) held at Kottayam, Kerala during June 10-14, 2012.
 104. **Abhishek Kumar**, Vijaya Agarwala and Dharmendra Singh, “*Synthesis, Reaction Kinetic and Microwave Absorption Studies of BaFe₁₂O₁₉ Nanocrystals*”, at International Conference on Functional Materials for Defence (ICFMD-2012) held at Defence Institute of Advanced Technology, Pune during May 18-22, 2012.
 105. **Abhishek Kumar**, Gaurav Goswami and I. K. Bhat “*Prediction of Fatigue Crack Growth in Al-alloys using Artificial Neural Network*” 5th International Conference on Theoretical, Applied, Computational and Experimental Mechanics (ICTACEM 2010) from 27th -29th December, 2010 at IIT Kharagpur.
 106. Manoj Maurya, **Abhishek Kumar** and I. K. Bhat “*An experimental comparative study of cyclic creep behavior on different commercially available Al alloys*” 5th International Conference on Theoretical, Applied, Computational and Experimental Mechanics (ICTACEM 2010) from 27th -29th December, 2010 at IIT Kharagpur.

107. **Abhishek Kumar**, Suneel Kumar and I. K. Bhat “*Effect of Cooling Rates on Cyclic Creep Behaviour on Al 1100 and Cu C2300 alloy*” 5th International Conference on Theoretical, Applied, Computational and Experimental Mechanics (ICTACEM 2010) from 27th -29th December, 2010 at IIT Kharagpur.
108. Aftab Alam, **Abhishek Kumar** “*Finite Element Analysis of K-dominance region for functionally graded materials*” 4th International Conference on Theoretical, Applied, Computational and Experimental Mechanics (ICTACEM-2007) and Reunion of the Aerospace Engineering Graduates of IIT Kharagpur, from 27th -29th December, 2007 at IIT Kharagpur.

National Conference

109. B. Kranthi Kumar, **Abhishek Kumar**, Vikram. S, N. Shamanth Kumar, “*Enhancing the working life of Industrial components by Laser Cladding Technology*” in the 78th Annual Technical Meeting of Institute (IIM-ATM 2024) held at Bengaluru during November 20-22, 2024.
110. Saurabh, Ratnesh Kumar Yadav, Sandeep Sahu, Deepak Kumar and **Abhishek Kumar**, “*Effect of high pressure torsion on microstructure and microhardness of Magnesium AZ91*” in the National Symposium of Research Scholar on Metallurgy and Materials (NSRS-2024) organized by the Department of Materials Science and Engineering at Indian Institute of Technology Kanpur during March 09-10, 2024.
111. Sourabh Kumar Singh, Avadesh Yadav, Akanksha Singh, Satish Kumar, **Abhishek Kumar** “*Analysis of Copper Reinforcement Effect on Epoxy Based Shape Memory Polymer for Smart Actuators*” 5th Indian Conference on Applied Mechanics, National Institute of Technology Jamshedpur, November 11 - 13, 2022.
Advances in Applied Mechanics. INCAM 2022. Lecture Notes in Mechanical Engineering. Springer, Singapore. Print ISBN: 978-981-97-0471-2; Online ISBN: 978-981-97-0472-9. https://doi.org/10.1007/978-981-97-0472-9_14
112. Sourabh Kumar Singh, Avadesh Yadav, Satish Kumar, and **Abhishek Kumar**, “*Analysis of shape memory polymer-based space actuators*”, National Conference on Artificial Intelligence enabled Aerobots and Hydrobots (ASET-2022), Vikram Sarabhai Space Centre, Thiruvananthapuram, March 17 - 18, 2022.
113. Samarjit Singh and **Abhishek Kumar**, “*Improved Microwave Absorption Response of Ball Milled Ni Dispersed SiC Composites*”, 4th Prof. Vijaya Agarwala Memorial National Conference on Microwave Absorbing Materials (VAMMAM-2020) organized by IIT Roorkee and MNNIT-Allahabad, during August 23rd -24th, 2020.
114. Abir Roy and **Abhishek Kumar**, “*Corrosion Behaviour of Multiaxial Compressed Al-Mg-Si Alloy*”, 4th Prof. Vijaya Agarwala Memorial National Conference on Microwave Absorbing Materials (VAMMAM-2020) organized by IIT Roorkee and MNNIT-Allahabad, during August 23rd -24th, 2020.
115. Harikesh, S. D. Yadav and **Abhishek Kumar**, “*Modelling of Tensile Flow and Work Hardening Behaviour of Stainless Steel Using a Dislocation Density-Based Model*”, 4th Prof. Vijaya Agarwala Memorial National Conference on Microwave Absorbing Materials (VAMMAM-2020) organized by IIT Roorkee and MNNIT-Allahabad, during August 23rd -24th, 2020.
116. Rahul Singh, Samarjit Singh, Balina Kranthi Kumar and **Abhishek Kumar**, “*Study of Mechanical and Corrosion Behaviour of Constrained Groove Pressed Austenitic Steel-304L*”, 4th Prof. Vijaya Agarwala Memorial National Conference on Microwave Absorbing Materials (VAMMAM-2020) organized by IIT Roorkee and MNNIT-Allahabad, during August 23rd -24th, 2020.

117. Sushil Kumar Singh, **Abhishek Kumar** and Anuj Jain, “*Impact of SiO₂ Nanoparticle Weight Fraction on Mechanical Properties of Two Epoxy Polymers*”, 4th Prof. Vijaya Agarwala Memorial National Conference on Microwave Absorbing Materials (VAMMAM-2020) organized by IIT Roorkee and MNNIT-Allahabad, during August 23rd -24th, 2020.
118. Rahul Singh, Surya Deo Yadav, Biraj Kumar Sahoo, Sandip Ghosh Chowdhury and **Abhishek Kumar**, “*Phase transformation, mechanical properties and corrosion behavior of 304L austenitic stainless steel rolled at room and cryo temperature*”, 4th Prof. Vijaya Agarwala Memorial National Conference on Microwave Absorbing Materials (VAMMAM-2020) organized by IIT Roorkee and MNNIT-Allahabad, during August 23rd -24th, 2020.
119. B. Kranthi Kumar, Rahul Singh and **Abhishek Kumar**, “*Effect of nanoparticles dispersion in High entropy alloys: A brief review*”, in national conference Industrial application of Nano-Science and Nano-Technology (IANN-2019) organized by MNNIT-Allahabad, held during November 15-16, 2019.
120. 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 Nano-Technology (IANN-2019) organized by MNNIT-Allahabad, held during November 15-16, 2019.
121. Rahul Singh, Gaurav Rajan and **Abhishek Kumar**, “*Parameter optimization of sliding wear of Cryogenically-rolled Austenitic steel using Taguchi method*” in conference AEMSD – 2018 organized by NML-Jamshedpur, to be held on 18-19 January, 2019. **(IInd Best Presentation)**
122. Deepak Kumar, Kushagra Gupta, Sumit Soni, Virendra Kumar Gond, Rishi Tiwari and **Abhishek Kumar**, “*Effect of nanoparticle dispersion on single lap shear strength of epoxy resin*” in conference Polymers: Usefulness and Current Concerns, organized by MNNIT Allahabad, held during 23rd-24th December, 2018.
123. Samarjit Singh, Rahul Singh and **Abhishek Kumar**, “*Effect of Ni microspheres on the dielectric behavior and microwave absorption performance of ZnO composites*” in conference ANA-2018, organized by MNNIT Allahabad, held during 21st-23rd December, 2018.
124. Samarjit Singh, **Abhishek Kumar**, “*Selection of core-shell thmaterial based electromagnetic wave absorbers in 2-18 GHz using TOPSIS and VIKOR ranking methods*”, 2nd Prof. Vijaya Agarwala Memorial National Symposium on Microwave Absorbing Materials (VAMMAM-2018) from 24th to 25th August, 2018 at IIT Roorkee, India. <https://doi.org/10.14429/dsj.69.14946>.
125. Saurabh, Anil Kumar Maurya, Samarjit Singh, **Abhishek Kumar**, “*Microwave absorption performance of graphene nanoplatelets dispersed SiC*”, 2nd Prof. Vijaya Agarwala Memorial National Symposium on Microwave Absorbing Materials (VAMMAM-2018) from 24th to 25th August, 2018 at IIT Roorkee, India. <https://doi.org/10.14429/dsj.69.14947>.
126. Sushil Kumar Singh, **Abhishek Kumar** and Anuj Jain, “*Influence of Filler Dispersion on the mechanical Behavior of ZrO₂ Dispersed Epoxy Nanocomposites*” in conference “SWAYAM – 2018” organized by BITS Pilani, K.K. Birla Goa Campus, held during 04th-06th July, 2018.
127. Rahul Singh, & **Abhishek Kumar**, “*Impact of deformation route over Mechanical and magnetic behavior of austenitic stainless*” in conference “SWAYAM – 2018” organized

by BITS Pilani, K.K. Birla Goa Campus, held during 04th to 06th July, 2018.

128. Samarjit Singh, Sushil Kumar Singh and **Abhishek Kumar**, “*Material selection for nickelbased microwave absorbing materials in 2-18 GHz frequency range using different Multi-Criteria Decision-Making Methods*” NMD-ATM 2016 held at Indian Institute of Technology Kanpur during 11-14 November, 2016.
129. Abir Roy, Rishi Shukla and **Abhishek Kumar**, “*Mechanical behavior of Al 1xxx processed by Torsion*” NMD-ATM 2016 held at Indian Institute of Technology Kanpur during 11-14 November, 2016. (**Best Poster Award**)
130. Abir Roy, **Abhishek Kumar**, Shashank Shekhar, “*Mechanical behavior of Al 5083 processed by Constrained Groove Pressing*”, in national conference on Product Design and Development at MNNIT Allahabad, during November 21-22, 2015.
131. Z. Vakil, **Abhishek Kumar**, Anuj Jain, K. M. Gupta, “*Design and Simulation of thin film based self-biased Coplanar Isolator*”, RAECE-2015 held at Indian Institute of Technology Roorkee, during February 13-15, 2015.
132. **Abhishek Kumar**, Vijaya Agarwala and Dharmendra Singh, “*Microwave Absorbing Properties of Metal-Particle Dispersed Al₂O₃*”, at National Conference on Advances in National Materials (ADNAM-2013) held at National Institute of Ocean Technology, Chennai, during February 22-23, 2013.
133. **Abhishek Kumar**, Kolli Ganapathi, Dharmendra Singh and Vijaya Agarwala, “*Radar Cross Section Measurements and Simulations of a regular shapes in the X-band*”, at National Symposium on Space Technology for Food & Environmental Security and Annual Conventions of Indian Society of Remote Sensing and Indian Society of Geomatics during December 5-7, 2012, New Delhi.
134. Pappu Kumar, **Abhishek Kumar** “*Preparation of nanocrystalline ZnCuMg ferrite powders synthesized by Sol-Gel method*” National Conference on Smart, Electronic and Engineering Materials 2010 (SEEMs’10), from 5th-6th March, 2010, at BFCET, Bathinda.

D. Book(s)/ Proceeding(s) published:

1. Edited a Proceeding of the 2022 International Conference on “*Advancements in Interdisciplinary Research towards Smart and Sustainable Society*” (AIR2022). e-ISBN: 9788770228282, doi: <https://doi.org/10.13052/rp-978-87-7022-828-2>.

E. Book Chapter published:

1. Samarjit Singh, Abhishek Nigam, Bilab Das, Thozhuvur Govindaraman Loganathan and **Abhishek Kumar** (2024) “*Selection of spinel ferrite-based electromagnetic wave absorbing composites using AHO-based TOPSIS and VIKOR approaches*”, Spinel Ferrite Materials: Fundamentals, Progress, and Applications, 1st Edition; Woodhead Publishing Series in Electronic and Optical Materials; Publisher: Elsevier, Paperback ISBN: 9780443217425, eBook ISBN: 9780443217432. <https://doi.org/10.1016/B978-0-443-21742-5.00007-3>
2. Yadav, R.K., Saurabh, Goel, S., **Kumar, A.** (2024), “*Investigating the Effectiveness of Reinforced Ice on the Mechanical Properties*”, In: Raghavendra, G., Deepak, B.B.V.L., Gupta, M. (eds) Recent Advances in Mechanical Engineering, Volume 1. ICMech-REC 2023. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-97-0918-2_33. (Print ISBN: 978-981-97-0917-5 and Online ISBN: 978-981-97-0918-2)
3. B. Kranthi Kumar, Rahul Singh, and **Abhishek Kumar**, “*Effect of Nanoparticles Dispersion in High Entropy Alloys: A Brief Review*” Industrial Application of Nanoscience and Nanotechnology, Volume-1, Chapter -10, Pages 127-135, December 2020. (ISBN: 978-93-89947-256-7)

