

NISHA M S



Department : Aeronautical Engineering

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Research Interests: Aerospace Structural Health Monitoring

PUBLICATIONS:

1. **Nisha, M. S.**, & Ramprabhu, S. (2021). Process intensified microwave absorption nanocomposite for stealth application. *Chemical Engineering and Processing-Process Intensification*, 163, 108333.
2. **Nisha, M. S.**, Ravali, K. V., Khan, F., Vinay, P., & Jairam, K. (2021). Efficient electrophoretic deposition of an intensification process to enhance the mechanical properties of glass fibre reinforced polymer. *Chemical Engineering and Processing-Process Intensification*, 160, 108298.
3. Adavi, S. S., & **Nisha, M. S.** (2021, May). GNSS positioning analysis of different positioning modes using open-source tools-A comparative study. In *2021 5th International Conference on Computer, Communication and Signal Processing (ICCCSP)* (pp. 199-203). IEEE.
4. Ananth, P. B., Abhiram, N., Krishna, K. H., & **Nisha, M. S.** (2021). Synthesis of radar absorption material for stealth application. *Materials Today: Proceedings*.

5. Jatin, J., **Nisha, M. S.**, Shariff, A., & Mithran, S. (2021). Enhancing the de-icing effects using reduced graphene oxide with boron nitride nano powder in glass fibre reinforced polymer. *Materials Today: Proceedings*.
6. Venthan, S. M., Amalraj, I. J., Kumar, P. S., & **Nisha, M. S.** (2021). Non-Newtonian Nanofluids Flow Analysis at the Ingress Section in Process intensified System. *Chemical Engineering and Processing-Process Intensification*, 108518.
7. Singh, D., Ganesan, C., & **Nisha, M. S.** (2020). Sustainability Characteristics of Damaged Carbon Fiber Composites. *International Journal of Vehicle Structures & Systems (IJVSS)*, 12(4).
8. **Nisha, M. S.** (2020) , Enhancing De-Icing Properties Using Graphene In Glass Epoxy Composite Material ", *Test Engineering and Management*
9. **Nisha, M. S.** , JA Krishna, D Singh (2019), Experimental study on electromagnetic shielding property of silicon carbide-graphene nanoparticles at x-band, *AIP Conference Proceedings*,
10. Babu, A.C., Karri, R.K., **Nisha, M.S.**, (2018), Sensor data fusion using kalman filter, *Proceedings - 2018 International Conference on Design Innovations for 3Cs Compute Communicate Control, ICDI3C 2018*, 8437083, pp. 29-36
11. **Nisha, M.S.**, Khan, P.F., Ravali, K.V. (2018), Structural health monitoring of glass fiber reinforced polymer using nanofiber sensor, *Lecture Notes in Mechanical Engineering, PartF7*, pp. 245-256.
12. **Nisha, M.S.**, Greety, D.J.B., Singh, D.(2018), Design and Development of Nanocomposite with Enhanced Thermal and Electrical Property for Electromagnetic Interference [EMI] Shielding in Aircraft's Cockpit Walls, *Materials Today: Proceedings* 5(2), pp. 8147-8151
13. **Nisha, M.S.**, Siva Kota Reddy, P, (2018), Damage sensing through electrical resistive measurement using electrospun PVDF-CNF sensor. *Lecture Notes in Mechanical Engineering, PartF7*, pp. 205-217

14. **Nisha, M. S.** and Singh, D., (2016), Manufacturing of Smart Nano Materials for structural Health Monitoring (SHM) in Aerospace application using CNT and CNF. *Journal of Nano Research*, 37: 42-50.
15. **Nisha, M. S.** and Singh, D., (2016), Development of Continuous and Real Time Structural Health Monitoring of Aircraft Primary Structure Through Embedded Carbon Nano Fiber Sensors. *Int. J. Vehicle Structures & Systems*, 8(2): 74-81.
16. **Nisha, M. S.** Singh, D., Freesta Shiny, G. and Sasirekha, B., (2016), 'Design and Manufacture of Nanofibers Using Electrospinning Technique for Aerospace Application, *Applied Mechanics and Materials*, 852: 72-78.
17. **Nisha, M. S.** Singh, D., (2016), Enhancement of β phase Crystal Formation in PVDF/MWCNT Fiber mat Sensor for Strain Sensing Application, *Journal of Advanced Engineering Research*, 3(2): 116-123.
18. Lakshmi, P., and **Nisha, M. S.**, (2015), Development of smart nano composites for Aerospace Structural Health Monitoring system, *International Journal of Applied Engineering Research*, 10(7):16303-16320.

Conferences Publication

International

1. **Nisha, M. S.** Singh, D., Design and Manufacture of Nanofibers Using Electrospinning Technique for Aerospace Application, *International Conference on Mechanical Engineering Design*, SSN College of Engineering, Chennai, 25-26 April 2016
2. **Nisha, M. S.** Singh, D., Development of nano sensor for damage monitoring in aerospace structure, *International Conference on Materials, Design and Manufacturing process - ICMDM2016*, held at Anna University, Chennai on Feb 17-19, 2016.
3. **Nisha, M. S.** Singh, D., Lakshmi, P., and Punitha, S., Identification of Smart Nano Material between CNF and MWCNT-CNF by different manufacturing process for Structural Health Monitoring (SHM) in Aerospace application, *Proceedings of*

International Conference on Advances in Materials, Manufacturing and Applications (AMMA 2015), NIT Trichy, April 9-11, 2015.

4. **Nisha, M. S.** Singh, D. Structural Health Monitoring of Glass Fiber Reinforced Composites Using Embedded Piezo Electric Sensors, *International Conference on Advances in Design & Manufacturing, (ICAD&M'14)*, NIT Trichy ,Dec 5-7,2014,

National

1. **Nisha, M. S.** Singh, D. and Freeta, S., Enhancement of beta phase crystal formation PVDF-MWCNT fiber mat sensor for strain sensing applications, *National conference on processing and characterization of Advance engineering materials -NCPAEM2016*, held at SSN, Chennai on 6th May 2016.

MOOC certifications completed

1. Successfully completed “Understanding child development: from synapse to society “an online course authorized by Utrecht University and offered through Coursera.
2. Successfully completed “ Spreadsheets for Beginners using Google Sheetsan online course authorized by Coursera Project Network and offered through Coursera.
3. Successfully completed and received a passing grade in AEASM1x: Introduction to Aerospace Structures and Materials a course of study offered by DelftX, an online learning initiative of Delft University of Technology.
4. Successfully completed an online course on “Remote Sensing & GIS Technology and Applications for University Teachers & Government Officials” which was conducted by Indian Institute of Remote Sensing (IIRS),ISRO Dehradun, during 13-06-2020 to 01-07-2020 .

FACULTY DEVELOPMENT PROGRAM

1. Completed successfully AICTE Training And Learning (ATAL) Academy FDP on "Robotics" from 26-09-2019 to 30-09-2019 at Indian Institute of Information Technology Design & Manufacturing, Kancheepuram.
2. Successfully Completed online STTP on " Smart Materials for Intelligent Future: Industrial and Defence perspective" from 12th Oct to 17th Oct 2020 organized by K S Rangasamy college of technology , Tiruchengode.
3. Successfully Completed online FDP on " Contemporary Development in Manufacturing processes, Sustainable Manufacturing and Industrial Technologies" from 9th -13th June 2020 organized by Pragati Engineering College.