

## **Dr. NAMAN JAIN (Mechanical Engineering)**

**Soft Skills:** Time-Management & Team work

### **Specialization**

**M.Tech:** Design and Production Engineering

**Ph.D:** Mechanical engineering

### **Area of Interest**

**Research:** Bio plastics; Material Characterization; Finite Element Analysis

### **Participated - In Specialized Training / Certified Courses:**

- 1) FDP- Meshfree Numerical Method in Various Engineering Application
- 2) FDP- Industry 4.0 The Application of Artificial Intelligence & Mechatronics
- 3) One moth Course- "Pro-Engineer" & "ANSYS" from CITD, Hyderabad
- 4) One moth Course- "Auto-CAD" from MiTSU CAD Center Faridabad

### **Publication - Books / Chapters / Papers / Articles / Blogs:** 1) Book-

Jain, N. 2017. Topological of Isotropic structures: Effect of self-weight and Study of Numerical Difficulties, LAP LAMBERT Academic Publication, Germany. ISBN: 978-620-2-07040-9.

### 2) Chapter-

Verma A., Parashar A., Jain N., Singh V.K., Rangappa S.M., Siengchin S. (2020) Surface Modification Techniques for the Preparation of Different Novel Biofibers for Composites. In: Biofibers and Biopolymers for Biocomposites. Springer, Cham DOI: 10.1007/978-3-030-40301-0\_1

### 3) Papers-

- Jain N., Ali S., Singh V.K., Singh K., Nitesh and Chohan S. 2019. Creep and Dynamic Mechanical behaviour of Cross-linked polyvinyl alcohol reinforced with cotton fiber laminate composites, Journal of Polymer Engineering, 2019; 39(4): 326–335, DOI: 10.1515/polyeng-2018-0286
- Jain N., Singh V.K. and Chauhan S. Dynamic and Creep-recovery Analysis of Polyvinyl Alcohol Based Cross-linked Composite Reinforced with Basalt Fiber, Materials Research Express, DOI: 10.1088/2053-1591/ab4332
- Somvanshi KS, Jain N, Gope PC, Singh VK. Mechanical Characterization and Machining Performance Evaluation of Rice Husk/Epoxy an Agricultural Waste Based Composite Material, J Mech Behav Mater.
- Verma A., Jain N. and Singh V.K. 2019. Fabrication and Characterization of Chitosan Coating Sisal Fiber Reinforced Phytigel Modified Soy Protein based Green Composite, Journal of Composite material, DOI: 10.1177/0021998319831748
- Jain N., Singh V.K. and Chauhan S. 2018. Dynamic and Creep Analysis of Polyvinyl Alcohol Based Films Blended with Starch and Protein, Journal of Polymer Engineering, 39 1): 26-35, DOI: 10.1515/polyeng-2018-0032.
- Jain, N. and Saxena, R. 2017. Effect Of Self-Weight On Topological Optimization Of Static Loading Structures, Alexandria Engineering Journal, 57: 527-535, DOI: 10.1016/j.aej.2017.01.006.

- Jain N. 2018. Effect of Higher Order Element on Numerical Instability in Topological Optimization of Linear Static Loading Structure, *Journal of Theoretical and Applied Mechanics*, 48(3): 78-94, DOI: 10.2478/jtam-2018-0024
- Jain N., 2018. Topological optimization of the fork-end of a knuckle joint *Journal of Mechanical Behavior of Materials*, 27(3-4), DOI: 10.1515/jmbm-2018-0022
- Deepmala K., Jain N., Singh V.K. and Chauhan S. 2018. Fabrication and characterization of chitosan coated human hair reinforced phytagel modified soy protein-based green composite, *Journal of Mechanical Behavior of Materials*, 27 (1-2), DOI: 10.1515/jmbm-2018-0007.
- Jain N., Singh V.K. and Chauhan S. 2017. A review on mechanical and water absorption properties of polyvinyl alcohol based composites/films, *Journal of Mechanical Behavior of Materials*, 26(5–6): 213–222, DOI: 10.1515/jmbm-2017-0027.
- Jain N., Singh V.K. and Chauhan S. 2017. Review on effect of chemical, thermal, additive treatment on mechanical properties of basalt fiber and their composites, *Journal of Mechanical Behavior of Materials*, 26(5–6): 205–211, DOI: 10.1515/jmbm-2017-0026.
- Chhavi, K.M., Deepmala, V.K., Singh, Chauhan, S. and Jain, N. 2017. Soy Protein Based Green Composite: A Review, *Research & Reviews: Journal of Material Sciences*, 5 (2):66-77, DOI:10.4172/2321-6212.1000171.
- Jain N. 2017. MATLAB Code for Structural Analysis of 2-D Structures Subjected to Static and Self-Weight Loading Conditions, *International Journal of Trend in Research and Development*, 4(1): 216-223.
- Jain N., Bankoti S. and Saxena R. 2015. Topological Optimization of Isotropic Material using Optimal Criteria Method, *International Journal for Research in Emerging Science and Technology*, 2 (2): 41-47.
- Bankoti S., Jain N. and Misra A. 2015. Topological Optimization of 3D Structures by Optimality Criteria using ANSYS, *International Journal for Research in Emerging Science and Technology*, 2 (2): 30-35.
- Jain N., Joshi R. and Rakesh S. 2015. Topological Optimization Techniques for Linear Isotropic Structures Subjected to Static and Self-Weight Loading Conditions, *International Research Journal of Engineering and Technology*, 2 (4) : 52-59.
- Tonk P., Jain N., Singh V.K. 2018. Using Thermoelectric Generators to Utilize Heat generated in Disc Brakes, *International Research Journal of Engineering and Technology*, 5 (8)1657-1663.
- Tonk P., Jain N., Singh V.K. 2018. Using Modelling and Vibration Analysis of Lamina Composite, *International Research Journal of Engineering and Technology*, 5 (10)302-308.

#### 4) Conferences-

- Jain N. and Rakesh S. 2015. Structural Analysis and Topological Optimization of Fork-end of Knuckle Joint, *International Conference on Science and Technology*, paper presented S.R.M.S Barielly Feb. 27 & 28 page 67.
- Jain N. and Singh V.K. 2017. A review on polyvinyl alcohol based green composite, *National Conference on Design, Materials and Manufacturing concerns in Production of Quality Engineering Goods*, paper presented HBTU Kanpur, March 27-29.
- Jain N., Singh V.K. and Chauhan S. 2017. Effect of starch, protein and nano-clay on thermal and mechanical properties of polyvinyl alcohol based films, *National Seminar on Advance in Engineering and Technology for Sustainable Development*, paper presented G B P U A T, Pantnagar, Nov. 25-26.
- Kumar A., Arya M., Jain N., Singh V.K. and Chauhan S. 2018. Effect of Heat Treatment on the Mechanical Properties and Microstructure of 6061 Aluminium Alloy, *International conference on International Conference Mechanical: Innovative & Emerging Trends* paper

presented MIET, Meerut, 4-5th December 2018.

· Kumar A., Arya M., Joshi P., Jain N., Singh V.K. and Chauhan S. 2018. Fabrication and Characterization of Aluminum based composites reinforced with silicon carbide particles International conference on International Conference Mechanical: Innovative & Emerging Trends paper presented MIET, Meerut, 4-5th December 2018.

**Funded Projects Undertaken:** Characterization of PVA based Crosslinked Composites Reinforced with Functionalized Nanoparticles/Fiber under TEQIP-III, AKTU, Lucknow

**Any other information:** 1) Young Scientist Award at international conference on Alternative Resources and

Technology Based Agriculture by Society of Human Resources & Innovation, Agra, India.

2) Branch topper in M.Tech in Design and Production Engineering branch in Department of Mechanical Engineering G. B. P.U.A.T., Pantnagar.

3) Best paper presentation award at National Seminar on Advance in Engineering and Technology for Sustainable Development, Nov. 25-26, 2017, organized by The Institution of Engineering, India.

4) Reviewer of Journal of Thermoplastic Composite Materials, SAGE Publication