

Mr. AMANDEEP

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EDUCATION

Program	Institution	CGPA/ Percentage	Year of Completion
PhD in Mechanical Engineering (Design Engineer)	IIT Ropar	8.2	Pursuing
M.Tech. in Mechanical Engineering (Manufacturing & Automation)	YMCA University of Science & Technology, Faridabad	8.863	2016
B.Tech. (Mechanical Engineering)	JMIT, Radaur Kurukshetra University	73.5%	2014

PROFESSIONAL EXPERIENCE

- Visiting Faculty at **DCRUST Murthal (A State Government University)**. **(Sep. 2016- April 2017)**
- **Teaching Associate** for Workshop Technology, Technology Museum Lab, Thoery of Elasticity, Kinematics of Machines at **IIT Ropar**. **(Aug. 2017- Aug. 2019)**

PUBLICATIONS

- **Patent** titled "Portable Extendable Module Assembly Structure for Shelter at High Altitude" Filed with **Indian Patent Application No. 201911014056**.
- **Paper** titled "Non-Linear Thermo-Mechanical Analysis of Stiffened Inhomogeneous Structures" Presented in **RCM 2019**, held at **Hannover, Germany**.
- Paper titled "Optimization of Brake Pedal Linkage: A Comparative Analysis Using CAE Tools" Published in **INTERNATIONAL JOURNAL OF COMPUTER AIDED ENGINEERING AND TECHNOLOGY** with paper code IJCAET-144316.
- Paper titled "Optimization of Brake Pedal Using Finite Element Simulation" Published in **INTERNATIONAL JOURNAL OF MECHANICS & SOLIDS** with paper code RIP-52224-IJM&S.
- Paper titled "Analysis of Functionally Graded Cylinders for Different Gradation Law under Coupled Thermo-Mechanical Loading" Published in **Asian Journal of Engineering and Applied Technology** with paper code AFTMME-05-AJEAT.
- **Finalist** in "**Gandhian Young Technological Innovation Award**" with Application no. 13975 for GYTI 2019.

- Analytical Study of Thermo-Mechanical Interactions in Functionally Graded Shells.
 - Analysed Functionally Graded Material for coupled **Thermo-mechanical load** numerically using FEA tool ABAQUS.
 - Working towards **Analytical Solution** to coupled Thermo-mechanical load on Functionally Graded Materials.

PROJECTS UNDERTAKEN

- **Analysis and Optimization of Brake Pedal Linkage of Tractor (M. Tech.)** (2015-16)
 - Carried out **weight reduction** of Brake Pedal linkage by incorporating material removal techniques from stress free volume using **CAE**.
 - Analysed brake pedal Linkage from Stress and Deflection point of view for different loading applications.
- **Heater with Humidifier (B. Tech)** (2013-14)
 - Designed and incorporated a humidification unit into a room heater to maintain the humidity level.
 - Selected suitable materials for the various components of the heater.

SOFTWARES

- ProE
- CATIA
- ANSYS
- ABAQUS

INTERNSHIPS

- JUDW, Jagadhri Railway Workshop
 - Observed
 1. Testing of Axles
 3. Crack detection of roller bearings
 2. Maintenance of coil springs
 4. Welding
- **Jindal Industries Limited, Hisar**
 - Examined the Galvanization of pipes.
 - Explored and analysed the manufacturing processes of seamless and seamed pipes.

EXTRA-CURRICULAR ACTIVITIES

<ul style="list-style-type: none"> • Sports 	<ul style="list-style-type: none"> • 1st Position, Basketball Ave 2K12, an Inter Engineering Tournament • 1st Position in 3 Km Race (YMCA University), 1st Runner Up at IIT Ropar Mini Marathon (8.5 Km). • 2nd Position in CBSE Cluster 15 Basketball Tournament under 19 category.
<ul style="list-style-type: none"> • Technical 	<ul style="list-style-type: none"> • 3rd Position, CHEMPRO, Rasaynick Era 2010, Technical fest of JMIT Radaur • Participant Robotics Workshop, Shaastra 2011 • Qualified Gate 2 times (2017, 2014)
<ul style="list-style-type: none"> • Leadership 	<ul style="list-style-type: none"> • Secretary, Vivekanand Manch, (A Social Club) YMCA University. • Publicity Representative Shaastra 2013. (Annual technical festival of IIT Madras)

