LITTON BHANDARI

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Education

2017-19	Indian Institute of Technology (IIT) Gandhinagar	8.29/10	M.Tech (Materials Science & Engineering)
2012-16	Bipin Tripathi Kumaon Institute of Technology	84.2%	B.Tech (Mechanical Engineering)
2011	Jaycees Public School	88%	Class XII
2009	The Shivalik High School	83.13%	Class X

Area of Interest

- Fatigue, Fracture and Creep.
- Finite Element Method.
- Materials characterization.

Internships

- **Vocational Training –** *Sansera Engineering Pvt. Ltd.,Pantnagar, Uttarakhand* ***Jan'15 - Feb'15***
  - Studied the mechanical process involved in manufacturing of connecting rods, crankshafts, rocker arms, sprockets, etc.
  - Learned about various heat treatment processes, forging, non-destructive techniques, etc.
- ***Vertical Axis Wind Turbine –*** *IIT Kanpur* ***June'15 - July'16***
  - Investigated and studied various aspects of vertical axis wind turbine.

Projects

- **Variability in fatigue life of near-α Titanium alloy IMI 834;** ***Dec'18 - July'19***
  - Collaborative project of IIT Gandhinagar and DMRL, DRDO, Hyderabad under the joint supervision of Prof. Amit Arora (IITGN) and Dr. Jalaj Kumar (DMRL, DRDO).
  - Investigated the effect of microstructure on the fatigue properties of near-α Titanium alloy IMI 834.
  - Developed a linkage between process, structure and properties.
  - Established a stress-life model based on the experimental data.
  - Integrated the stress-life model with the Finite Element Analysis (FEA) to study the elemental stress and life and extended it to perform fatigue life analysis of aero-engine components.

- **Tensile test on pine needles and crack analysis of pine needles short fiber reinforced composites;** ***June'15 – April'16***
  - Collaborative project of BTKIT, Dwarahat and IIT Kanpur under the joint supervision of Prof. Anirudh Gupta (BTKIT) and Prof. C. S. Upadhyay (IITK).
  - Fabricated short fiber pine needles reinforced composites and analyzed various properties such as flexural properties, tensile properties, etc. of the fabricated composites.

Conferences

- Oral presentation, "Variability in Fatigue life of near-α Titanium alloy IMI-834", International conference on advanced Materials and Processes for Defence Applications, Hyderabad, September 2019.

- Oral presentation, "Development and Investigation of Aluminium (Al6082) Reinforced Alumina / Aluminium Silicate MMCs by Taguchi Approach", MMM Conference, International Conference on Materials and Manufacturing Methods, July 2019.

Publications

- Bhandari, Litton et al., " Tensile test on pine needles and crack analysis of pine needles short fiber reinforced composites", IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) e-ISSN: 2278- 1684, p-ISSN: 2320-334X, Volume 12, Issue5 Ver. IV (Sept. – Oct. 2015).

- Bhandari, Litton et al. "Effect of microstructure on the fatigue properties of near-α Titanium Alloy IMI – 834" (under process).

Professional skills

- **Softwares:** MS office, C, C++, Autodesk Inventor Professional, Creo, Ansys, etc.
- **Mechanical Testings :** Tensile test, Compressive test, Bend test, Impact test, Hardness test, Fatigue test, etc.
- **Materials characterizations.**

Academic achievements

- 96.5 percentile in GATE 2016.
- 96.2 percentile in GATE 2017.
- State rank 2 in Cyber Olympiad organized by SOF in 2010.
- State rank 67 in Science Olympiad organized by SOF in 2010.

Positions of Responsibility

- **Teaching Assistant – IIT Gandhinagar** **Aug'17-Dec'18**
  - Assisted course instructor for the course of Fluid Mechanics, Mathematics, etc.
  - Assisted lab instructor for the course of Mechanical Behavior of Materials.
- **Event Organizer, Mechanovanica, Departmental technical fest- BTKIT, Dwarahat** **April'15**
  - Coordinated with a team of 25 people and ensured a successful conduction of the event.

Significant Activities

- Participated in International pre-conference workshop 2018 on structural integrity held at DMRL, Hyderabad. **July'18**
- Participated in GIAN course titled Aerospace Materials: Microstructure, Fracture & Fatigue at IIT Gandhinagar. **June'18**
- Attended CNC workshop at IIT Kanpur. **April'15**