

DOB	28 April 1996	
CONTACT ADDRESS	609 Guru Nanak Pura (West) Jalandhar City, 144009 Punjab, India	Sahildhiman943@gmail.com +9186997-39388 (M)
TITLE	Summer Research Intern Department of Mechanical Engineering Advisor: Prof. Harpreet Singh (Dean IC&SR) Indian Institute of Technology (IIT) Ropar	May 2019 - Present
CURRENT WORK	Exploring Modulation-Assisted Machining as a powder production technique for Additive Manufacturing and Powder Metallurgy. Also, evaluating mechanical properties of designed Ti-6Al-4V lattice structures for biomedical and light weight engineering applications .	
EDUCATION	<ul style="list-style-type: none"> • BACHELOR OF TECHNOLOGY July 2015 – May 2019 Department of mechanical engineering Beant College of Engineering and Technology, Gurdaspur, India Thesis Advisor: Dr. Sarabjeet Singh Sidhu Cumulative GPA : 9.11 out of 10 • SENIOR SECONDARY May 2013 – April 2014 Department of science Kendriya Vidyalaya No. 3, Jalandhar Cantt, India Cumulative GPA : 9.1 out of 10 • MATRICULATION May 2011 – April 2012 Kendriya Vidyalaya No. 3, Jalandhar Cantt, India Cumulative GPA : 9.6 out of 10 	
WORK EXPERIENCE	<ul style="list-style-type: none"> • IIT ROPAR, ROOPNAGAR, INDIA May 2019 – July 2019 Summer Research Intern • IIT ROPAR, ROOPNAGAR, INDIA January 2019 – May 2019 Undergraduate Research Intern • IIT ROPAR, ROOPNAGAR, INDIA May 2018 – July 2018 Summer Research Intern • CENTRAL INSTITUTE OF HAND TOOLS, INDIA May 2017 – July 2017 Summer Trainee 	
RESEARCH INTERESTS	<ul style="list-style-type: none"> • Testings : Mechanical, metallurgical and morphological • Domain : Metal Additive Manufacturing, Biomaterials, Modulation-Assisted Machining, Sustainable Manufacturing • Skills : Analyst - SEM, XRD, FEA, Design, Numeric Simulations and various research tools • Modelling and Simulation tools :SolidWorks, ANSYS, MATLAB 	
PUBLICATIONS	<p><u>Journal Pre-prints/Under Review</u></p> <ol style="list-style-type: none"> 1. S. Dhiman, S. S. Sidhu, P. S. Bains and M. Bahraminasab, “Mechanobiological assessment of Ti-6Al-4V fabricated via Selective Laser Melting Technique: A review.” <i>Rapid Prototyping Journal</i>; DOI: 10.1108/RPJ-03-2019-0057 (Accepted) 2. M. Singh, S. Dhiman, H. Singh, and C. C. Berndt, “Investigation on Drilled Hole Quality for Modulation-Assisted Drilling: A Comparative Study.” <i>International Journal of Advanced Manufacturing Technology</i> (Submitted) 3. S. Dhiman, M. Singh, S. Chaudhary, and S. S. Sidhu, “Mechanical assay of Additive Manufactured Ti6Al4V Cubic Lattice Structures for Bio-medical domain.” (To be submitted soon) 4. M. Singh, S. Dhiman, and H. Singh, “From scrap to raw material: Powder production via Modulation-Assisted Machining.” (To be submitted soon) 	

5. M. Singh, **S. Dhiman**, and H. Singh, "Tool wear study on Ti6Al4V during Modulation-Assisted Machining." (**In manuscript**)

Refereed Conference papers

1. M. Singh, **S. Dhiman**, H. Singh, and C. Charles, "Comparative Study of Drilled Hole Quality using Non-Destructive Testing for Conventional and Modulation-Assisted Drilling," Proceedings of 1st International Conference on Material, Manufacturing, and Decision Making (ICMMDM) 2018, Gurdaspur, India (**Best Paper Award**)

AWARDS AND ACADEMIC ACHIEVEMENTS

1. Recipient of the **Best Paper Award in ICMMDM 2019**, BCET, Gurdaspur, Punjab, India.
2. **Ranked 1st and Gold Medalist** in the department of Mechanical Engineering, BCET Gurdaspur, Punjab Technical University, Punjab (**2019**).
3. **Ranked 20th globally in NASA Annual CanSat Competition 2017, USA. Team Leader of TECHNOCRATS** (Team of 10 co-engineers for design and fabrication of the aero-probe).
4. **Best Poster Award** entitled "From scrap to raw material: Powder production via Modulation-Assisted Machining." **presented in Research Conclave 2019 held at IIT Ropar.**

PROJECTS AND THESIS

1. **Bachelor Thesis:** Parametric study on Additive Manufactured Ti-6Al-4V Lattice Structures.
2. **Summer Internship Project:** Analysis of Drilled Hole Quality and Chips during Modulation-Assisted Machining.
3. **NASA CanSat Project:** Design and fabrication of Aero-space probe surviving all portion of flight while entering planetary atmosphere.
4. **6 Months Internship Project:** Investigation on Modulation-Assisted Machining of Ti-Alloys.

RELEVANT GRADUATE COURSES AND WORKSHOPS

- Non-Traditional Machining, Mechanical Measurement and Metrology, Engineering Materials and Metallurgy, CAD/CAM, Total Quality Management, Manufacturing Practice, Industrial Waste Management, Biomedical Instrumentation.
- Attended one-day workshop on **Sustainable manufacturing** organized by IIT Ropar, sponsored by M&M panel, **Aeronautics Research and Development Board (AR&DB)**.
- Attended **one-week workshop on Manufacturing for Industry 4.0** under AKIN (Advanced Knowledge in Nutshell), Organized by Department of Mechanical Engineering, IIT Ropar.

VOLUNTEER WORK AND PARTICIPATIONS

Volunteer work

1. **Society President** (JAN-2018-MAY-2018): Fine Arts collegiate Club (FAC), Beant College of Engineering and Technology, Gurdaspur (Punjab), India.
2. **Fundraising Volunteer** (2008): Global Cancer Concern, India.
3. **Editor:** School annual magazine, Hindi section, Kendriya Vidyalaya No.3, Jalandhar Cantt, (Punjab), India.
4. **Volunteer:** Srijan an NGO to promote Art and Culture, Punjab, India.
5. **Volunteer:** NHS (National Health Services) Foundation Trust, **Birmingham, England.**

Awards and Extracurricular Participations

1. **Zonal Gold Medalist** (2016, 2017, 2018): On the spot painting (Youth Fest), Punjab Technical University (PTU), Jalandhar, Punjab, India.
2. **Inter-zonal Gold Medalist** (2017, 2018): On the spot painting (Youth Fest), Punjab Technical University (PTU), Jalandhar, Punjab, India.

Winner (2009-2017): Various Painting contests and Exhibitions organized by- All India Camel Colour Contest (AICCC), Srijan (NGO), Indian Army, Petroleum Conservation Research Association (PCRA), Punjab Technical University (PTU), Kendriya Vidyalaya Sangathan (KVS), Camel Art Foundation (CAF), Dainik Bhaskar (DB) and many other organizations.

I hereby declare that the above written particulars are true to the best of my knowledge and belief. I assure to work sincerely and prepared to do hard work duly abiding to organization.

Sincerely yours,
Sahil Dhiman