Dr. Sachin Salunkhe, Ph.D. (National Institute of Technology, Surat)
Centre for Metal Forming
Associate Professor/Mechanical Engineering

ORCID ID: 0000-0001-6542-2050 | SCOPUS ID: 57190508694
Email: drsalunkhesachin@veltech.edu.in | Mobile: +91 9822362643

Research Areas

Metal Forming, Artificial Intelligence, Additive Manufacturing, High Strain Rate

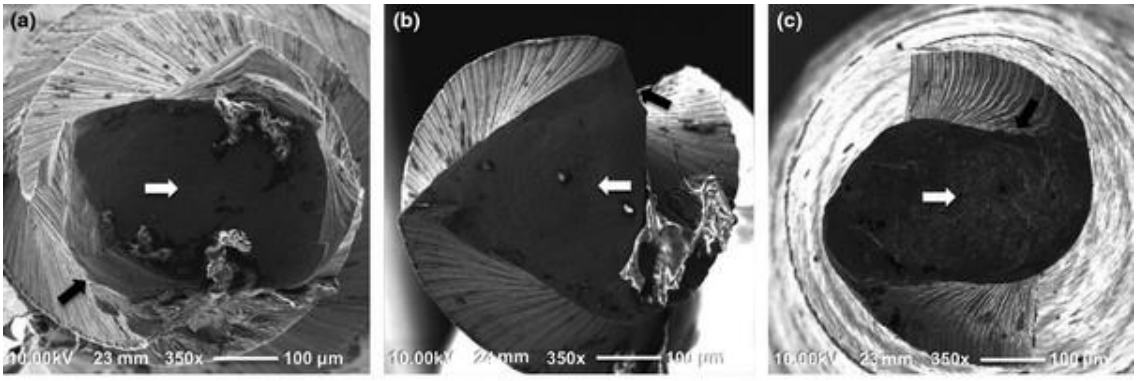
Projects & Publications Summary

Project		Publication Count		Citation Count			Impact Factor
Completed	02	SCI	042		Google	SCOPUS	45.00
Ongoing	01	SCOPUS	031	Citations	210	152	
Submitted	04	Books	002	h-index	8	7	
		Books chapters	011	i10index	3	2	

National/International Collaboration

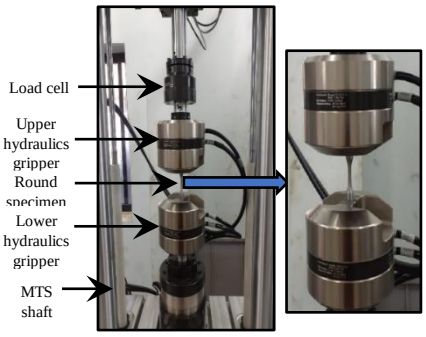
- NIT, Surat – Artificial Intelligence
- University of Aviero (Portugal) – Metal Printing
- University of Graz (Austria) – Metal AM for bio medical applications
- University of Cairo (Egypt) – Artificial Intelligence in Manufacturing
- University of Orebro (Sweden) – Selective Laser Melting

Research snippets



Research facilities

- Fatigue Testing
- Spin Coating
- Hot Air Oven



Outline of Research Works

- Development of AI model for prediction of life of AM parts
- Characterization of metal printed parts
- Online detection of AM parts using artificial intelligence
- Ultrasonic nondestructive test for metal AM parts
- Characterization of aluminum alloy (AlSi10Mg)

Details of Funded Projects

S.No	Project Title	Funding agency	Amount (Rs.)	Duration	Collaboration
1.	High Strain Rate of Laser Melted Materials for Facilitating the Application of Tools and Dies	VEL TECH SEED FUND	1,39,370/-	2021-22 (Ongoing)	-

Recent Best 5 SCI Publications

- *Mahesh Naik, D. G. Thakur, Sunil Chandel and* ***Sachin Salunkhe***, "Experimental investigations on thermal, flame retardant and impact properties of additively manufactured continuous FRPC", Polymer Composite, https://doi.org/10.1002/pc.26588, 2022
- *Vengatajalapathi Nagarajan, Ayyappan Solaiyappan, Siva Kumar Mahalingam, Lenin Nagarajan,* ***Sachin Salunkhe****, Emad Abouel Nasr, Ragavanantham Shanmugam, Hussein Mohammed Abdel Moneam Hussein,* "Meta-Heuristic Techniques-Based Para metric Optimization for Electrochemical Machining of Monel 400 Alloys to Investigate the Material Removal Rate and the Sludge", Applied Science, https://doi.org/10.3390/app12062793, 2022
- *Nitin Khedkar, Akul Bhatt,Dhruval Kapadia,Shantanu Chavan,* ***Sachin Salunkhe*** *and H M A Hussein*, "Design and Structural Simulations of a custom Li-ion Accumulator for Low range, Light weight, single seater, open cockpit, and open wheeled race car", Energies, https://www.mdpi.com/1996-1073/15/1/363, 2022
- *Lenin N, Sivakumar,* ***Sachin Salunkhe****, Emad Abouel Nasr, Jõao Paulo Davim and H M A Hussein*, "A novel methodology for simultaneous minimization of manufacturing objectives in tolerance allocation of complex assembly", Applied Sciences, https://www.mdpi.com/2076-3417/11/19/9164, 2021
- *Vinothkumar Sivalingam, Jie Sun, Lenin N, Sivakumar,* ***Sachin Salunkhe****, Yuvaraj Natarajan, Emad Abouel Nasr, Jõao Paulo Davim and H M A Hussein*, "Optimization of Process Parameters for Turning Hastelloy X under Different Machining Environments Using Evolutionary Algorithms: A Comparative Study", Applied Sciences, 2021, https://www.mdpi.com/2076-3417/11/20/9725

Books

- ***Sachin Salunkhe****, HMA Hussein, Paulo Davim*, Applications of Artificial Intelligence in Additive Manufacturing, IGI, Global, 2022.
- ***Sachin Salunkhe,*** *Sergio Amancio, Paulo Davim,* Advances in Metal Additive Manufacturing, Elsevier, 2022

Fellowships/Awards/Recognitions

- Institute (SVNIT, Surat) scholarship (From MHRD Govt. of India) on the basis of GATE (Score: 353, ALL INDIA RANKING 1866 Percent 89.72%) score for the year 2008-2010 (M-Tech)
- Institute (SVNIT, Surat) scholarship (From MHRD Govt. of India) for the year 2011- 2014 (Ph.D.).

- Recipient of "*International Travel Fellowship – Young Scientist Scheme* (Grant file no. ITS/2018/001352)" from DST-SERB, India (2018).
- ***Guest Editor*** of special issue entitled "Advances in Metal Additive Manufacturing", Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications (IF-2.014) https://journals.sagepub.com/page/pil/collections/advancesmetaladditive/index
- ***Guest Editor*** of special issue entitled "Advances in Modeling and Optimization of Manufacturing Processes", International Journal for Simulation and Multidisciplinary Design Optimization, https://www.ijsmdo.org/component/content/article/8-news/253-call-for-papers-for-a-special-issue-on-advances-in-modeling

PhD Thesis Guidance

Scholar Name	Thesis Title	University	Status	Year
1. Pravin Lokhande	Mechanical Investigations In Root Canal Preparation And Obturation Process	Vel Tech, Avadi	Completed	2022
2. Saurobh Shrivastva	Design and Development of Automobile Chassis Using 3D Printing	Vel Tech, Avadi	Ongoing	2018
3. Pavan Chandankar	Investigation of Wear Analysis of Sheet Metal Dies	Vel Tech, Avadi	Ongoing	2017
4. Swapnil Chandgude	Investigation of Material Behaviour of Composite Material	Vel Tech, Avadi	Ongoing	2019

Editorial/Review Activities

- Editor, Lubricants, MDPI (SCI)
- Metal, MDPI (SCI)
- Applied Science, MDPI (SCI)
- Precision Engineering, Elsevier. (SCI)
- Journal of Industrial Textile (SCI)
- Surface Topography: Metrology and Properties, IOP Science. (SCI)
- Arabian Journal for Science and Engineering, Springer. (SCI)
- Journal of Materials and Processing Technology (SCI)
- Meccanica, Springer (SCI)