

Faculty Profile

- 1. Name** Dr. MANOWAR HUSSAIN
(Assistant Professor)
- 2. Department** Production & Industrial Engineering
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- 5. Office Address:** Department of Production & Industrial Engineering, PO- Sindri Institute, B.I.T. Sindri, Dhanbad-828123.

6. Qualification:

Sl. No	Degree	Specialization	Institute
1.	Ph.D	Mechanical (Manufacturing) Engg.	IIT (ISM) Dhanbad
2.	M.Tech	Mechanical (Manufacturing) Engg.	IIT (ISM) Dhanbad
3.	B.Tech	Production Engineering	BIT Sindri, Dhanbad

- 7. Area of Specialization:** Manufacturing, Laser material processing, Non-Conventional Processes
- 8. PhD/ M.Tech** 03-M.Tech
Machine Tool Engineering, Metrology and Instrumentation,
- 9. Subjects Taught:** Production Technology, Modern Manufacturing Processes, Engineering Graphics (AutoCAD), Workshop Practices

10. Professional Experience:

Sl. No.	Position held	Name of Organization	From	To
1.	Assistant Professor	B.I.T. Sindri	30 th Dec, 2021	Till date
2.	Assistant Professor	Chaitanya Bharathi Institute of Technology, Hyderabad	19 th July, 2019	29 th Dec, 2021
3.	Assistant Professor	S R University (Formerly SR Engineering College), Warangal	13 th March, 2018	12 th July, 2019

11. Publications:

V) International Journal:

Sl. No	Title of the paper	Name of the Journal	Vol./No.	Year	Page No.
1.					
2.	Hard Metal-Matrix Composite Coating via Laser Cladding on Engineered Surfaces.	In Laser Applications in Manufacturing	1	2023	45-58
3.	Modeling and simulation of wire EDM to optimize the process parameters using COMSOL Multiphysics	Materials Today: Proceedings (Scopus)	-	2023	
4.	Experimental study and statistical analysis of bending titanium alloy sheet with continuous wave fiber laser	Archives of Civil and Mechanical Engineering (SCIE; IF: 4.042)	22(3)	2022	110
5.	Investigation on effects of variation of applied load on helical bevel gear made of different materials using simulation technique	Materials Today: Proceedings (Scopus)	68	2022	1392-1395
6.	Effects of different loading conditions on BS460B steel reinforcing bar using Multiphysics modelling technique.	Materials Today: Proceedings (Scopus)	68	2022	1387-1391
7.	Experimental Investigation and Comparative Study of Sintering of Microcrystalline Nickel Using Microwave and Conventional Method	Arabian Journal for Science and Engineering; SCI: IF 2.334	46(8)	2021	7757-7771
8.	Selective Laser Melting of Single Track on Ti-6Al-4V Powder: Experimentation and Finite Element Analysis	Arabian Journal for Science and Engineering; SCI: IF 2.334	45(2)	2020	1173-1180
9.	A Study on Welding of Thin Sheet of Ti6-Al-4V Alloy Using Fiber Laser and Its Characterization	Lecture Notes in Mechanical Engineering (Scopus)	Online ISBN 978-981-15-1124-0	2020	271-280
10.	Effects of Micro-EDM Parameters on the Surface Integrity of the Micro-Holes Fabricated on Nickel Sheet	Lecture Notes in Mechanical Engineering (Scopus)	Online ISBN 978-981-15-1124-0	2020	259-270
11.	Optimization of Micro-electro Discharge Drilling Parameters of Ti6Al4V Using Response Surface Methodology and Genetic Algorithm.	In Numerical Optimization in Engineering and Sciences (Scopus)	Online ISBN 978-981-15-3215-3	2020	449-456
12.	Fabrication and characteristic evaluation of direct metal laser sintered SiC particulate reinforced	Journal of Laser Applications SCI; IF 2.103	31(1)	2019	012005

	Ti6Al4V MMC's.				
13.	Micro-electrical discharge machining of difficult-to-machine materials: A review	Journal of Engineering Manufacture SCI; IF 2.610	233(2)	2019	339-370
14.	Effect of process parameters on the Surface Integrity of micro-holes of Ti6Al4V obtained by micro-edm	International Journal of Mechanical and Production Engineering Research and Development (Scopus)	8(6)	2019	721-728
15.	Laser Surface Modification of SAE8620 HVD Material for Transmission Gear	Materials Today: Proceedings (Scopus)	11	2019	813-817
16.	Processing and characterization of laser sintered Hybrid B ₄ C/cBN reinforced Ti-based metal matrix composite	Optics and Lasers in Engineering SCI; IF 4.836	105	2018	159-172
17.	Direct metal laser sintering of TiN reinforced Ti6Al4V alloy-based metal matrix composite: Fabrication and characterization	The International Journal of Advanced Manufacturing Technology SCI; IF 3.226	97(5-8)	2018	2635-2646
18.	Effect of annealing on silver oxide nano-particle generated by electrochemical discharge machining	Materials Today: Proceedings (Scopus)	5(13)	2018	26804-26809
19.	Development of TiN particulates reinforced SS316 based metal matrix composite by direct metal laser sintering technique and its characterization.	Optics & Laser Technology SCI; IF 3.867	46-59	2017	0030-3992
20.	Experimental study of microstructure, mechanical and tribological properties of cBN particulates SS316 alloy based MMCs fabricated by DMLS technique.	Journal of Mechanical Science and Technology SCI; IF 1.734	31(6)	2016	2729-2737
21.	Development of cBN reinforced Ti6Al4V MMCs through laser sintering and process optimization	Materials and Manufacturing Processes SCI; IF 4.616	32(14)	2017	1532-2475
22.	Development of reinforced TiN-SS316 metal matrix composite (MMC) using direct Metal laser	Materials Today: Proceedings (Scopus)	4	2017	9982-9986

	sintering (DMLS) and its characterization				
23.	In Situ Production of Hard Metal Matrix Composite Coating on Engineered Surfaces Using Laser Cladding Technique.	Journal of Materials Engineering and Performance SCI; IF 1.819	26(1)	2016	76-83
24.	Fiber Laser Welding of Thin Nickel Sheets in Air and Water Medium	Arabian Journal for Science and Engineering SCI; IF 2.334	42(5)	2016	1765-1773
25.	Influence of process parameters on the surface integrity of micro-holes of SS304 obtained by micro-EDM.	Journal of the Brazilian Society of Mechanical Sciences and Engineering SCI; IF 2.220	38(7)	2016	2029-2037
26.	A novel application of micro-EDM process for the generation of nickel nanoparticles with different shapes	Materials and Manufacturing Processes SCI; IF 4.616	32(5)	2016	564-572
27.	Synthesis and characterization of CuO nanoparticles using strong base electrolyte through electrochemical discharge process	Bulletin of Materials Science SCI; IF 1.783	39(2)	2016	469-478
28.	Pulse Current Co-deposition of Ni-WS ₂ Nano-composite Film for Solid Lubrication	Materials and Manufacturing Processes SCI; IF 4.616	32(4)	2016	365-372
29.	Synthesis of Silver Metal Nanoparticles Through Electric Arc Discharge Method: A Review	Advanced Science Letters (Scopus)	22(1)	2016	3-7
30.	Analysis of fiber laser cladding of titanium nitride on SS304 substrate	International journal of advanced technology in engineering and science	4(3)	2016	14-20
31.	A New Method for Modeling of Cathode and Anode Erosion in Micro-EDM Process.	International Journal of Applied Engineering Research (Scopus)	10	2016	21115-21119

II) International Conferences:

Sl. No	Title of the paper	Name of the Conference	Place	Year
1.	Optimization of Process Parameters In Laser Bending Of Inconel-625 Metal Sheet	International conference on recent trends in Science Engineering & Management	India International Centre, New Delhi	2016
2.	Fibre laser welding of thin sheet of Ti6Al4V and its characterization	International Conference on Precision, Meso, Micro and Nano Engineering (COPEN 9)	IIT Mumbai	2015
3.	Drilling of micro holes on soda-lime glass through electrochemical discharge machining process	International Conference on Advanced Design and Manufacture (ICAD&M 2014),	NIT Trichy	2014

12. Patents (Filed / Granted):

S. No.	Name of the Inventor	Title of the Invention	Application / Patent No. (As applicable)	Year	Status (Filed /Published /Granted)
1.	Dr. Manowar Hussain, Dr. Pankaj Kumar	Improved Biomedical Implants Using Titanium Alloy Based Metal Matrix Composite	201941012759A	2019	Published
2.	Dr. Pankaj Kumar, Dr. Manowar Hussain,	Method for Manufacturing of Magnetic Nano-Fluids using Micro-EDM Process	202041016827A	2020	Published

13. Conference/ Workshop/Seminar/ Organized:

Sl. No.	Title of Seminar / Conferences / Short – term Courses	Name of Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences /Short – term Courses	No. of Participants

14. Short term/ Symposium/ Workshop/Seminar/ Attended

Sl. No.	Training Name	Name of Institute	Period	Duration
1.	Faculty Development Program on “Engineering Optimization”	NITTTR, Chandigarh	13-07-2020 to 17-07-2020	1 Week
2.	One Week Faculty Development Program on “Materials Processing and Optimization	NITTTR, Chandigarh	06-07-2020to 10-07-2020	1 Week
3.	One Week Faculty Development Program on “Mechanical Manufacturing and Process optimization”	NITTTR, Chandigarh	25-06-2020 to 29-06-2020	1 Week
4	A One Week Faculty Development Program on “Computer Integrated Manufacturing & CNC (CIM/CNC)”	NITTTR, Chandigarh	25-05-2020 to 29-05-2020.	1 Week
5.	One Week Faculty Development Program on "Modeling and simulation using MATLAB	NITTTR, Chandigarh	18-05-2020 to 22-05-2020.	1 Week
6.	Online Certification Course on “NBA Accreditation and Teaching - Learning in Engineering (NATE)”	NPTEL	Jan-Apr 2020.	12 Week
7.	Online Certification Course on “Metal Cutting and Machine Tools”	NPTEL	Feb-Mar 2020	4 Week
8.	Completed 8 online modules of MOOCs in SWAYAM	Swayam	2022-24	12 Week/Module

15. Other Research Activities:

- i. Ongoing Research Project: 01
- ii. Edited Research Book: 01

16. Administrative Position Held :

S. No.	Position Held	From (date/month/year)

17. Award / Recognition Bestowed on Faculty (State / National / International): NA

18. Members of Professional Bodies:

a) Life Member: ISTE; Number: LM- 125691

b) Life Member: Indian Laser Association; Number: LM1292