

Dr. Dhanraj B. Waghmare

dwaghmare@gmail.com, dbwaghmare@dbatu.ac.in

EXPERIENCE

Total – 18 years

- 1] 2.5 yrs – March 2005 to August 2007 as a **lecturer** at Parshvanath College of Engineering, Thane (W), (MS) (Mumbai University approved Regular Lecturer)
- 2] 10.9 yrs – **Assistant Professor**, at **Dr. Babasaheb Ambedkar Technological University**, Lonere (Raigad) (Maharashtra) from 16/08/2007 to 29/05/ 2018.
- 3] 5.2 yrs - **Associate Professor**, at **Dr. Babasaheb Ambedkar Technological University**, Lonere (Raigad) (Maharashtra) from 30th May 2018 till date.

EDUCATIONAL QUALIFICATION

Ph. D. Indian Institute of Technology, Kharagpur, WB (**29/05/2018**)
(Mechanical Engg) **7.5** (Average Grade Point)

M.E. (Mechanical) **67.41%** (Dissertation submitted in **May 2004**), from
Production Engg Govt. College of Engg, Karad (Shivaji University, Kolhapur)

GATE (Mechanical) **70.96** Percentile (2002) conducted by IISc Bangalore

B. E. (Mechanical) **62.67 %** awarded by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (Govt. College of Engg. Aurangabad) in **August 2001**

H. S. C **89.33 %** awarded by Aurangabad Divisional Board, in **June 1997**.
(Rajarshi Shahu College, Latur)

S. S. C. **86.00%** awarded by Aurangabad Divisional Board, in **June 1995**.
(Shri Yougeshwari Nutan Vidyalaya, Ambajogai, Dist – Beed)

PROJECT/DISSERTATION/THESIS WORK

Ph.D. Thesis Parametric Optimization and Weld Zone Characterization of Fiber Laser Welded SS304 and SS316 Sheets of Sub-millimeter Thickness

M. E. An evaluation of Production Performance Benefits of Some
(Dissertation) Indian Industries from JIT Implementation

B. E. (Project) Design and Manufacturing of Noodles Making Machine

PAPERS/BOOKS PUBLISHED

Journals: - 10 Conferences: - 10 Books: - 2

Details of the Papers Published In International/National Journals: - 10

SN	Authors	Title of the paper	Name of the Journal
1.	Dhanraj B. Waghmare, Partha Saha	Parametric optimization for autogenous butt laser welding of sub-millimeter thick SS 316 sheets using central composite design	Optics & Laser Technology Volume 122, February 2020, 105833, Accepted 9 September 2019.
2.	Dhanraj B. Waghmare, Partha Saha	Comparison of Single- and Multiple-Spot Resistance Welding of Sub-millimeter Thick SS304 and SS316 Sheets	Advances in Additive Manufacturing and Joining. Lecture Notes on Multidisciplinary Industrial Engineering. (2020) Springer, Singapore DOI - https://doi.org/10.1007/978-981-32-9433-2_40
3.	Dhanraj B. Waghmare, Sumit Bhatia	Industrial case study of low-pressure die casting of AlSi9Cu1Mg aluminium alloy to reduce casting defects	Reason- A Technical Journal ISSN 2277-1654 Volume XVII • 2019
4.	Dhanraj B. Waghmare, et al.	Automation of PTFE handling system for mould filling operation	Reason- A Technical Journal ISSN 2277-1654 Volume XVII • 2018
5.	Shrikant M. Chougule, D. B. Waghmare	Design & Manufacturing of Components of Modified Bench Vise on Rapid Prototype Machine	International Journal of Application or Innovation in Engineering & Management (IJAI EM), Volume 4, Issue 7, July 2015 ISSN 2319 - 4847
6.	Dhanraj B. Waghmare, Partha Saha	Microstructure, Tensile Behaviour and Weld geometry of Sub-millimeter Thick SS 304 Stainless Steel after Laser Welding, (March 2023)	ICMMM 24 – 26 Mar 2023, VITU, Vellore, Queensland University of Tech, Australia, and others. Under publication for Materials Today: Proceedings (Scopus)
7.	Dhanraj B. Waghmare, Partha Saha	Effect of Percentage Overlap on Mechanical and Microstructural Properties of SS 304 and SS 316 Stainless Steel using Modulated Pulse Mode (March 2023)	ICMMM 24 – 26 Mar 2023, VITU, Vellore, Queensland University of Tech, Australia, and others. Under publication for Materials Today: Proceedings (Scopus)
8.	Dhanraj B. Waghmare, Partha Saha	Laser Welding of Thin Ferrous Sheets with Ferrous and Nonferrous Sheets (Book Chapter in the book – Laser Assisted Machining: Processes and Applications) (April 2023)	Scrivener Publishing, partnering with Wiley Publication, Submitted and under review
9.	Raut, D.N., Waghmare, D.B.	Virtual manufacturing - A tool to evaluate the productivity and affordability of new product (2005, pp. 411–416)	Proceedings of the 12 th National Conference on Machines and Mechanisms, NaCoMM 2005, (Scopus).

10.	D.N. Raut, T. J. Shah, D. B. Waghmare	A framework for evaluation and acquisition of the manufacturing process using AHP (2005)	Global Institute of Flexible Systems Management (GIFT), Publishing, New Delhi, , ISBN No. 81-903397-0-2
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Details of the Papers Published In Conferences: 10

Sr. No.	Name of the conference	Organizing Institute(s)	Duration	Title of the Paper
1.	GCOMM 2004	VIT Vellore & Queensland University of Tech, Australia	8-10 Dec 2004	An Evaluation of Production Performance Benefits of Selected Indian Industries from JIT Implementation
2.	NCSRT 2005	PCOE Thane	18-19 Nov 2005	TPS – A overall guide to implement Just – In – Time manufacturing
3.	NCSRT 2005	PCOE Thane	18-19 Nov 2005	Just – In- Time Manufacturing – A sun rising technology for Indian manufacturers
4.	NCSRT 2005	PCOE Thane	18-19 Nov 2005	Selection of manufacturing technologies by Multi-criterion decision making
5.	ICMPM 2005	BIT Sathyamangalam & North Carolina University, USA	12-14 Dec 2005	A comparative study of JIT implemented Indian and Japanese industries
6.	ICPQR 2005	IIT Delhi and ISPQR	12-15 Dec 2005	Problems and issues in successful implementation of just-in-time manufacturing in India
7.	GMI 2006	Coimbatore Inst of Tech & Uni of Massachusetts-Dartmouth USA	27-29 July 2006	Selection of Manufacturing technology based on current industrial practice using AHP
8.	ICAMTM 2007	PCOE, Thane	18 – 20 Jan 2007	Cutting Values Prediction in Drilling Operation with Neural Networks
9.	ICAMTM 2007	PCOE, Thane	18 – 20 Jan 2007	Rapid Prototyping for Engineering and Medical Applications – A Literature Survey
10.	AIMTDR 2023	IIT BHU, Varanasi	8 – 10 December, 2023	Corrosion Resistance Analysis of Laser Welded Joints of Thin Stainless Steel Sheets, Extended Abstract submitted.

Number of Books published/under publication: 2

Sr. No.	Title of Book	Discipline	Publisher with year	ISBN No.
1	Engineering Graphics and Design (in Marathi language)	Common for First Year B.	Khanna Book Publishing Co. (P)	978-93-5538-022-7

	Published under AICTE NEP 2020	Tech.	Ltd. 2022	
2	Materials Engineering (in Marathi language) To be published under AICTE NEP 2020	Mechanical Engineering – IV Sem	Khanna Book Publishing Co. (P) Ltd. 2023	Book submitted, Under review

ACADEMIC OUTREACH ACTIVITIES

A. Expert Talk/Lecture

Sr.	Title	Venue	Date
1.	Central Composite Design	Veermata Jijabai Technical Institute, Matunga, Mumbai	11/07/2018
2.	Resistance Welding	Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad	27/11/2018
3.	Laser Welding		28/11/2018
4.	Introduction to Central Composite Design	Karmveer Bhaurao Patil College of Engineering, Satara	14/11/2019
5.	Central Composite Design – Case Study of Laser Welding		14/11/2019
6.	Introduction to Design Expert Software		15/11/2019
7.	Practice session on Design Expert Software		15/11/2019
8.	Laser Welding – An Important Unconventional Manufacturing Process for Industry 4.0	Veermata Jijabai Technical Institute, Matunga, Mumbai	30/12/2019
9.	Life Struggle of Dr. Ambedkar, Present Situation and Future Perspective	Dr. Ambedkar College, Mahad	14/04/2022
10.	Role of New Education Policy in Higher Education	D. G. Tatkare Arts & Commerce College, Tala, Raigad	27/04/2022
11.	Dr. Babasaheb Ambedkar – Founding Father of Modern India	Mech Engg. Dept., Dr. Babasaheb Ambedkar Tech. Uni., Lonere, Raigad	06/06/2022
12.	Indian Constitution	BARTI, Mahad Centre	26/11/2022
13.	India – The Mother of Democracy	IoPE, Lonere, Raigad	26/11/2022
14.	Life and works of Mhatma Jyotirao Phule	Doshi Vakil College Goregaon, Tal – Mangaon, Dist - Raigad	11/04/2023

B. Program Chair/General Chair/ Organization of the Conference/Training Program

Sr.	Title of the Conference/STTP	Venue	Duration
1.	International Conference on “Advances in Manufacturing and Technology Management” (ICAMTM 2007)	Parshvanath College of Engineering, Thane (W) (Maharashtra)	18-20 Jan 2007
2.	National Conference on “Sun Rising Technologies” (NCSRT 2005)	Parshvanath College of Engineering, Thane (W)	18-19 Nov 2005
3.	TEQIP – III sponsored one-day Workshop on AUGMENTED REALITY – An INDUSTRY 4.0 Initiative	Dr. Babasaheb Ambedkar Technological University, Lonere	November 7, 2019

4.	AICTE & TEQIP-III sponsored one-week short term training program on Research Methodology – Techniques and Softwares	Karmveer Bhaurao Patil College of Engineering, Satara	November 11-15, 2019
5.	National Multidisciplinary conference (online) on New Education Policy 2020 and labour laws	Online	5 th April, 2021
6.	One week training program on FEAST in association with SVR InfoTech, Pune	Online through Google Meet http://meet.google.com/smp-pmvj-bgo	October 4-8, 2021

C. Reviewer of International Journals/Books

Sr.	Title of the Journal/Book	Publisher
1.	Advances in Additive Manufacturing and Joining, Lecture notes on multidisciplinary industrial engineering	Springer Nature Singapore Pte. Ltd.

D. Technical Program Committee Member of National/International Conferences

Sr.	Name of the Conference	Venue	Committee
1.	International Conference on “Advances in Manufacturing and Technology Management” (ICAMTM 2007)	Parshvanath College of Engineering, Thane (W) (Maharashtra)	1. Chairman of Printing and Publication Committee, 2. Chairman of Review Committee 3. Member of Communication committee
2.	National Conference on “Sun Rising Technologies” (NCSRT 2005)	Parshvanath College of Engineering, Thane (W) (Maharashtra)	Chairman of Review Committee
3.	National Multidisciplinary conference (online) on New Education Policy 2020 and labour laws	Online	Secretary
4.	Transdisciplinary international conference on Integrated sustainability approaches in sciences, technology, commerce & social sciences: Current research & future perspectives (ISASTCSS)	Nagpur	Organizing Committee Member

ADMINISTRATIVE EXPERIENCE

Sr.	Responsibility	Duration
1.	Rector- II, Sahyagiri Hostel	23/02/2018 - till date
2.	Convocation Minute-to-Minute Program Committee Chairman	2012, 2013 & 2014

3.	Central Assessment Process - In-charge	Dec 2010
4.	Departmental Academic Audit Coordinator	2018, 2019, 2020, 2021, 2022
5.	Women Security & Empowerment Committee - Co-convenor	2011 - 2014
6.	Departmental Committee Member for conduct of PhD Entrance Written Test & Interview	2018, 2019
7.	Competitive Exam Club - Faculty Advisor	2019 - till date
8.	Member, NAAC steering Committee, IQAC Cell, Criterion – VII Coordinator.	2019 – till date
9.	University's Minimum wages committee	January 2021
10.	Departmental Syllabus Committee	2019, 2020
11.	University's Anti-raging Committee	2019 – 2021
12.	Member, Committee to resolve issues related to Question Papers	January 2019, October 2022
13.	Member, Expert committee for selection of candidates for Avishkar-2018	January 2019
14.	Member, University's Ambiance Committee	2020 – till date
15.	Member, RGSTC Project Appraisal Committee	2019-2020
16.	Member, TEQIP's Equity Assurance Plan Implementation Committee	2013-2014
17.	University's write-off committee member	

M.Tech SCHOLARS GUIDED

Sr. No.	Students Name	Date of Viva-voce	Joining Date	Thesis Title
1.	Yash Sawant	August 2019	Aug 2017	Finite Element Simulation and Analysis of Laser Welding of Stainless Steel Sheets
2.	Sumit Bhatia	August 2019	Aug 2017	Casting Defects and Remedies for Reducing Scrap in Die Casting Process
3.	Sanket Shambharkar	August 2020	Aug 2018	Numerical modeling and simulation of laser welding of sub-millimeter thick 316 stainless steel
4.	Vivek Patil	August 2021	Aug 2019	Modeling and simulation of laser welded SS 304 sheets by FEAST

PhD SCHOLARS GUIDED

Sr. No.	Students Name	PRN	Joining Date	Thesis Title
1.	Gopal Mudholkar	RS20220110	Nov 2022	Ongoing
2.	Gajanan Bhosale	RS20220101	Nov 2022	Ongoing

STTP / WORKSHOPS /FDPS ATTENDED/PARTICIPATED

Total: One Week – 19; Two Week – 04

Last three years

Sr.	Title	Funding agency	Date	Duration
1.	Nanotechnology opportunities and challenges in engineering materials and manufacturing	AICTE QIP	5-10 March 2018	One week
2.	Advanced computational tools in engineering and technology	DTE	19-23 March 2018	One week
3.	Mechatronics and industrial automation	AICTE	26-30 March 2018	One week
4.	Emerging Application of Solidworks in Engineering R & D	ISTE	17-21 April 2018	One week
5.	Research methodology for engineering and management research	AICTE	9-14 July 2018	One week
6.	Recent Trends in Welding & Joining Technology	TEQIP - III	26 - 30 Nov 2018	One week
7.	Pedagogical and Assessment Techniques for Product Design Engineering	MHRD (PMMMNM)	February 25 - March 6, 2019	Two week
8.	Integrated approach towards Water Processing and Management	TEQIP - III	15-19 October, 2019	One Week
9.	Research Methodology -Techniques and Softwares	AICTE & TEQIP - III	November 11-15, 2019	One Week
10.	Cyber Security	ATAL	6-10 Jan 2020	One Week
11.	Moodle Learning & Management Systems	IIT Bombay	25-30 April 2020	One Week
12.	Digitizing Engineering Graphics	Autodesk	20-24 July 2020	One Week
13.	Interdisciplinary aspects in modelling of manufacturing processes	IIT Bombay & DBATU Lonere	21-29 November 2020	One Week

Experience of organizing events such as workshops, seminars and conferences:

S. N.	Name of workshop/ seminar/ conference	Details
1.	International Conference on “Advances in Manufacturing and Technology Management” (ICAMTM 2007)	Organised by Parshvanath College of Engineering, Thane (W) (Maharashtra); Worked as organizing member for committees like printing of proceedings, review of papers, and other

2.	National Conference on “Sun Rising Technologies” (NCSRT 2005)	Organized by Parshvanath College of Engineering, Thane (W) (Maharashtra), worked as organizing committee member. Co-chair for 2 technical sessions
3.	TEQIP – III sponsored one-day Workshop on AUGMENTED REALITY – An INDUSTRY 4.0 Initiative	Organised at Dr. Babasaheb Ambedkar Technological University, Lonere on November 7, 2019
4.	AICTE & TEQIP-III sponsored one-week short term training program on Research Methodology – Techniques and Softwares	Coordinator of the STTP organised at Karmaveer Bhaurao Patil College of Engineering, Satara (DBATU affiliated college) November 11-15, 2019
5.	National Multidisciplinary conference (online) on New Education Policy 2020 and labour laws	Worked as secretary. Organised online on 5th April, 2021
6.	One week training program on FEAST in association with SVR InfoTech, Pune	Coordinator, Online through Google Meet http://meet.google.com/smp-pmvj-bgo October 4-8, 2021

LIAISON WITH INDUSTRY

- Completed 6 Internships of B Tech students at SVR InfoTech, Pune
- Completed two B. Tech projects with DuFlon Industry, Mahad
- Completed one M. Tech project with Alikon Castalpy, Pune
- Industrial visits to various industries like Posco India, Mangaon, Keepsake Welding Research and Skill Development Centre, Ahmedabad, DuFlon Industries Pvt. Ltd., Ahmedabad, Thermax Pune, etc.

Contribution to Teaching/ Academic Environment/ Institutional/ Department Life

- Taught various subjects to B. Tech like – Engineering Graphics, Industrial Engineering and Management, Metrology and Quality control, Machine Tools, Manufacturing Processes – III, Product Design and Engineering, etc. and to M. Tech like – Advanced Joining Technology, Characterization Techniques.
- Subject Chairman – Engineering Graphics, Advanced Joining Techniques, Processing and Characterization Techniques, Industrial Engineering and Management
- Paper setter and Paper evaluator for various UG, PG and PhD Courses
- Organizing member for various University level cultural events
- B Tech Seminar, B Tech Project, M Tech Project, Technical Project to Community Service (TPCS) guide.
- Delivered expert talks on various topics at the University and nearby colleges.
- Delivered expert talks in various STTPs.

- Motivating students to take higher studies in India and abroad.
- Provided letters of recommendations to numerous students of the University to take admission in foreign universities.
- Guiding SC, ST, NT, OBC, EBC students for scholarship and other issues.
- Participated in various events like Yoga Day, Tree plantation, etc.

University Recognition and Related Work

- Dr. Babasaheb Ambedkar Technological University recognized PhD guide
- Worked on various committees at University level
- Member of Doctoral Committee at VJTI, Mumbai
- Worked as external examiner for M. Tech (Production Engineering) Project evaluation at VJTI, Mumbai
- Developed 3D printing lab as RUSA member (Rs. 50 lac)
- Procurement of ISRO's FEAST software (Rs. 7 lac) for Central Research Facility of the University

RESEARCH PLAN

- To develop fully equipped dedicated **laser facility operated by 5-axis CNC** system that can be used to do research in the area of laser processing of materials.
- To procure and use different **softwares** like simulation softwares e.g. SIMUFACT welding, etc.
- Getting funding from various government agencies like DST, FIST, AICTE, etc.

VISION FOR THE GROWTH OF THE DEPARTMENT & THE UNIVERSITY

- To have industrial projects for students to get hands on training for them
- To develop center of excellence by procurement of 3D printing facility
- To create communication channel between local educational institutes and the University
- To develop competitive examination preparation center for the students

PERSONAL DETAILS

Date of Birth	12 th May 1979
Category	Scheduled Castes
Marital Status	Married
Languages Known	English, Hindi, <u>Marathi</u>
Hobbies	Reading, Traveling, Playing Chess

I certify that all particulars provided by me in this application form are correct and true to the best of my knowledge and belief.

Date:

Place:

DHANRAJ B. WAGHMARE