

Dr. Choudhari Chandrashekhar Murlidhar
Head of Department and Professor

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Address for Correspondence: Department of Mechanical Engineering, Terna Engineering College, Plot-12, Sector-22, Nerul, Navi Mumbai, 400706.



Professional Qualification:

- **Ph.D in Mechanical Engineering, 2015**
V.J.T.I, Mumbai.
- **Master of Engineering (Machine Design), 2003**
V.J.T.I, Mumbai.
- **Bachelor of Mechanical Engineering, 1997**
Ram Meghe College of Engineering Badnera, Amravati University, Maharashtra

About Me:

Dr. Chandrashekhar Choudhari has more than 25 years of professional experience in Mechanical Engineering. He is awarded with Ph. D. degree in January 2015 from V.J.T.I, Mumbai University. He completed his M.E. in Machine Design from V.J.T.I, Mumbai and B.E. in Mechanical Engineering from Amravati University in 1997.

He started his professional career in 1997 with *Fr. C. Rodrigues Institute of Tech, Vashi*. He has also worked as *Professor* in Mechanical Engineering Department of Dwarkadas J. Sanghvi College of Engineering, Vile Parle, Mumbai. Presently, he is working as Professor and Head of Mechanical Engineering at Mechanical Engineering Department, **Terna Engineering College**, Nerul, Navi-Mumbai from 2018.

As a head of the Mechanical Engineering Department, **Terna Engineering College**, Nerul, Navi-Mumbai from 2018, Few major activities carried out by me such as:

1. Strengthening Teaching Learning Process.
2. Motivating students for extra co-curricular and co-curricular activity.
3. Students were motivated to participate in hackathons, various competition.
4. Holistic Development of students.
5. Aligning the staff as per their interest and improving research activity.
6. Developing ownership feel in the faculty minds for the assigned work.
7. Preparation for NBA/NAAC
8. Focus on improving the placement.
9. MOUs
10. Skill Development Program
11. Revenue Generation for Institute etc.

Patents/ Products/ Consultancy:

Patents:

1. Title of the Invention: METHOD AND PROCESS TO IDENTIFY TOOL WEAR THROUGH IMAGE PROCESSING, Application No.202121044380 A, 29/10/2021, INDIA

Consultancy Projects:

1. Worked on the consultancy project offered by Automotive Manufacturers Pvt Ltd, Kurla during June 2017 to May 2018. Project was related to design and development of trailer chassis to comply with Automotive Research Association of India (ARAI) standard.
2. Handled two Consultancy Project: Total Revenue generated for Institute was Rs10,000/- in the year 2006 (Fr CRIT).

Reviewer:

1. Reviewer for International Journal of Heat and Mass Transfer, Elsevier Publications.
2. Reviewer for Journal of Engineering Manufacture, Sage Publications.

Major Subjects:

- Strength of Material
- Finite Element Method
- Machine Design
- Engineering Drawing

Citation Analysis:

449 citations (h-index 10 and i10-index 10) in google scholar

https://scholar.google.com/citations?user=l_swtHwAAAAJ&hl=en&oi=ao

List of Publication:**Journal Publications:**

1. S. V. Dharia, C. M. Choudhari, M. S. Kavre, "From waste to resource: investigating the load carrying capacity of recycled plastic waste", International Journal of Environment and Waste Management. (2025) DOI:10.1504/IJEW.2025.10069177
2. S. V. Dharia, A. J. Khushwah, C. M. Choudhari, M. S. Kavre (2023), 'Optimum source segregation bin for household solid waste and waste plastic recycling', Journal of Material Cycles and Waste Management, 25, 2312-2325 DOI:10.1007/s10163-023-01689-6
3. C. M. Choudhari, Vaishnavi V. Gejji and Ravi Yerigeri, "Extraction of 3D Solid Model of Decaying Tooth from 2D DICOM Images" published in Recent Advances in Industrial Production, Lecture Notes in Mechanical Engineering pp 101-110, 02 November 2021, https://doi.org/10.1007/978-981-16-5281-3_10.
4. C. M. Choudhari, Mr. Prashant K. Ambadekar, "Critical study of tool condition monitoring related to sensor and image processing based system", Presented in 4th International Conference on Production and Industrial Engineering, CPIE-2016, NIT, Jalandhar.
5. C. M. Choudhari, Mr. Prashant K. Ambadekar, "Application of Gray Level Co- occurrence Matrix as a feature extraction technique to monitor wear of cutting tool", IOSR Journal of Engineering (IOSRJEN) ISSN (e): 2250-3021, ISSN (p): 2278-8719.
6. C. M. Choudhari, Mr. Prashant K. Ambadekar, "Application of Gabor Filter for Monitoring Wear of Single Point Cutting Tool", 20/07/2019 Part of the Communications in Computer and Information Science book series (CCIS)ISSN (e): 2250-3021, ISSN (p): 2278-8719.
7. C. M. Choudhari, Mr. Prashant K. Ambadekar, "Measurement of Tungsten Carbide Tool Wear by Tribological Investigations", published in Journal of Bio-and Tribo-Corrosion, Volume : 6, Issue : 2 June

(2020) <https://doi.org/10.1007/s40735-020-00367-6>.

8. C. M. Choudhari, Mr. Prashant K. Ambadekar, "CNN based tool monitoring system to predict life of cutting tool", 09/04/2020 Journal of SN Applied Sciences Volume : 2 Issue: 5 May (2020) <https://doi.org/10.1007/s42452-020-2598-2>.
9. C. M. Choudhari, D. M. Wankhede, B. E. Narkhede, and S. K. Mahajan, "Influence of pouring temperature and external chills on mechanical properties of aluminum silicon alloy castings", Materials Today: Proceedings Journal, Elsevier Publication, 2018.
10. C. M. Choudhari, D. M. Wankhede, B. E. Narkhede, and S. K. Mahajan, "Influence of copper chills and pouring temperature on mechanical properties of LM6 castings", published in Journal of Advances in Materials and Metallurgy, Springer Publication, https://doi.org/10.1007/978-981-13-1780-4_21.
11. C. M. Choudhari, Kanhai Dalal, "Optimization of 40 Feet Trailer Chassis Based On Structural Static Simulation" International Journal of Mechanical and Production Engineering, ISSN: 2320-2092, Volume- 5, Issue-9, pp 110 -115, Sep.-2017.
12. Choudhari C. M., Patil V. D., "Product Development and its Comparative Analysis by SLA, SLS and FDM Rapid Prototyping Processes", International Journal of Physics Conference Series: Materials Science and Engineering, Volume 149, pp 1-8, 2016.
13. Choudhari C. M., B. E. Narkhede, and S. K. Mahajan, "Methoding and Simulation of LM 6 Sand Casting for Defect Minimization with its Experimental Validation", Elsevier Procedia Engineering, Vol. 97, pp 1145-1154, 2014.
14. C M Choudhari, B E Narkhede and S K Mahajan, "Numerical Simulation of Long Cylindrical Shape Sand Casting with its Experimental Validation", Elsevier Proceedings, Vol. 1, pp 243-248, 2014.
15. Choudhari C. M., B. E. Narkhede, and S. K. Mahajan, "Casting Design and Simulation of Cover Plate Using AutoCAST-X Software for Defect Minimization with Experimental Validation", Elsevier Procedia Materials Science, Vol. 6, pp 786-797, 2014.
16. C M Choudhari, B E Narkhede and S K Mahajan, "Modeling and Simulation for Optimum Design and Analysis of Riser in Sand Casting with Experimental Validation", Journal of Applied Mechanics and Materials, Vol.465-466, pp 657-661, 2014. Published by Trans Tech Publications, Switzerland.
17. C M Choudhari, B E Narkhede and S K Mahajan, "Modeling and Simulation with Experimental Validation of Temperature Distribution during Solidification Process in
18. Sand Casting", International Journal of Computer Applications, Vol 78(16) (ISBN: 973- 93-80877-81-0), pp 23-29, 2013.
19. C M Choudhari, B E Narkhede and S K Mahajan, "Defect free casting by using simulation software", Journal of Applied Mechanics and Materials, Vol. 313-314, pp 1130-1134, 2013. Published by Trans Tech Publications, Switzerland.
20. A K Gajbhiye, C M Choudhari, D N Raut, B E Narkhede, B M Bhandarkar, "Minimization of Shrinkage Porosity in A Sand Casting Process by Simulation in AUTOCAT-X Software with Experimental Validation by Destructive testing" at International Journal of Modern Engineering Research, ISSN: 2249-6645, Vol. 4, pp. 18- 27, 2014.
21. A R Narwade, C M Choudhari, B E Narkhede, "Feeder design and analysis by casting simulation software" at International Journal of Informative & Futuristic Research, ISSN: 2347-1697, Vol. 1 no.9, pp 281-291, May 2014.

Conferences and Workshops Publications:

1. Dipesh L. Jain, Dhanraj P. Tambuskar, C. M. Choudhari, " Multi-Objective Optimization model for turning of Duplex stainless Steel (DSS) using Artificial Neural Network (ANN) " presented the paper in 62ND NATIONAL CONVENTION, January 29-30, 2021 organised by Indian Institute of Industrial Engineering (IIIE) (Received 1st Prize).
2. C. M. Choudhari, Mr. Prashant K. Ambadekar, "Critical study of tool condition monitoring related to sensor and image processing based system", Presented in 4th International Conference on Production and Industrial Engineering, CPIE-2016, NIT, Jalandhar.
3. Dhananjay Wankhede, B. E. Narkhede, S.K Mahajan and C. M. Choudhari, "Experimental Investigations of Mechanical Properties and Microstructural Characterization of Aluminum Silicon Alloy Castings", published in Proceedings of International Conference on Intelligent Manufacturing and Automation, 05 November 2018, pp 267-277, DOI:10.1007/978-981-13-2490-1_24.
4. C. M. Choudhari, I. A. Bhisti, M. G. Choudhary, A. H. Mistry, "Vibrational Analysis of Single Point Cutting tool for Different Tool Material and Nose Radius using Design of Experiment" , published in Proceedings of International Conference on Intelligent Manufacturing and Automation, 05 November 2018, pp 35-45, DOI:10.1007/978-981-13- 2490-1_4.
5. Chandrashekhar Choudhari, Jaineel Desai, Shlok Bhavsar and Dharmendra Choudhary, "Crash Simulation of an Automotive Body to Explore Performance of Different Metallic Materials using ANSYS" , published in Proceedings of International Conference on Intelligent Manufacturing and Automation, 05 November 2018, pp.689- 695, DOI: 10.1007/978-981-13-2490-1_64.
6. Shirke, Aniket, Choudhari, Chandrashekhar and Rukhande, Sanjay, "Parametric Optimization of Fused Deposition Modelling (FDM) Process Using PSO Algorithm", International Conference on Advances in Thermal Systems, Materials and Design Engineering (ATSMDE2017) organized by Veermata Jijabai Technological Institute (VJTI), during 21st –22nd December 2017, <http://dx.doi.org/10.2139/ssrn.3101978>.
7. Nirgude, S. K., Choudhari, Chandrashekhar and Kalpande, S. D., "A Review on Pre/Post Treatments Used in Friction Stir Welding", International Conference on Advances in Thermal Systems, Materials and Design Engineering (ATSMDE2017) organized by Veermata Jijabai Technological Institute (VJTI), during 21st –22nd December 2017 <http://dx.doi.org/10.2139/ssrn.3101621>, pp. 503- 509.
8. Prashant K. Ambadekar, Chandrashekhar M. Choudhari, "Critical Study of Tool Condition Monitoring Related to Sensor and Image Processing Based System" 4th International Conference on Production and Industrial Engineering, CPIE-2016 organized by DR B R Ambedkar National Of Technology Jalandhar-144011, during December 19-21, 2016, INDIA.
9. Choudhari C. M., Patil V. D., "Product Development and its Comparative Analysis by SLA and FDM Rapid Prototyping Processes", International Conference on Science and Technology for Sustainable Development (ICSTSD-2016), May 2016.
10. C M Choudhari, B E Narkhede and S K Mahajan, "A hybrid approach for casting process simulation by combining FEM and VEM for defect minimization with experimental validation", 62nd Indian Foundry Congress (IFC 2014), Ahmedabad, during 7th -9th February, 2014, India.
11. C. M. Choudhari, B. E. Narkhede, and S. K. Mahajan, "Optimum design and analysis of riser for sand casting" Industrial Engineering and Engineering Management (IEEM), 2013 IEEE International

Conference held at Bangkok TBD TH, pp. 1151-1155, 2013.

12. D M Wankhede, C M Choudhari, Dr B E Narkhede, "A Critical Study on Casting Defects in Light Metals", International Conference on Industrial Engineering (ICIE-2013), organized by S.V. National Institute of Technology, Surat, during 20th -23rd November 2013, ISBN: 978-93-83083-4, pp 929-934, India.
13. C M Choudhari, B E Narkhede and S K Mahajan, "Finite Element Simulation of Temperature Distribution during Solidification in Cylindrical Sand Casting with Experimental Validation" 4th International and 25th All India Machine Tool Design and Research (AIMTDR 2012), organized by Jadavpur University, Kolkata, during 14th -16th December 2012, Vol 1, pp 1-6, India.
14. C M Choudhari, B E Narkhede and S K Mahajan, "Modeling and Simulation of Solidification in Metal Casting for Defect Minimization" jointly organized by Department of Science and Technology, Govt. of India, New Delhi and Japan Society for Promotion of Science, Tokyo (DST-JSPS) on MANUFACTURING, DESIGN and INNOVATION held at Indian Institute of Technology, Bombay during 3rd - 8th December, 2012, India.
15. C M Choudhari, B E Narkhede and S K Mahajan, "Characterization and Correction of Casting Defects by Using Process Improvement Tool" at International Conference on Recent Advances In Engineering, Technology And Management (SPICON 2012), during 31st May- 2nd June 2012, Mumbai, India.
16. C M Choudhari, V D Patil "Direct Integration of Reverse Engineering and Rapid Prototyping For Product Development" at International Conference on 'Frontier in Mechanical Engineering, (FIME2010) organized by National Institute of Technology, Suratkal, pp 255-260, India.
17. C M Choudhari, B E Narkhede, "An Integrated Approach to Product Development for Rapid Tooling Based on Rapid Prototyping" at 2nd International Conference on Production and Industrial Engineering (CPIE-2010) organized by Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, pp 316-320, India.
18. C M Choudhari, V D Patil, "Design and Development of Vacuum Clamping System" in International Conference on Advances in Machine Design and Industry Automation (ICAMDIA-2007) organized by College of Engineering Pune (COEP) in association with corporate during 10-12 January 2007, pp.137-141, India.
19. N N Deshmukh, C M Choudhari, "Continuous Temperature Monitoring System In Engineering Application Using NI Lab View" in the Global conference on 'Production and Industrial Engineering' (CPIE – 2007) organized by Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab during March 22-24, 2007, pp. 116-120, India.
20. S M Khot, C M Choudhari, Nitesh P Yelve, Jitendra K Sardar, "An Effect of System Parameters on Natural Frequency of Beams by Using Statistical Method" 2nd International Conference on 'Computational Mechanics and Simulation' (ICCMS-06), Indian Institute of Technology, Guwahati, during December 8-10, 2006, Vol. 1, pp 453- 459, India.
21. C M Choudhari, Nitesh P Yelve "A Futuristic Study on Harnessing Wind Energy", International Conference on Wind Energy: Trends and Issues (WETI 2006), NITTTR Bhopal, during January 5-7, 2006, TP II/29-TP II/35, India.

Research and Scholarly Contributions:

- **Ph.D. Research:** Numerical Simulation of Solidification in Metal Casting for Defects Minimization with Experimental Validation.
- **M. E. Research:** Regression model for characterizing viscoelastic material.

Funding Received:

- Received ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Atlanta, United States) Research Project Grant of \$5000 USD for project titled “Application of Nano Fluids in Solar Air Conditioning System, 1999-2000.
- Received ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Atlanta, United States) Research Project Grant of \$5000 USD for project titled “Development of Low Temperature Thermal Energy Storage System Using Vapour Compression Refrigeration System”, 2021-22.
- Received a Minor Research Grant Sanction of Rs.50,000/- for the project titled “Effect Pouring Temperature and External Chill on Mechanical properties of Aluminium Silicon Alloy (LM6) Castings” in the year 2017-18 (Ref No.: APD/237/323 of 2018, 27 March, 2018).
- Received a Minor Research Grant Sanction of Rs.30,000/- for the project titled “Simulation and Experimental Study of minimization of shrinkage defect in casting” in the year 2014-15 (Ref No.: APD/237/351 of 2014, 13 October, 2014).

Software Tools:

1. ANSYS,
2. Creo

Professional Association:

- Life Member, Indian Society for Technical Education (ISTE) (LM 46481).
- Life Member, Indian Institution of Industrial Engineering (IIIE) (LM 9391).

Experience:

- Worked as Full time Professor in Mechanical Engineering Department of Dwarkadas J. Sanghvi College of Engineering, Vile Parle, Mumbai since March 2017 to June 2018. TASS (CT) / ICD/2017-18/14490 dated 1 st June 2018.
- Worked as Full time Associate Professor in Mechanical Engineering Department of Fr. C. Rodrigues Institute of Technology, Vashi since July 2016 to March 2017. TASS (CT) / ICD/2016-17/17795 dated 24th January 2017.
- Worked as Full time Assistant Professor in Mechanical Engineering Department of Fr. C. Rodrigues Institute of Technology, Vashi since January 2004 to July 2016. CONCOL /SA /346 of 2012 dated 12th March 2012.
- Worked as Full time Lecturer in Mechanical Engineering Department of Fr. C. Rodrigues Institute of Technology, Vashi from February 1998 to December 2003. CONCOL /SA /55 of 2008 dated 10th January 2008.
- Worked as Vendor Development Engineer, in Motilal Omprakash Works from June 1997 to December

1997.

Responsibilities Handled:

- Member of Advisory Board for the EQUINOX-2022: 7th INTERNATIONAL CONFERENCE ON ENGINEERING RESEARCH AND INNOVATIONS (ICERI- 2022), 22- 23, September 2022 Organized by Terna Engineering College, Nerul, Navi Mumbai.
- Worked as Organizing Committee Member for 5th INTERNATIONAL CONFERENCE ON RESEARCH & INNOVATION (EQUINOX 2020), 19 -20, March 2020 Organized by Terna Engineering College, Nerul, Navi Mumbai.
- Worked as Co-conveners for the International Conference on 4th INTERNATIONAL CONFERENCE ON ENGINEERING CONFLUENCE- EQUINOX 2018, 26 -28 September 2018 Organized by Terna Engineering College, Nerul, Navi Mumbai.
- Worked as Organizing Committee Member for the International Conference on Intelligent Manufacturing and Automation (ICIMA), 20th -21st July 2018 Organized by Dwarkadas J. Sanghvi College of Engineering, Vile Parle, Mumbai.
- Worked as ME Coordinator in Mechanical Engineering for two years.
- Instrumental in developing the PG Lab, Classroom and conducting ME admissions.
- Worked as Chief Conductor for College/University Examination many times.
- Mumbai University approved Examiner, Moderator and Paper Setter for the Under- Graduate subjects and Post-Graduate subjects.
- Part of Syllabus Setting Committee at the Mumbai University Level for 'Finite Element Analysis' and 'Engineering Drawing'.
- DAB member for SIES Graduate School of Technology, Nerul, Navi Mumbai.
- Worked as the Incharge for Intercollegiate TechFEST 'Eta Max CRITERIA' in 2006, 2007, 2009.
- Worked as Overall Sports Incharge for consecutive five years from 1999-2004.
- Worked as the Timetable Coordinator for five times.
- Worked as Secretary and Treasurer for Indian Society for Technical Education (2002- 2014).
- Worked as Organizing Committee Member for Second National Conference on Nascent Technology in Engineering held in February 2010 at the Institute.
- Part of the Organizing team as a key member for ICNTE 2015.
- Handled two Consultancy Projects: Total Revenue generated for institute was Rs. 10,000/- in the year 2006.
- Presently working as NBA Coordinator in Mechanical Engineering.
- Approved Ph. D. Guide in Mumbai University.
- Currently one PhD students have registered under my guidance.
- Worked as Lab Incharge for CAD/CAM lab in the Mechanical Engineering Department.
- Guided 32 projects at undergraduate and 10 projects at post graduate level.
- Worked as MESA coordinator in Mechanical Engineering Department for two years.

Talks/Guest Lectures Delivered:

1. Delivered an expert lecture on "Optimization of Fused Deposition Modeling (FDM) Process Parameters for Tensile Strength Improvement" organized by K. J. Somaiya College of Engineering (KJSCE), Vidyavihar, Mumbai, Maharashtra 400077, 19/03/2018.
2. Delivered an expert lecture on "Modelling and Simulation of sand casting process" during Faculty Development Programme on Machine Design and manufacturing Science and Technology approved

by Dr A P J Abdul Kalam Technical University, UP, Lucknow organized by PSIT Kanpur during June 19-24,2017.(Two Days).

3. Delivered an expert lecture on “CO-PO Mapping” during STTP on **Accreditation Process** organized by Agnel Polytechnic, Vashi on 18/03/2016.
4. Delivered an expert lecture on “Application of FEM in Sand Casting Process” organized by SIES Graduate School of Technology, Nerul on 20/03/2017.
5. Delivered an expert lecture on “Modelling and Simulation of sand casting process” during ISTE approved STTP on Recent Trends in Manufacturing organized by Agnel Polytechnic, Vashi on 18/03/2016.
6. Delivered an expert lecture on “Introduction to FEM and its applications” during QIP Sponsored Faculty Development Program on “Foundry Technology” at V.J.T.I, Mumbai on 6/1/2015.
7. Delivered an expert lecture on “Numerical simulation of Metal Casting using AutoCAST-X” during QIP Sponsored Faculty Development Program on “Foundry Technology” at V.J.T.I, Mumbai on 25/12/2014.
8. Delivered an expert lecture on “Numerical simulation of solidification in metal casting for defects minimization” during QIP Sponsored Faculty Development Program on “Foundry Technology” at V.J.T.I, Mumbai on 22/12/2014.
9. Delivered an expert lecture on “Design of Experiments” during TEQIP Sponsored Finishing School at V.J.T.I, Mumbai on 15/02/2014.
10. Delivered an expert lecture on “Investigation of System Parameter on Natural Frequency of Vibration: Taguchi Technique” in 2009 at Yadavrao Tasgaonkar Institute of Engineering & Technology, Karjat.
11. Delivered an expert lecture on “Product Design and Development” in 2008 at DBIT, Mumbai.
12. Delivered an expert lecture on “Application of Pro/e in Product Design” in 2004 at FCRIT, Vashi.

Session Chair/Judge:

1. Judged the Inter collegiate MECH-A-THON, held during 11-12 th March 25, 2023 Organized by Fr. Conceicao Rodrigues College of Engineering, Bandra..
2. Session Chair for 64th National Convention on “India’s Quest for Becoming \$5 Trillion Economy- Role of Industrial Engineer”, 16th – 17th December, 2023 Organized by Pune Chapter of Indian Institution of Industrial Engineering.
3. Session Chair for Conference on Technology of Future Cities, 8th – 9th January, 2019 Organized by Pillai College of Engineering, Panvel.
4. Session Chair for 62th National Convention during January 29-30, 2021 organized by Indian Institute of Industrial Engineering (IIIE).
5. Session Chair for Conference on Technology of Future Cities, 8th – 9th January, 2019 Organized by Pillai College of Engineering, Panvel.
6. Judged the Inter Collegiate Technical Paper Presentation Competition, held in 2010, 2011, 2015 and 2016 at Agnel Polytechnic, Vashi.

Areas of Interest:

1. Finite Element Analysis,
2. Casting Modeling and Analysis
3. Rapid Prototyping and Tooling

4. Design of Experiment (Taguchi technique)
5. Machine Design, Product design and development

Declaration

I hereby declare that the foregoing information are correct and complete to the best of my knowledge.

Faculty Name: **Dr. Choudhari Chandrashekhar Murlidhar**

Place: Navi Mumbai