Curriculum Vitae

Name: Dr. Chetan Digamber Kuthe

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Date of Birth: 10th September, 1987

Academic Credentials

Class/ Degree	Specialization	Institution	University	Year	%/CGPA	Class
Ph.D.	Mechanical Engineering	VNIT, Nagpur	VNIT, Nagpur	2016	---	---
M. Tech.	CAD/CAM	YCCE, Nagpur	RTMNU, Nagpur	2011	75.5%	*Distinction*
B.E.	Mechanical Engineering	ACET, Nagpur	RTMNU, Nagpur	2009	74.4%	*Distinction*

M. Tech. Project: Fatigue Failure Analysis of Compressor Blade of Jet Engine at HAL Engine Division, Sunabeda, Orissa.

Ph. D. Research: Estimation of Precise Characteristics of Human Skeletal Muscle

Key Research Areas:

- Finite Element Method
- Machine Design
- Bio-mechanics
- Strength of Materials
- Stress Analysis

Experience

Sr. No.	Organization	Post	From To	No. of Years
1	G. S. Mandal's Maharashtra Institute of Technology, Aurangabad	Assistant Professor	17th Feb., 2016 To Till date	4.5 years

List of Courses Taught/Teaching at UG level:

- Strength of Materials
- Design of Machine Elements-I
- Design of Machine Elements-II
- Theory of Machine
- Advanced Solid Mechanics
- Finite Element Analysis

List of Courses Taught/Teaching at PG level:

- Machine Stress Analysis
- Finite Element Method

Additional Assignments/Duties

Maharashtra Institute of Technology, Aurangabad (16th Feb., 2016 to Till date)

- Working as a Departmental NBA coordinator
- Working as a Departmental PG coordinator
- Working as a Design Module coordinator of the department.
- Working as a SPOC for Ready Engineer Program in association with TTL, Pune.

Membership of Professional Bodies

- Member of International Association of Engineers

Research Projects/Projects Guided

PG Projects Guided:

- Mr. Anant Bade (2019): "Design & Development of Needle Filling Machine for Needle Roller Bearing"
- Mr. Yuvraj Narwade (2019): "Design, Development and Performance Analysis of Tube Parting Machine"

- Mr. Kedar Panchal (2018): "Enhancement of Wear Resistance of D2 Steel Slitter using Deep Cryogenic Treatment"

Computer/Software Proficiency

- Creo
- ANSYS APDL
- ANSYS Workbench
- Catia V5
- MATLAB
- Opensim Bio-mechanical simulator
- Mimics Biomechanics Suite

Seminar/Workshop/ Industrial Training/ STTP//FDP/CEP/Conference Attended

- Institute representative of **VNIT** in **Indian Science Congress, Mumbai, 2015.**
- Participation in 2 days workshop on **statistics** at **NIVEDI, Bangalore, 2015.**
- Participation in one week training program on **Non Destructive Testing at VNIT, 2014.**

Seminar/Workshop/ Industrial Training/ STTP//FDP/CEP/Conference organized

- Course Coordinator of six days STTP on Finite Element Method & ANSYS software at Maharashtra Institute of Technology, Aurangabad on Saturdays & Sundays from 25th March to 9th April 2017.
- Coordinator of One Day Workshop on Opportunities of Higher Education and Research in Engineering at Maharashtra Institute of Technology, Aurangabad, 22nd July, 2020.

Invited talks delivered

- Expert Speaker for six days STTP on Finite Element Method & ANSYS software at Maharashtra Institute of Technology, Aurangabad on Saturdays & Sundays from 25th March to 9th April 2017.
- Delivered one day training on Finite Element Analysis and Software Training at YCCE, Nagpur, Feb., 2016.

Intellectual Property Rights

- Technique to quantify recovery post surgery/trauma/treatment. Application No. 201621017236

List of Research Publications

Papers in International Journal

Papers in SCI/Scopus Journals

- Chetan D. Kuthe, R.V. Uddanwadiker and Alankar Ramteke. Experimental Evaluation of Fiber Orientation Based Material Properties of Skeletal Muscle in Tension. *Journal of Molecular & Cellular Biomechanics (Tech Science)*, Vol. 11, No. 2, pp. 113-128, 2014.

- Chetan D. Kuthe, R.V. Uddanwadiker, P.M.Padole and Alankar Ramteke. Mathematical model for skeletal muscle to simulate the concentric and eccentric contraction. *Journal of Molecular & Cellular Biomechanics (Tech Science)*, Vol. 12, No. 1, pp. 1-16, 2015.
- Chetan D. Kuthe and R.V. Uddanwadiker. Investigation of Effect of Fiber Orientation on Mechanical Behaviour of Skeletal Muscle. *Journal of applied biomaterials and functional materials (SAGE)*, Vol 14, No. 2, pp. E154-e162, 2016.
- Chetan D. Kuthe and R.V. Uddanwadiker. Assessment and Quantification of Level of Muscle Fatigue during Static Contraction Using Surface Electromyography. *Journal of Biomedical Research*, Vol 28 (2), pp. 1-9, 2017.
- Chetan D. Kuthe, R.V. Uddanwadiker and Alankar Ramteke. Surface Electromyography Based Method for Computing Muscle Strength and Fatigue of Biceps Brachia Muscle and Its Clinical Validation. Journal of Informatics in Medicine Unlocked (Elsevier), Vol 12, pp. 34-43, 2018.

Papers in National Journal

- Chetan D. Kuthe and R.V. Uddanwadiker. Review of Methods used to Investigate Mechanical properties of skeletal muscle. *International Journal of Engineering Research- Online*, Vol. 4(2), pp. 385-402, 2016.

Books/ Book Chapter

- Chetan D. Kuthe, S. A. Shaikh, Ashok Keche. Study of cyclic oxidation and hot corrosion of 310 SS under the environmental impurities of Na2 SO4 +V2 O5 at different temperatures. IOP Conference Series: Materials Science and Engineering, 377, 012066, 2018.

Papers in International Conference Proceedings

- Chetan D. Kuthe, R.V. Uddanwadiker. Anisotropic Properties of skeletal muscle: In vitro. *International Conference on Computational & Experimental Engineering and Sciences*, Changwon, Korea, June 12-17, 2014.
- Chetan D. Kuthe and R.V. Uddanwadiker. Mathematical model for skeletal muscle to simulate the concentric and eccentric contraction *International Conference on Computational & Experimental Engineering and Sciences*, Seattle, USA, May 24 - 28, 2013

Papers in National Conference Proceedings

- Chetan D. Kuthe and R.V. Uddanwadiker. Estimation of precise characteristics of skeletal muscle under various loading. *4th National Symposium for Material Research Scholars*, IIT Bombay, India, May 4-5, 2012.
- Chetan D. Kuthe and Kedar Panchal. A Review on Cryogenic Treatment of Ferrous Metals. *2nd International Conference on Materials, Manufacturing and Design Engineering*, Aurangabad, 2017
- Chetan D. Kuthe, R.V. Uddanwadiker and Alankar Ramteke. Non Invasive Method to Monitor the Recovery of Strength of Rectus Femoris Muscle Post Knee Replacement

Surgery. *National Conference on Digital Dentistry: CAD, CAM and CAE,* VNIT, Nagpur, August 10-11, 2018

- Chetan D. Kuthe and Anant Bade. Effect of Deep Cryogenic Treatment on Biomedical Implant: A Review. *National Conference on Digital Dentistry: CAD, CAM and CAE,* VNIT, Nagpur, August 10-11, 2018
- Chetan D. Kuthe, Hrudaya Joshi and Aditi Deotkar. A Review of Osseo-integration of Dental Implant. *National Conference on Digital Dentistry: CAD, CAM and CAE,* VNIT, Nagpur, August 10-11, 2018
- Chetan D. Kuthe, Yuvraj K. Narwade and Ashok J. Keche. Design, Development and Performance Analysis of Tube Parting Machine. *National Conference on Industrial Engineering & Technology Management,* National Institute of Industrial Engineering, Vihar Lake, Mumbai, Nov 30-Dec 1, 2018.
- Chetan D. Kuthe and Anant Bade. Design & Development of Needle Filling Machine. *6th International Conference on Production & Industrial Engineering*, NIT, Jalandhar, Punjab, June 8-10, 2019.

Awards, Achievements and Recognition

- Reviewer of Science Citation Indexed (SCI) International Journals
  Medical & Biological Engineering, Springer Publication
  Journal of Applied Physiology, American Physiological Society
- TEQIP grant for international travel to South Korea.

Date: 12-08-2020

Place: Aurangabad