Faculty Resume

1. Name : Dr. Vinod. B. Tungikar
2. Date of birth : 01-02-1961
3. Designation : Professor, Prod. Engineering and Dean (Procurement)
4. Degrees obtained :

University	Degree	Year	Field of Specialization
Marathwada University, Aurangabad	B.E.	June, 1982	Mechanical Engineering
I.I.T. Kharagpur	M.Tech.	Feb, 1992	Machine Design
S.R.T.M.U. Nanded	Ph.D.	May,2003	Thermo-elastic analysis of composite plates

5. Other related experience – research, industrial etc.
   Industry: 4 years, teaching: UG- 31 years, PG- 22 Years
   Head of the department during 2014 to 2017

6. Sponsored Research activities:

Year	Organization (Scheme)	Project Title	Amount received
2001-2002	A.I.C.T.E. (R & DP)	Dynamic Analysis of Laminated plate	Rs. 7,50,000/-
2010-2012	A.I.C.T.E. (RPS)	Non-linear analysis of composite plates and experimentation	Rs. 6,00,000/-
2013-14	TEQIP-II (In collaboration with ICT, Mumbai)	Design and fabrication of mobile blancher for turmeric processing using steam generated by solar system	Rs. 12,50,000/-
2016-17	ICT Mumbai	Solar water purification plant	Rs. 5,50,000/-

7. Research paper Publications: Journals: 23, Conferences: 12,
8. Number of Patents: Filed five patents (Available on line)
    - Application no. 842/MUM/2014, dated 13/3/2014
    - Application no. 265137, dated 26/8/2014
    - Application no. 2025/MUM/2014, dated 24/6/2014
    - Application no. 2730/MUM/2014 A, dated 12/9/2014
    - Application no. 201721022352 dated 27/6/2017

9. Fellowship of Academic bodies and Professional Societies: QIP fellowship for M. Tech., Fellow of Institution of Engineers (India)
10. Membership of Scientific and professional Societies:
    - Life Member ISTE (LM 5528),
    - Fellow of Institution of Engineer (India), F1140112,
    - Member of IET (1100329832)

11. Honors and Awards: Received certificate of merit from the Institution of Engineers (India) for four papers, published in the journal of the institution in 2003 and 2004.
12. No. of M.Tech. Dissertation Guided: 65
13. No. of Ph.D. Guided: 07 (ongoing) , Number of Ph.D. completed: 07
14. Areas of research: Advanced materials, FEA of composites, Metal matrix composites, Solar energy

15. List of conferences, Short-term Courses etc. organized.

    - Organized one week short term programme, approved by ISTE, on "Applications of finite element methods in mechanical engineering" for engineering college teachers during June 5-10, 2000. Thirty two delegates participated in the course.
    - Organized one week FDP, sponsored by TEQIP-II, on "FEA and CFD for engineers" for engineering college teachers during March, 18-22, 2013. Forty six delegates participated in the course.
    - Organized two days TEQIP-II sponsored International Conference on "Advanced & Agile Manufacturing and Agile Software Development" during 6 -7 October, 2016
    - Organized one week FDP, sponsored by TEQIP-II, on "R & D in solar and wind energy" for engineering college teachers during January, 5-10, 2017. Fifty seven delegates participated in the course.

Appendix: List of Publications

International Journals

1. **V. B. Tungikar** and K.M. Rao, "Three dimensional exact solution of thermal stresses in rectangular composite laminate", Composite Structures, Vol. 27, No. 4, 1994, pp. 419-30.
2. **V. B. Tungikar** and K.M. Rao, "Three-dimensional exact solution of heat conduction in rectangular composite laminate", Modeling, measurement and Control", Vol. 59, No.1, 1995, pp. 1-16.
3. **S.K. Basu, V.B. Tungikar and S.R. Kajale**, " Free vibration analysis of laminated composite plate by FEA using nonconforming elements", Int. Jou. Of Manufacturing Technology and Research, Vol. 1, 2005.
4. **V.B. Tungikar and S.S. Choudhary, "**A simple higher order theory for dynamic analysis of composite plates", Journal of Mech. Engg., 2010, vol. 61, pp. 1-13
5. **V.B. Tungikar and S.S. Choudhary**, "A simple finite element for non-linear analysis of composite plates", Int. jou. Of Engg. Science and Technology, 2011, vol.3, No.6, pp 4897-4907.
6. **V.B. Tungikar and P.R. Baviskar,** "Analysis of crack in shaft of blower using FEA and experimental technique", IJRAS, 2011, Vol.8, No.1, pp 30-36
7. **V.B. Tungikar , B.M. Dabade and M.G. Harkare,** "Design and thermo-structural analysis of a mobile blancher for turmeric processing", Int. jou. Of Mech. Engg. Research and Development", 2011, vol.1, No.2, pp 24-32.
8. **V. B. Tungikar, R. D. Palhade, G. M. Dhole and S. M. Kherde**, "Simulation of Structural, Thermal and Electrical Load for High Voltage Ceramic Cap and Pin Disc Insulator Assembly", International Journal of Manufacturing, Materials, and Mechanical Engineering, Volume 3, 2013, pp 66-79
9. **Tungikar V.B , Gawali S.V**. , "Improvement in Tribological Properties by Improving Geometry of Reinforcement Particles", *International Journal of Engineering Science and Technology, Engineering, Journals Publications Singapur, 2011,3(12),* pp. 8289-8297.
10. **Tungikar V.B., Gawali S.V.** , "Drag Force Reduction Technique for Abrasive Resisting Materials", *International Review of Mechanical Engineering, Praise Worthy Prize Italy*,2012,6 (1), pp.17-21.
11. **V. B. Tungikar, R. D. Palhade, G. M. Dhole and S. M. Kherde, "**Transient Thermal Conduction Analysis of High Voltage Cap and Pin Type Ceramic Disc Insulator Assembly", International Journal of Advanced Science and Technology, Vol. 56, July 2013, pp 73-87.
12. **V.B. Tungikar and P.R. Baviskar, "**Multiple crack assessment using natural frequency measurement and prediction of crack properties by artificial neural

network", International Journal of Advanced Science and Technology, Vol. 54, May 2013, pp. 23-38

13. **Uday V. Aswalekar, Vinod B. Tungikar** "Assessment of Ergonomic Environment and Risk Factors for Musculoskeletal Disorders Among Welders in Micro Small and Medium Sized Enterprises", Industrial Engineering Journal, Vol. X & Issue No. 5 May 2017, pp. 2.-26.
14. **Deepak Sonwane, Vinod Tungikar, "**Theoretical and Experimental analysis of unglazed serpentine tube flat plate collector for effluent evaporation" Int. J. Renewable Energy Technology, Vol. 10, Nos. 1/2, 2019, pp 68-82

International Conferences

1. **V. B. Tungikar**, M.M. Pawade, S.R. Kajale, "Finite element modeling of temperature in rectangular composite laminate", Proceedings of Int. Conf. On IFAMS 2000, Coimbatore, Jan. 2000, pp. 413-20.
2. **V. B. Tungikar**, R.R. Bhanose, K. Narasimhan and V.S. Raja, "Prediction and validation of potential distribution in a galvanic cell", Proceedings of Int. symposium on materials ageing and life management, Kalpakkam, Oct. 2000, pp. 925-30.
3. **V. B. Tungikar** and K.M. Rao, "Analysis of finite, rectangular composite laminate under combined loading", Proceedings of Int. Conf. On Signals, data and system, Hyderabad, 1994, pp. 3-16.
4. **V.B. Tungikar, J.P. Hothi and S.B. Sharma, "**Finite element formulation for assessing contribution of non-linear strain terms on the analysis of laminated composite plates", Proceedings of the 22nd AIMTDR conference at I.I.T. Roorkee, December 21-23, 2006, pp 253-258.
5. **D.C.Sonawane, V.B.Tungikar, V.M.Nandedkar & L.M.Waghmare.** "Experimental study of corrugated flat plate collector (CFPC) for waste water evaporation", Proceeding of the International Conference on Advanced Agile Manufacturing Systems- 2015 KNIT, Sultanpur, pp 503-508
6. **A.B.Londhe, V.B.Tungikar, V.M.Nandedkar & L.M.Waghmare.** "some studies on parameters affecting efficiency of solar PV panel", Proceeding of the International Conference on Advanced Agile Manufacturing Systems- 2015 KNIT, Sultanpur, pp 499-502.
7. **P.B.Phule, G.M.Kakandikar, V.N.Nandedkar**, **V.B.Tungikar, & L.M.Waghmare.** "Comparative study of Die Steel and Al-Alloy by using EDM" Proceeding of the International Conference on Advanced Agile Manufacturing Systems- 2015 KNIT, Sultanpur, pp 212-216.

National Journals

1. **V. B. Tungikar,** G.D. Rathod, S.R. Kajale and S.K. Basu, "Modeling a time dependent heat conduction problem in layered composites", Jou. of Institution of Engineers , vol. 83, 2002, pp 1-6.
2. **V. B. Tungikar**, S.K. Basu, S.R. Kajale and M.D. Rao, "Dynamic response of laminated composite plate using first order shear deformation theory", jou.of Institution of Engineers (India), vol. 84, 2003, pp 45-48.
3. **V. B. Tungikar**, S.K. Basu, S.R. Kajale and G.D. Rathod "Finite element modeling of transient thermal stresses in layered composites", jou.of Institution of Engineers (India), vol. 84, 2004, pp 82-84.
4. **V. B. Tungikar**, R.D. Chaudhari, S.K. Basu, and S.R. Kajale , "Use of a simple higher order theory for dynamic analysis of composite plates", jou. of Institution of Engineers (India), vol. 84, 2004, pp 85-89
5. **V. B. Tungikar** and Khadse P.W., "Use of a zigzag theory in finite element formulation for analysis of composite plates", Journal of Institution of Engineers (India), Vol. 87, Aerospace Engg. Division , pp 24-28, May 2006.
6. **V.B. Tungikar, R D Palhade and G.M. Dhole**, "Applications of different environments in grinding of Titanium alloys (Ti-6Al-4V): Investigations on precision brazed type mono layered cubic boron nitride (CBN) grinding wheel", Journal of Institution of Engineers (India), Vol. 90, Production Engg. Division, pp 8-13, September 2009.
7. **V.B. Tungikar and S.S. Chaudhari**, "Development of a finite element for thermo-elastic analysis of composite plates using zig-zag theory", Journal of Institution of Engineers (India), Vol. 90, Production Engg. Division, pp 24-29, September 2009.
8. **V.B. Tungikar and P.R. Baviskar**, "Experimental investigation on crack detection using modal analysis and prediction of properties for multiple cracks by neural network", Journal of the Institution of India, series C, Vol 94, No 4, Dec 2013, pp 299-306

National Conferences

1. **V. B. Tungikar**, R.R. Bhanose etal., "Modeling of a galvanic corrosion system", Proceedings of Int. Conf. On corrosion control, New Delhi, Dec. 99, Vol. 1, pp. 42-51.
2. **V. B. Tungikar**, S.M. Salodkar, "Thermoelastic deformation analysis of sandwich composite laminate by finite element method", Proceedings of national conference on Advanced trends in Mech. Engg. Research and Dev. , Anantpur, June 2000.

3. **V. B. Tungikar**, S.K. Basu, S.R. Kajale and G.D. Rathod, " Finite element modeling of transient thermal stresses in layered composites", Proceedings of 16th national convention of production engineers, Jan. 2002, pp. 260-265.
4. **V. B. Tungikar,** S.R. Kajale and S.K. Basu., "Free vibration analysis of laminated composite plate by finite element technique using non conforming elements", 20th AIMTDR conference Ranchi, December 13-15, 2002, pp 145-151.
5. **V.B. Tungikar** and S.K. Basu, "Finite element analysis of Laminated composite structures for transient thermo-elastic response", Proceedings of the 21st AIMTDR conference at Vellore, December 20-22, 2004, pp 791-797.

Lectures delivered outside Institute: Details of expert lectures delivered at various institutes are as follows.

- Delivered an expert lecture on "Finite element analysis; Procedure and its applications", at Anuradha Engineering College Chikhali in the STTP, "Computer applications and Modern techniques in manufacturing processes" on 31/03/2003.
- Delivered guest lecture on "Advances in manufacturing" at Amrutvahini College of Engineering, Sangamner on 29/09/2003.
- Delivered key note address on 'Engineering Design: Overview and recent trends" in the National conference on "Machine Design" at Amrutvahini College of Engineering, Sangamner on 28/02/2004. Also chaired on technical session in the conference.
- Delivered expert lecture on "FEM applications for dynamic analysis of laminated composite plates" in the STTP on "Finite element analysis and its applications" on 07/12/2004 at K.D.K. College of Engineering Nagpur.
- Delivered expert lecture in one day work shop on CAD/CAM at COE Baramati on 13/3/2008. Topic: FEM and applications
- Delivered expert lecture on FEA in the content updating programme of CAD/CAM and Industrial Robotics at Gramin Polytechnic, Nanded on 15/01/2009.
- Delivered expert lecture on FEA of composite laminated plates at COE Pusad on 24 June 14.
- Delivered expert lecture on "Manufacturing and analysis of composites", in the TEQIP-II sponsored one week STTP on "Modern Manufacturing Techniques" at SGGSIE&T, Nanded during 5-9 March 2014.
- Delivered expert lecture in three day work shop on, "Computer aided product design and development", held at Govt. College of Engineering,

Aurangabad on 14/10/2015. Topic: Finite element method for product design.

- Delivered expert lecture on "Composite material and characterization" at Cummins college of engineering for women Pune on 15/12/2018.
- Delivered expert lecture on "Advanced material and manufacturing" during one week STTP (AICTE-QIP Sponsored) at Govt. college of engineering Amravati on 22/02/2019.

List of candidates completed Ph.D.:06

Sr.No.	Name of candidate	Topic of research	Month & Year of completion of PhD
1	Mr Harkare M.G.	Thermo-structural analysis, design and fabrication of mobile blancher for turmeric processing plant	August, 2012 (Joint guidance with Prof. B.M. Dabade)
2	Mr. Choudhary S.S.	Analysis of laminated plates subjected to thermo-structural loads using zig-zag theories	September, 2013
3	Mr. Gawali Shivaji S	Particle segregation and characterization of metal matrix composites	05 April 2014
4	Mr P R Baviskar	Study and failure analysis of rotor shaft in industrial fan using vibration technique	14 Feb 2015
5	Mr R D Palhade	Finite element simulation of cap and pin type ceramic disc insulator assembly under structural-thermal and electrical loads	13 June 2015
6	Mr. Uday V. Aswalekar	Studies on Safety Management and Ergonomics : A System Approach	22 June 2018
7	Mr. D.C.Sonawane	Use of Solar Energy for Effluent Treatment in Process Industry	Thesis submitted on 07/02/2019