

Resume

Name: Dr. Vikas G. Sargade

Designation: Professor

Contact Details: Department of Mechanical Engineering
Dr. Babasaheb Ambedkar Technological University
Lonere - Raigad, Pin: 402 103 Maharashtra
E-mail: vgsargade@dbatu.ac.in
vikassargade174@gmail.com
Mobile No.: 09730341788, 8830784381

Date of Birth: July 7, 1974

Educational Qualifications:

University/Board	Qualification	Year	Field of Specialization
Pune Board	SSC	1989	--
B.T.E. Bombay	Diploma	1992	Mechanical Engineering
Dr. BATU, Lonere	B.Tech.	1996	Mechanical Engineering
IIT Madras	M.Tech.	1999	Mechanical Engineering (with specialization in Manufacturing Engineering)
IIT Kharagpur	Ph.D	2008	Mechanical Engineering

Employment Record (starting from the present position):

University	Designation	Period
Dr. BATU, Lonere	Professor	04/07/2013 - till date
Dr. BATU, Lonere	Associate Professor	21/05/2006 to 03/07/2013
Dr. BATU, Lonere	Assistant Professor	22/05/2003 to 21/05/2006
Dr. BATU, Lonere	Lecturer	1/2/1999 to 21/05/2003

Membership of Scientific and Professional Societies:

Life Member, Indian Society for Technical Education

List of Short-term Courses participated:

1. Two-month Summer Programme on Advanced Manufacturing, IIT Kharagpur, May 2001 - July 2001.
2. Opportunities and Challenges in High Precision Manufacturing: Vision 2020, Dr. BATU, Lonere, Nov. 18 - 30, 2002.
3. Two-week STTP on “Creep, Fatigue, and Fracture: State-of-the-Art”, sponsored by ISTE-AICTE and organized by Dr. BATU Lonere, March 15 - 27, 2004.
4. CNC Technology, IGTR Aurangabad, October 16 - 20, 2003.
5. One week STTP on “Advances in Materials and Manufacturing Processes”, organized by Dr. BATU Lonere, 27th June to 1st July 2011.
6. One week STTP on “Nanotechnology”, organized by Dr. BATU Lonere, December 10 – 14, 2012.
7. Institution Building through Appreciative Mindset, conducted by IIT Bombay, August 29, September 2 - 4, 16, 2013.
8. Executive Leadership Programme, Art of Living International Centre, Bengaluru, February 26 – 29, 2020

Most recently taught courses:

UG: Materials Science and Metallurgy, Surface Engineering, Engineering Tribology, Manufacturing Processes - I, II, III

PG: Advanced Joining Technology, Material Removal Processes, Casting and Molding Technology, Powder Metallurgy, Abrasive Machining and Finishing Processes, Sensors for Intelligent Manufacturing, CNC Technology

Research:

Research Interest: Surface Engineering of Cutting Tools, Machining of Exotic Materials

Research Guidance: M. Tech.: 20 (Guided)

Ph.D Guidance: 07 (Awarded: 04, Ongoing: 03)

Sponsored Projects:

Title: Machinability studies of austenitic stainless steel SS304 using coated tools coated by different coating materials

Funding agency: DST, Govt. of India

Grant sanctioned: Rs. 16.8 lacs

Duration: 3 years (03/07/2010 to 22/10/2013)

Consultancy Projects: 01

Client: Venus Wire Industries, Khopoli

Publications:

List of Publications:

International Journal: 26

Indian Journal: 02

International Conferences: 16

National Conferences: 09

Patents: 01

Papers published in International Journals:

1. S S. Gangopadhyay, R. Acharya, A. K. Chattopadhyay, and **V. Sargade**; 'Effect of cutting speed and surface chemistry of cutting tools on the formation of BUL or BUE and surface quality of the generated surface in dry turning of AA6005 Aluminium alloy'; *Machining Science and Technology*, Vol.14 (2), pp. 208-223; 2010
2. **Sargade V. G.**, Gangopadhyay S., Chattopadhyay A.K., Paul S.; 'Effect of coating thickness on the characteristics and dry machining performance of TiN film deposited on cemented carbide inserts using CFUBMS'; *Materials and Manufacturing Processes*, Vol. 26 (8), pp. 1028-1033; 2011
3. Gaurav, Sonawane; **Sargade, VG**; Comparative performance evaluation of uncoated and coated carbide inserts in dry end milling of stainless steel (SS 316L); *International Journal of Computer Applications, IJCA Proceedings on International Conference in Computational Intelligence (ICCIA 2012) ICCIA(8): March 1 - 9, 2012*

4. Kulkarni A. P., Joshi G. G., **Sargade V. G.**, Performance of PVD AlTiCrN coating during machining of austenitic stainless steel, *Surface Engineering*, Vol. 29(5), pp. 402 – 407; 2013
5. Kulkarni A. P., Joshi G. G., Karekar A., **Sargade V. G.**, Analytical and experimental investigation on cutting temperature in turning AISI 304 Austenitic stainless steel using AlTiCrN coating carbide insert, *International Review of Mechanical Engineering*, Vol. 7(1), pp. 189 – 197; 2013
6. Kulkarni A. P., **Sargade V. G.**, 'Performance of multilayered PVD coated cemented carbide inserts during dry turning of AISI 304 austenitic stainless steel', *Advanced Materials Research*, Vol. 794, pp. 248 – 254; 2013,
7. Kulkarni A. P., Joshi G. G., **Sargade V. G.**, , 'Dry turning of AISI 304 austenitic stainless steel using AlTiCrN coated insert produced by HPPMS technique', *Procedia of Engineers*, Vol. 64, pp. 737-746; 2013
8. Wagh S. S., Kulkarni A. P., **Sargade V. G.**, , 'Machinability studies of austenitic stainless steel (AISI 304) using PVD cathodic arc evaporation (CAE) system deposited AlCrN/TiAlN coated carbide inserts', *Procedia of Engineers*, Vol. 64, pp. 907-914; 2013
9. Kulkarni, A. P., Joshi G. G., Karekar A., **Sargade V. G.**, Investigation on Cutting Temperature and Cutting Forces in Turning AISI 304 Austenitic Stainless Steel Using AlTiCrN Coated Carbide Insert, *International Journal of Machining and Machinability of Materials*, Vol. 15(3-4), pp. 147–156; 2014
10. Kulkarni, A.P., **Sargade, V.G.**, 'Characterization and Performance of AlTiN, AlTiCrN, TiN/TiAlN PVD coated carbide tools while turning SS 304', *Materials and Manufacturing Processes*, Vol. 30, pp. 748 – 755 ; 2015 (IF: 2.274)
11. Chopra, Swamini A; **Sargade, V.G.**; Metallurgy behind the cryogenic treatment of cutting tools: an overview; *Materials Today: Proceedings*; Vol. 2; pp. 1814 -1824; (2015) Elsevier
12. **Sargade, V**; Nipanikar, S; Meshram, S; Analysis of surface roughness and cutting force during turning of Ti6Al4V ELI in dry environment; *International Journal of Industrial Engineering Computations*; vol.7, No. 2; pp 257 – 266; 2016
13. Nipanikar, Suresh; **Sargade, Vikas**; Guttedar, Ramesh; Optimization of process parameters through GRA, TOPSIS and RSA models; *International Journal of Industrial Engineering Computations*; Vol.9, No. 1, pp 137 – 154; 2018

14. Kulkarni, Atul; **Sargade, Vikas**; More, Chittaranjan; Machinability investigation of AISI 304 austenitic stainless steels using multilayer AlTiN/TiAlN coated carbide inserts; *Procedia Manufacturing*; Vol. 20, pp 548 – 553; 2018, Elsevier
15. Sonawane, Gaurav D; **Sargade, Vikas G**; Studies on the characterization and machinability of duplex stainless steel 2205 during dry turning; *International Journal of Mechanical and Industrial Engineering*; Vol.13, No. 5; pp. 349 – 353; 2019
16. Sonawane, Gaurav D; **Sargade, Vikas G**; Evaluation and multi-objective optimization of nose wear, surface roughness and cutting forces using grey relation analysis (GRA); *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, Vol. 41, No. 557, pp 1 -13; 2019, Springer
17. Sonawane, Gaurav D; **Sargade, Vikas G**; Machinability study of duplex stainless steel 2205 during dry turning; *International Journal of Precision Engineering and Manufacturing*; Vol. 21, pp 969 – 981, 2020
18. Chavan, Ajay; **Sargade, Vikas**; Surface Integrity of AISI 52100 Steel during Hard Turning in Different Near-Dry Environments; *Advances in Materials Science and Engineering*; Vol. 2020, Article ID: 4256308, 13 pages.(SCI: Impact factor 1.726)
19. Ajay Chavan, and **Vikas Sargade**, “Evaluation of Surface Roughness and Tool Wear in Hardened AISI 52100 Steel Turning under VT and MQL Machining Environment” *International Journal of Mechanical and Production Engineering Research and Development*, Vol. 10, Issue 3, Jun 2020, 61 – 70.
20. Thorat, Shrikant; Lonkar, Vinod; Pailwan, Ashish; **Sargade, Vikas**; Mudigonda, Sadaiah; Effect of metallurgical parameters induced by manufacturing processes on photochemical machining of Co-Cr L605 alloy; *Procedia CIRP*; Vol. 95; pp 149 – 154, 2020
21. Nipanikar, Suresh; **Sargade, Vikas**; ‘ Effect of process parameters during turning of Ti6Al4V-ELI in dry and MQL environments’; *International Journal of Engineering Research and Technology*; Vol. 8 (14), pp. 190-194, 2020
22. Ajay Chavan, and **Vikas Sargade**; “Evaluation of Surface Roughness and Tool Wear in Hardened AISI 52100 Steel Turning Under VT and MQL Machining Environment” *International Journal of Mechanical and Production Engineering Research and Development*, Vol. 10, Issue 3, pp.61–70; 2020.

23. Kulkarni A.P., Chinchani S., **Sargade V.G.**; Dimensional theory and modeling of temperature at the chip – tool interface during turning SS304 based on artificial neural networks; Metal Processing (Technology, Equipment, Tools); 2021; Vol. 23, No. 4; pp 47–64. DoI: 10.17212 / 1994-6309-2021-23.4-47-64.
24. Gaurav D. Sonawane, Suresh R. Nipanikar & **Vikas G. Sargade**; Characterization and experimental evaluation of PVD AlTiN and TiN/TiAlN coatings for dry turning of DSS2205; Journal of the Brazilian Society of Mechanical Sciences and Engineering Volume 44, Article number: 479 (2022)
25. Dhongade Pankaj, **Vikas Sargade**; "Study of morphology and effect of compression moulding parameters on mechanical properties of nanoclay/polymer nanocomposites sheet moulding compound" Research on Engineering Structures and Materials; May 24, 2023; DOI: <http://dx.doi.org/10.17515/resm2023.651me0118>
26. Dhongade Pankaj, **Vikas Sargade**; Effect of Processing Parameter of Compression Molding Process on the Mechanical Properties of Polymer Matrix Composite using E-Glass Fiber, Nanoworld Journal, Volume: 9 Supplement 1, 2023, S153-S155

Papers published in Indian Journals:

1. Kulkarni A. P., Joshi G. G., **Sargade V. G.**, 2013, Design optimization of cutting parameters for turning of AISI 304 austenitic stainless steel using Taguchi method, Indian Journal of Engineering and Material Science, 20, pp. 252 - 258
2. Kulkarni A. P., **Sargade V. G.**, 2013, Investigation into the machinability characteristics of AISI 304 austenitic stainless steels using multilayer TiN/TiAlN coated cemented carbide inserts, Journal of Manufacturing Engineering, 8 (3), pp 178 – 182.

Papers published in International Conferences:

1. **V. G. Sargade**, S. Gangopadhyay, M. Hasurkar, S. Paul, A.K. Chattopadhyay; 'Deposition, characterization, and performance evaluation of TiN coated HSS and cemented carbide cutting tools using closed-field unbalanced magnetron sputtering, 2nd International and 23rd AIMTDR Conference, December 15 – 17, 2008, IIT Madras.

2. B. F. Jogi, **V. G. Sargade**, R. S. Pawade; 'An emerging need to develop industries through ERP'; International Conference on e-manufacturing; November 17-19, 2002, BHEL and MACT, Bhopal.
3. Kulkarni A. P., **Sargade V. G.**, Joshi G. G., 2012, Development in Sputtering Deposition Technology Applicable to Cutting Tool, Proceedings of 1st ICFMD-2013 Conference, Defense Institute of Advanced Technology (DU), pp.111.
4. Huddedar S., Kulkarni A. P., Joshi G. G., **Sargade V. G.**, 2012, Microstructure and mechanical properties of AlTiCrN, AlCrN coatings deposited by cathodic arc evaporation (PVD) technique, Proceedings of 21st PFAM Conference IIT Guwahati, 1, pp. 473 – 478
5. Kulkarni A. P., **Sargade V. G.**, Huddedar S., 2012, Investigation into the machinability characteristics of AISI 304 austenitic stainless steels using AlCrN coated cemented carbide inserts, Proceedings of 21st PFAM Conference IIT Guwahati, 2, pp. 339 – 343.
6. Joshi G. G., Kulkarni A. P., **Sargade V. G.**, 2012, Investigation into the machinability characteristics of AISI 304 austenitic stainless steels using AlTiCrN coated cemented carbide inserts, 25th AIMTDR Conference Jadavpur University Kolkata, 3, pp. 59.
7. Kulkarni A. P., **Sargade V. G.**, 2013, Investigation into the machinability characteristics of AISI 304 austenitic stainless steels using multilayer TiN/TiAlN coated cemented carbide inserts, Proceedings of 3rd RAMPT'13 conference NEC Kovilpatti, pp. 1 – 5.
8. Kulkarni A. P., Joshi G. G., Karekar A., **Sargade V. G.**, 2013, Investigation on cutting temperature and cutting force in turning AISI 304 austenitic stainless steel using AlTiCrN coated carbide insert, Proceedings of 2nd INCAMA-2013 conference Kalasalingam University, pp.526 – 531.
9. Karekar A., **Sargade V. G.**, Kulkarni A. P., 2013, Experimental Investigation of chip-tool interface temperature during machining of AISI 304 using TiAlN coated and uncoated cemented carbide insert, Proceedings of 3rd CPIE-2013 conference Jalandar, pp. 1 – 5.

10. S. Gadhari, A. A. Chavan, **V. G. Sargade**, "Hard Turning of AISI 52100 using PVD coated Inserts under Different Machining Environments", 6th International and 27th All India Manufacturing Technology, Design and Research Conference AIMTDR 2016 held at CoE Pune during December 16 – 18, 2016.
11. Sonavane Gaurav; **Sargade V. G.**; Machinability studies of Duplex Stainless Steel 2205 using coated tools; Int. Conf. on Precision, Meso, Micro Nano Eng. (COPEN 10), IIT Madras Chennai, pp 460 – 463; 2017.
12. Sonavane Gaurav; **Sargade V. G.**; Studies on Characterization and Machinability of Duplex Stainless Steel 2205 during Dry Turning; International Conference on Industrial, Mechanical and Manufacturing Science (ICIMMS 2019); 13 (5), pp. 349 – 353; 2019.
13. Nipanikar, S., **Sargade, V.**, (2018) "Analysis of Machinability Indices during Turning of Ti6Al4V ELI" International Conference on Innovations and Recent Trends in Engineering", at Arvind Gavali College of Engineering, Satara, India, 2018.
14. Ajay Chavan and **Vikas Sargade**, "Statistical and Multi-Attribute Analysis in Hardened Steel Turning under Vegetable Oil based MQL" Third International Conference 'Techno-Societal 2020', College of Engineering, Pandharpur, India, December 14 – 16, 2020. (**Published as book chapter, https://doi.org/10.1007/978-3-030-69925-3_75**)
15. Pankaj M. Dhongade, Prof. **V. G. Sargade**, "Mechanical Testing of Polymer Composite Sheet Molding Compound Fabricated by Randomly Oriented Discontinuous E-glass Fiber" International Conference on Manufacturing, Material Science and Engineering (ICMMSE-2022), Sri Venkateswara College of Engineering and Technology, Chittoor, Andhra Pradesh, India, December 30-31, 2022
16. Pankaj M. Dhongade, **Prof. V. G. Sargade**; Effect of Mixing of Different Lengths Randomly Oriented Discontinuous E-Glass Fiber on Mechanical Properties of Polymer Composite Sheet Moulding Compound; 2nd International Conference on Advancement in Science, Technology and Management (ICASTM - 2023), July 27 - 28, 2023, S. B. Jain Institute of Technology, Management & Research, Nagpur-Maharashtra State, India.

Papers published in National Conferences:

1. R. R. Thorat, **V.G. Sargade**; 'Growth of polycrystalline diamond film on high speed cutting tools: An overview'; National Conference on Advanced Manufacturing and Robotics; January 10-11, 2004; CMERI Durgapur, W.B.
2. G. J. Sawaisarje, **V. G. Sargade**; 'Application of diamond as a high precision turning tool; National Conference on Automation in Manufacturing; March 8-9, 2003, G.H. Raison College of Engineering, Nagpur
3. B. F. Jogi, **V. G Sargade**, K.G. Vhantale; 'Agile manufacturing – a need of today's competitive world'; National Conference on Advances in Manufacturing Technology; February 15-16, 2003; NSS College of Engineering, Palakkad.
4. B. F. Jogi, **V. G Sargade**, A. Kitey; 'Cellular manufacturing – a lead time reducer'; National Seminar on Vehicle Dynamics; College of Engineering, Visakhapatnam.
5. **V. G Sargade**, B. F. Jogi, P.Taku; 'Business Process Re-engineering as a dynamic tool for TQM'; National Conference on Quality Engineering and Management; January 3-4, 2003; Kumaraguru College of Technology, Coimbatore.
6. B. F. Jogi, **V. G Sargade**; 'Strategy and tactics to develop global knowledge society'; National Seminar on Human values in technical education; December 27--29, 2001; KIT, Bhubaneswar.
7. Nipanikar, S., **Sargade, V.**, "Effect of Process Parameters on Surface Roughness, Cutting Force and Flank Wear during Machining of Titanium Alloy" National Conference on Recent Trends in Engineering and Technology", at Karmaveer Bhaurao Patil College of Engineering, Satara, 2018.
8. Nipanikar, S., **Sargade, V.**, (2018) "Analysis of flank wear in machining of Ti6Al4V ELI in dry environment" National Conference on Recent Trends in Engineering and Technology" at Karmaveer Bhaurao Patil College of Engineering, Satara, 2018.
9. Nipanikar, S., **Sargade, V.**; "Effect of Process Parameters during Turning of Ti6Al4V-ELI in Dry and MQL Environments"; National Conference on Emerging Trends in Engineering Science for Future Technology at Sri Siddhartha Institute of Technology, Tumkur, 2020.

Patent:

1. Dr. Babasaheb Ambedkar Technological University Lonere, TEQIP-III, **Dr. V. G. Sargade**, Shivasheesh Kaushik; Biofuel Composition and Method of preparation thereof; Date of filing: 23/3/2021; Date of Publication (under Section 11A): 2/7/2021; Office of the Controller General of Patents, Designs and Trade Marks, Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Govt. of India; Application Number: 202121012478.

Contributions in the University/Departmental activities:

- i. Member, BoS for Mechanical Engg.
- ii. Coordinated National level event 'Cynosure-2010'
- iii. Worked as Member, Library Committee
- iv. Worked as Director, IQAC
- v. Worked as University Time-Table Co-ordinator
- vi. Worked as Member, Academic Council
- vii. Worked as Member, Executive Council
- viii. Worked as I/c Registrar
- ix. Chairman, Standing Administrative Committee
- x. Coordinator, Backward Category Cell
- xi. Worked as Co-coordinator of TEQIP-II
- xii. Member of Academic Audit Committee of SPFU during TEQIP-II
- xiii. Coordinator, Twinning, TEQIP-III
- xiv. Chairman, Board of Students Development and Extension Activities
- xv. Dean, Students' Welfare