Faculty Profile

1. Name of Faculty: Dr Sunil B Mahagaonkar
2. Present Position :Selection Grade Lecture in Mechanical Engineering
3. Address : Sahyadri Apartment, PL-6A-11-8, Sector 14
   Khanda Colony, New Panvel (W), Navi Mumbai, Maharashtra
4. Mobile No. : 9730049994
5. E-Mail Id : mailsbm@gmail.com
6. Date of joining(Govt of Maharashtra): 28 August 1994
   (Govt. Poly. Mumbai) : 07 august 2015
7. Total Teaching Experience in years: 35 (including Pvt Institute)
8. Memberships of professional organizations/Bodies :

Sr. No.	Name of the Body	Status of Membership (Life/Annual)
01	ISTE	Life Member

QUALIFICATIONS: (Graduation and Onwards)

Sr. No.	Degree	University	Class Award	Year of Passing
01	**B.E. (Mech.)**	**Gulbarga University Gulbarga**	**First**	**1984**
02	**M.E. (Mech. Design)**	**Walchand College of Engineering, Sangli, Shivaji Universty Kolhapur**	**First with Dist^{n}**	**1994**
03	**Ph.D (Mech.)**	**Dr. Babasaheb Ambedkar Technological University, Lonere, Maharashtra**		**2009**

CAREER DETAILS:

Sr. No.	Organization	Designation	Duration	Period	Work Done in Brief
01	Rajeshree Cements Malkhed, Gulbarga	Assistant engineer	1 year and 8 months	1st January 1985 to Sept 1986	Maintenance
02	Pravar Rural Engineering College Loni, (M.S)	Lecture in Mechanical engineering	6 year and 5 months	20/9/1986 to 04/08/1992 and 09/02/1994 to 25/08/1994	Worked as Faculty in Mechanical Department and done activities like preparationof Drawing Manual. Published book in Engineering Drawing during this period
03	Government Polytechnic Ratnagiri (M.S)	Lecture in Mechanical engineering	17 years	29/08/1994 to 30/06/2011	Worked as Faculty in Mechanical Department and worked as in-charge for RAC, admission and Gathering activities. Completed Ph D in Mechanical during this tenure
04	Government Polytechnic PUNE(M.S)	Lecture in Mechanical engineering	04 Years	01/07/2011 to 31/08/2015	Worked as in-charge head for second shift in Mechanical Department and holds in-charge for RAC, admission and Gathering activities. Worked as a Co-Ordinator for AICTE Industry Link Survey and Academic Co-Ordinator
05	Government Polytechnic Mumbai (M.S)	Lecture in Mechanical engineering		07/08/2015 to till now	Worked as Faculty in Mechanical Department and worked as in-charge for LA, and admission process. Working as departmental Academic and NBA coordinator

TRAINING COURSES ATTENDED:

Sr. No	NAME OF THE COURSE	NO.0F WEEKS	F ROM	TO	VENUE	ORGANISER
01	Computer Awerness	08				
	1.Introduction and DOS		02-09-96	13-09-96	Ratnagiri.	ISTE Ratnagiri
	2.WordStar		16-09-96	27-09-96	Ratnagiri.	ISTE Ratnagiri
	3.Program in Basic		30-09-96	11-10-96	Ratnagiri.	ISTE Ratnagiri
	4.dBase		14-10-96	25-10-96	Ratnagiri.	ISTE Ratnagiri
02	Management Science /App.to Computer	06				
	1.Financial Management		21-04-97	02-05-97	Ratnagiri.	ISTE Ratnagiri
	2.Costing & Computer Application		04-08-97	14-08-97	Ratnagiri.	ISTE Ratnagiri
	3.Office Management & Comp.Appln.		18-08-97	29-08-97	Ratnagiri.	ISTE Ratnagiri
03	Computer Awerness/Applications	02				
	1.Lotus 1-2-3		16-12-96	27-12-96	Ratnagiri.	ISTE Ratnagiri
04	Industrial Training	12	06-01-97	28-03-97	TTTI Bhopal	World Bank Assisted project
05	Development of Industrial Based Learning Materials-Mechanical Engg.	01	04-01-99	08-01-99	TTTI Bhopal	World Bank Assisted project
06	Diploma in Information Technology Course Certificate	12	November 99	February 2000	RIIT Ratnagiri	Govn.of Maharastra

07	Opportunities and Challenges in High Precision Manufacturing:Vision 2020	02	18-11-02	30-11-02	Dr BATU Lonere	ISTE-AICTE Sponsored
08	Creep, Fatigue and Fracture: State- of-the-Art	02	15-03-2004	27-03-2004	Dr BATU Lonere	ISTE-AICTE Sponsored
09	Confirmatory Test of Computer Training for Government employees		16-01-04	--------	G.P.Ratnagiri	Passed in Ist Attempt
10	Induction Programme Phase - I	02	22-11-04	03-12-04	NITTTR, Pune	NITTTR, Bhopal
11	Induction Programme Phase – II	02	22-05-06	02-06-06	NITTTR, Bhopal	NITTTR, Bhopal
12	NBA Accreditation	01	22/04/2019	26/04/2019	G P Mumbai	NITTTR, Bhopal
13	Entrepreneurship, Incubation and Innovation	01	23/06/20	29/06/20	Online	MHRD Delhi University

Publications :

A. Papers in refereed journals :

i) International Journals: 12
ii) National Journals : 05

B. Papers in Conference Proceedings

i) International Conferences : 24
ii) National Conferences :11

1. Invited Talks:
   - A talk on "Enhancement of fatigue life on Shot Peened Bio-medical Implants- An over View" at the Int. national Conference FRACTURE-2014

2. CHAPTER PUBLICATION:

   Edited Book Title: *Process Control: Problems, Techniques and Applications*

   Chapter Title: SHOT PEENING PROCESS; THE – STATE – OF – ART

   Publisher: NOVA PUBLISHERS
3. BOOK PUBLICATION :

   Title of the book: Engineering Graphics.
   Publisher: Vrinda Publications Jalgaon

List of Publications in International Journal

Sr. No.	Names of authors as appearing in the publication	Title of the paper	Name of Journal	Vol (year) pp	Impact factor
01	Mahagaonkar, S. B., Brahmankar, P. K. and Seemikeri, C. Y	Effect on Fatigue Performance of Shot Peened Components: An Analysis Using DOE Technique	International Journal of Fatigue	Vol. 31 (4), 2009, pp. 693-702	Im. F 1.556 H-43
02	Mahagaonkar, S. B., Brahmankar, P. K., and Seemikeri , C. Y	Effect of Shot Peening Parameters on Microhardness of AISI 1045 and 316L Material: An Analysis Using Design of Experiment	International Journal of Advanced Manufacturing Technology	Vol. 38, 2008, pp. 563-574	Im. F 0.743 H-28
03	Mahagaonkar, S. B., Brahmankar, P. K., and Seemikeri , C. Y	Effect of Shot Peening Parameters on the Surface Integrity of 316L Material	International Journal of Machining and Machinability of Materials	Vol.4 (2/3), 2008, pp. 195-216	H-1
04	Mahagaonkar, S. B., Brahmankar, P. K., and Seemikeri , C. Y	Some Investigations into Development of Nozzle and Its Suction System for Air Blast Shot Peening Machine	International Journal of Advanced Manufacturing Technology	Vol. 44, 2009, pp. 306-317	Im. F 0.743 H-28
05	Mahagaonkar, S. B., Brahmankar, P. K., and Seemikeri , C. Y	DOE – A Novel Approach in Studying Interaction Effect of Shot Peening Parameters on Surface Roughness and Microhardness of 316L Material	Manufacturing Technology & Research, an International Journal	Vol. 3(1/2), 2007, pp. 86-92	
06	Mahagaonkar, S. B., Brahmankar, P. K., and Seemikeri , C. Y	Parametric studies on Surface Hardness and roughness of Shot Peened AISI 4340 Material	Journal of Mechatronics and intelligent Manufacturing	Vol. 1, Issue no.3, 2009.	
07	Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B	Parametric Studies on Low Plasticity Burnishing on the Surface Hardness of AISI 316L	Manufacturing Technology & Research, an International Journal	Vol. 2(3/4), 2006, pp. 78-82	
08	Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B	Some studies on Design and Performance analysis of a New Low Plasticity Burnishing Tool	International Journal of Machining and Machinability of Materials	Vol. 4, Nos. 2/3, 2008. pp. 237-251	H-1
09	Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B	Low Plasticity Burnishing: An Innovative Manufacturing Method for Bio-medical applications	J. Manuf. Sci. Eng	Vol. 130, Issue 2	H-39
10	Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B	Investigations on Surface Integrity of AISI 1045 using a Newly Designed Low Plasticity Burnishing Tool	Tribology International	Vol. 41(8), 2008	Im. F 1.423 H-40
11	Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B	The Influence of Surface Enhancement by Low Plasticity Burnishing on the Surface Integrity of Steels	International Journal of Surface Science and	Vol. 4, No 4/5/6,	H-1

			Engineering	2010 Pp 465-491	
12	Seemikeri, C. Y., Mahagaonkar, S. B and Brahmankar, P. K.	Improvements in Surface Integrity and Fatigue Life of Low Plasticity Burnished Surfaces	International Journal of microstructure and material properties (IJMMP)	Vol. 7, No 1,2012 Pp 23-48	

List of Publications in National Journal

Sr. No.	Names of authors as appearing in the publication	Title of the paper	Name of Journal	Vol (year) pp	Impact factor
01	Mahagaonkar, S. B., Brahmankar, P. K., and Seemikeri , C. Y	Influence of Shot Peening Parameters on Surface Roughness and Microhardness Using DOE Technique	Manufacturing Technology Today	Vol. 6, 2007, pp.10-14	
02	Mahagaonkar, S. B., Brahmankar, P. K., and Seemikeri , C. Y	Influence of Shot Peening Parameters on Fatigue Life and Surface Hardness of AISI 1045 Material	Journal of Institution of Engineers	Vol. 90, 2009 pp. 30-35	
03	Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B	Effect of A Newly Designed L.P.B. Tool on the Surface Enhancement of AISI 1045: A Study	Manufacturing Technology Today	Vol. 5(9),2006, pp. 15-19	
04	Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B	Some Investigations into Low Plasticity Burnishing of AISI 316L	CMTI Journal	Vol. 6, 2007, Issue No. 5, pp.17-21	
05	Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B	Enhancing Fatigue Life of AISI 1045 Using a New LPB Tool: A Study	Journal of Institution of Engineers	Vol. 89, 2009 pp. 14-18	

List of Papers Published in International Conference Proceedings

1. Brahmankar, P. K., Mahagaonkar, S. B. and Seemikeri, C. Y., 2006, "Shot peening; state-of-the-art," *Proceedings of the International Conference*, *ICAMMP-2006*, I.I.T. Kharagpur, 2-3 Feb 2006, India, pp. 296-303.
2. Mahagaonkar, S. B., Brahmankar, P. K., and Seemikeri, C. Y., 2006, "A Study of Interaction Effects of Shot Peening on Surface Roughness by Using Taguchi Technique," *Proceedings of the PCEA – IFToMM International Conference-PICA 2006 PCE&A*, Nagpur, July 11-14, 2006, India,
3. Mahagaonkar, S. B., Brahmankar, P. K. and Seemikeri, C. Y., 2006,"State-of-the-Art: Application of Shot Peening in the Enhancement of Microhardness on En8 Material - An ANOVA Analysis," *International Conference on Advances in Mechanical Engineering, AME-2006*, 1-3 December 2006, Fatehgarh Sahib, Punjab, India, pp. 182-186.

4. Mahagaonkar S. B., Brahmankar. P. K., and Seemikeri C. Y, 2006, "Effect of Shot Peening Parameters on Microhardness of AISI 1045 and 316L Material: an Analysis Using DOE," *First International, 22nd AIMTDR Conference IIT Roorkee*, India, pp. 451-456.
5. Brahmankar, P. K., Mahagaonkar, S. B. and Seemikeri C. Y., 2006, "Parametric Studies on the Surface Enhancement of Shot Peened Components," *Proceedings of the International Conference 5th Materials Processing for Properties and Performance*, MP3, 11-15 December, 2006 Aerospace Engineering, Nanyang Avenue Singapore.
6. Mahagaonkar, S. B., Brahmankar, P. K., and Seemikeri, C. Y., 2007, "Effect of Shot Peening Parameters on Surface Roughness and Microhardness of AISI 1045 Material," *CPIE-2007*, March 22-24, NIT, Jalander, India.
7. Mahagaonkar, S. B., Brahmankar, P. K. and Seemikeri, C. Y., "Interaction Effects of Shot Peening Parameters on Surface Roughness and Microhardness Using DOE Technique," *International Conference and Exhibition on Total Engineering, Analysis & manufacturing Technologies, TEAM TECH 2007, IISc Banglore, 4th October, 2007.*
8. Mahagaonkar, S. B., Brahmankar, P. K. and Seemikeri, C. Y., "Effect of Shot Peening Parameters on Fatigue Life and Microhardness of AISI 1045 Material," *International Conference in Advanced Manufacturing Technologies*, Nov 29-30, 2007, Durgapur, paper No: NNSM 002.
9. Mahagaonkar, S. B., Brahmankar, P. K. and Seemikeri, C. Y., "Effect of Shot Peening Parameters on Fatigue Life and Microhardness of AISI 1045 Material," *International Conference in Advanced Manufacturing Engineering*, Dec 15-17, 2008, SVNIT Surat, pp. 963-967.
10. Mahagaonkar, S. B., Brahmankar, P. K. and Seemikeri, C. Y., "Parametric Studies on the Fatigue Performance of Shot Peened AISI 316L Material," *The Tenth International Conference on Shot Peening*, Tokyo, Japan September 15th18,2008.
11. Mahagaonkar, S. B., Seemikeri, C. Y andBrahmankar, P. K., "Parametric Studies on Wear of Shot Peened AISI 1045 Material," *International Conference in Advanced Manufacturing Engineering*, September23-25, 2010, SVNIT Surat, pp. 438-442.
12. Mahagaonkar, S. B. and Joshi S.G., "Theoretical and Experimental Shear Stress Analysis of Single Lap Adhesive Bonded Joint," *International Conference in Advanced Manufacturing Engineering*, Dec 20-22, 1995, IISc. Bangalore.
13. Brahmankar, P. K., Seemikeri, C. Y. and Mahagaonkar, S. B., 2006, "A Review of Burnishing; State-of-the-art," *Proceedings of the ICAMMP-2006,* IIT, Kharagpur, Feb 2006, pp. 288-295.

14. Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B., 2006, "Low Plasticity Burnishing [L.P.B] - a Novel Method of Surface Enhancement: A Study,"*TEAM TECH 2006,* I.I.Sc. Bangalore, Feb. 2006, Paper No. TT-52.
15. Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B., 2006,"A Study of the Effects of Low Plasticity Burnishing Parameters on the Surface Roughness of AISI 1045**,"** *Proceedings of the International Conference on Automation (PICA-2006),*PCEA, Nagpur (India), July 2006.
16. Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B., 2006, "Some Investigations on Surface Enhancement of 316L using a Newly Designed Low Plasticity Burnishing [L.P.B] Tool," *International Conference on Advances in Mech. Engg. [AME-2006],*BBSBEC, Fatehgarh Sahib,Dec 2006. MP-III pp. 187-191.
17. Brahmankar, P. K, Seemikeri, C. Y. and Mahagaonkar, S. B., 2007, "Some Studies on Enhancing the Fatigue Life of AISI 316L using a New Low Plasticity Burnishing Tool,"*5th International Conference on Materials Processing for Properties and Performance* [MP3], Dec 2006, Singapore, paper no. AMFT-057.
18. Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B., 2007, "The Influence of Surface Enhancement by Low Plasticity Burnishing on the Surface Hardness of Steels,"*Proceedings of the International Conference on Advances in Manufacturing and Technology Management [ICAMTM],* Parshvanath college of Engg. Thane, India*,* Jan 2007, pp. 533-540.
19. Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B., 2007, "The Influence of Low Plasticity Burnishing on the Surface Enhancement of Steels,"*CPIE-2007*, *Global conference on Production and Industrial Engineering,* Dr. B. R. Ambedkar NIT, Jalandhar, Punjab India, March 2007, Paper no. 146.
20. Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B., 2007, "Some Studies on Low Plasticity Burnishing of Aluminium Alloy 7075-T6," *6th International Conference on Materials Processing for Properties and Performance MP3-2007,* Beijing, China. Sept. 2007. Paper ID. 1418
21. Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B., 2007," Effect of Low Plasticity Burnishing on the Surface Hardness of AA7075-T6," *International Conference TEAM TECH-2007,* I.I.Sc. Bangalore, India. Oct. 2007.
22. Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B., 2007, "Effect of Low Plasticity Burnishing Parameters on the Surface Enhancement of AA7075-T6," *International Conference On Advanced Manufacturing Technologies ICAMT-2007,* Central Mechanical Engineering Research Institute, Durgapur, India. 29-30 Nov. 2007. Paper code NNSM 005
23. Seemikeri, C. Y., Mahagaonkar, S. B andBrahmankar, P. K.,2010, "Parametric Studies of Low Plasticity Burnishing on the Surface Enhancement of AA 7075-T6,"

International Conference in Advanced Manufacturing Engineering, September23-25, 2010, SVNIT Surat, pp. 265-270.

24. Dr. Mahagaonkar, S. B., 2014 'Enhancement of fatigue life on Shot Peened Bio-medical Implants- An over View', First World International conference on Fracture and Damage Mechanics, Fracture-2014, Kottayam, Mahatma Gandhi University, Kerala

List of Papers Published in National Conference Proceedings

1. Brahmankar, P. K., Mahagaonkar, S. B. and Seemikeri, C. Y., 2006, "An Overview of Shot Peening on High Strength Materials,"*Proceedings of the National Conference*, *NCRTM-2006*, K.I.T. Kolhapur, 7-8 Jan 2006, India, pp. 38-45.
2. Brahmankar, P. K., Mahagaonkar, S. B. and Seemikeri, C. Y., 2006, "A Review on Shot Peening Technology," *Proceedings of the National Conference*, *AIME-2006*, J. M. U. New Delhi, 20 -21 Jan 2006, India, pp. 32-38.
3. Brahmankar, P. K., Mahagaonkar, S. B. and Seemikeri, C. Y., 2006, "A Review of Parametric Studies on Shot Peening Technology,"*Proceedings of the National Conference, ETA-2005*, SaurashtraUniversity, Rajkot, 1-2 Oct 2005, India.
4. Mahagaonkar, S. B., Brahmankar, P. K. and Seemikeri, C. Y., 2006, "Shot Peening- A Surface Enhancement Technique: A Study on En8 Material," *Proceedings of the National Conference on State of the Art Technologies in Mechanical Engineering, NCSAME-2006*, 5-6 May 2006, India.
5. Mahagaonkar, S. B. and Seemikeri, C. Y., 2006, " Effect of Shot Peening Parameters on AISI 1045 Material,"*Proceedings of the National Conference, ETA-2006*, Saurashtra University, Rajkot, 1-2 Oct 2006, India.
6. Brahmankar, P. K., Seemikeri, C. Y. and Mahagaonkar, S. B., 2005, "A Review on Roller Burnishing Technology," *National Conference on Emerging Technologies ETA-2005,* Sourashtra University, Rajkot, Oct 2005.
7. Brahmankar, P. K., Seemikeri, C. Y. and Mahagaonkar, S. B., 2006, "Low Plasticity Burnishing Technology; State-of-the-art," *Proceedings of the NCRTM-2006,* K.I.T. Kolhapur, Jan 2006, pp. 8-13.
8. Brahmankar, P. K., Seemikeri, C. Y. and Mahagaonkar, S. B., 2006, "A Review of Conventional Burnishing Technology," *Proceedings of the AIME-2006*, J.M.I. New Delhi, Jan 2006, pp. 21-27.
9. Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B., 2006,"Effect of the Low Plasticity Burnishing (LPB) Parameters on the Surface Hardness: A Study," *National Conference on State-of-the-art of technologies in Mech. Engg. [NCSAME-2006],* JNTU, College of Engg. Hyderabad, May 2006.

10. Seemikeri, C. Y. and Mahagaonkar, S. B., 2006, "Preliminary investigations into low plasticity burnishing of steels,"*National Conference on Emerging Technology Applications ETA- 2006,*SourashtraUniversity, Rajkot, Oct 2006
11. Seemikeri, C. Y., Brahmankar, P. K. and Mahagaonkar, S. B., 2007, "Some Investigations on Surface Improvement of AISI 1045 Using a New Low Plasticity Burnishing Tool," *National Conference NCAM2007,* FCRC, College of Engg. Bandra, Mumbai, India. Oct. 2007.

Specialization/ Area of Interest:

CURRENT AREAS OF INTEREST AND RESEARCH :

Surface enhancement process such as Shot Peening and Low Plasticity Burnishing, Process modeling and Optimisation. Some of the interested research areas are mentioned below:

- Enhancement of wear resistance through shot peening on biocompatible materials like Ti-6Al-4V and 316L.
- Study of increase in implant corrosion resistance like; pitting, galvanic, corrosion fatigue and fretting corrosion.
- Study of systematic experimental investigations through DOE/Gray Analysis/Genetic Algorithm technique, so as to determine the interaction effects of the peening parameters namely pressure, shot size, nozzle distance and the exposure time on biomaterials like Ti-6Al-4V and AISI 316L.
- Effect of shot peening on fatigue performance of these materials and Fatigue-wear approach using simulated physiologic multi-axial loading.
- Optimizing shot peening process parameters, so as to control cold work, on high temperature application materials. Such studies may be very useful in increasing thermal relaxation resistance of the material.

Portfolios handled at department level(Last 3 years): Working as NBA coordinator and academic coordinator