



Dr. Sandeep Soni

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Educational Qualifications:

Degree	Branch/Specialization	Year	Institute/University
Ph.D.	Mechanical Engineering	2017	S.V.N.I.T., Surat (Gujarat)
M.Tech.	Mechanical Engineering (Industrial Design)	2004	M.A.N.I.T., Bhopal (M.P.)
B.E.	Mechanical Engineering	1998	Dr. Harisingh Gour University, Sagar (M.P.)

Employment Details:

Designation	Duration	Institute/Organization
Assistant Professor	30 th Mar 2009 to Till date	S.V.N.I.T., Surat (Gujarat)
Assistant Professor	16 th Oct 2001 to 26 th Mar 2009	Technocrats Institute of Technology, Bhopal (M.P.)
Lecturer	23 rd Nov 2000 to 07 th Jul 2001	Bansal Institute of Science and Technology, Bhopal (M.P.)
Lecturer	03 rd Mar 1999 to 07 th Jul 2000	Bhopal Engineering College, Bhopal (M.P.)

Administrative / Departmental Activity Experience:

Administrative Duties	Duration	Institute/Organization
Laboratory Incharge (Metrology Lab)	21 st Jan 2011 to 21 st Jan 2013	SVNIT, Surat
Laboratory Incharge (CAD Lab)	24 th Aug 2012 to 24 th Aug 2014	SVNIT, Surat
Laboratory Incharge (CAD Lab)	18 th Mar 2014 to 18 th Aug 2016	SVNIT, Surat
Laboratory Incharge (CAD Lab)	18 th Mar 2014 to Till date	SVNIT, Surat
Coordinators, Annual Reports, Website, MIS etc.	01 st Mar 2011 to 01 st Mar 2013	SVNIT, Surat
Coordinators, Annual Reports, Website, MIS etc.	01 st Sept 2012 to 01 st Sept 2014	SVNIT, Surat
Coordinators, Data Collection of Publication- Journal / Conference etc.	01 st Sept 2012 to 01 st Sept 2014	SVNIT, Surat
Coordinators, AMC (Computer Peripherals)	01 st Sept 2012 to 01 st Sept 2014	SVNIT, Surat
Coordinators, Students Grievances/ Feed Back Forms etc.	01 st Jan 2015 to 01 st Jan 2017	SVNIT, Surat
Coordinators, Data Publication (Journal / Conference etc.), Website update, MIS, Annual Report Preparation etc.	01 st Jan 2015 to 01 st Jan 2017	SVNIT, Surat
Workshop In-charge	10 th Apr 2017 to Till date	SVNIT, Surat
Coordinator AMC (Computer Peripherals)	10 th Apr 2017 to Till date	SVNIT, Surat
Coordinators Department Elective and Institute Elective Subjects	10 th Apr 2017 to Till date	SVNIT, Surat
Faculty Advisor (B. Tech.- V and VI Semester of Mechanical Eng. Dept.)	2011-12, 2012-13, 2013-14, 2014-15, 2015-16, 2016-17, 2017-18	SVNIT, Surat

Member, Ph.D. and M. Tech. (Research) Programme Scrutiny / Verification Committee	06 th Jul 2017 (2017-18); 03 rd Dec 2016, 30 th Jun 2016 (2016-17); 05 th Dec 2014, 03 rd Jul 2014 (2014-15); 06 th Dec 2013, 08 th Jul 2013 (2013-14); 29 th Nov 2012, 11 th Jul 2013 (2012-13); 01 st Jun 2011 (2011-12).	SVNIT, Surat
Member, Result Verification Committee in Examination Cell of the Institute	09 th May 2017	SVNIT, Surat
Member, Teaching Assistant (TA) Scrutiny / Verification Committee	03 rd Jul 2017 (2017-18); 16 th Jul 2014, 29 th Dec 2014 (2014-15).	SVNIT, Surat
Member, Scrutiny Committee of the Teaching Positions of Mechanical Engineering Department	16 th Apr 2010	SVNIT, Surat
Chairman, M. Tech. (CS) Dissertation Examination (ECED)	07 th Jul 2015	SVNIT, Surat
Examiner, Practical Exams of Mechanics of Automotive Body	03 rd Jan 2015	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli
Assessment of Answer Books (Mechanics of Automotive Body)	23 rd Jan 2015	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli
Member, Committee for UG Programme Curriculum Revision for B. Tech. (Mechanical Eng.)	27 th Aug 2014	SVNIT, Surat
Member, Interaction with TEQIP Auditor	20 th Jan 2015	SVNIT, Surat
Member, Committee for Document Verification Scrutiny for CCMT/ Sponsored/ Non-Sponsored / Non-GATE (Mechanical Eng.)	04 th Jul 2014 (2014-15)	SVNIT, Surat

Member, Committee for Document Verification Scrutiny for M. Tech. Sponsored/ Non-Sponsored / Non-GATE (Mechanical Eng.)	25 th Jul 2014 (2014-15)	SVNIT, Surat
Member, Committee for Scrutiny of Applications for M. Tech. under Sponsored/ Non-Sponsored / Non-GATE (Mechanical Eng.)	01 st Jul 2013 (2013-14)	SVNIT, Surat
Member, Committee for Scrutiny of Applications for M. Tech. under Sponsored/ Non-Sponsored / Non-GATE (Mechanical Eng.)	15 th Jun 2012 (2012-13)	SVNIT, Surat
Member, Accredation Team for Design and Dynamics Engineering (Mechanical Eng.)	18 th Mar 2014 (2013-14)	SVNIT, Surat
Member, Accredation Team for Design and Dynamics Engineering (Mechanical Eng.)	05 th Jan 2016 (2015-16)	SVNIT, Surat
Member, Accredation Team for B. Tech. (Mechanical Eng.)	11 th Feb 2014 (2013-14)	SVNIT, Surat
Member, Accredation Team for M. Tech. (CAD/CAM)	30 th Jan 2014 (2013-14)	SVNIT, Surat
Member, Accredation Team for B. Tech. (Mechanical Eng.) & M. Tech. (CAD/CAM)	10 th Dec 2012 (2012-13)	SVNIT, Surat
Member, Accredation Team for M. Tech. (CAD/CAM)	30 th Jan 2012 (2011-12)	SVNIT, Surat
Member, Committee for Scrutiny of Ph.D. Applications (QIP) (Mechanical Eng.)	26 th Dec 2013 (2013-14), 26 th Dec 2012 (2012-13)	SVNIT, Surat
Co-coordinator Examination (UG/PG/Ph.D.) (Mechanical Eng.)	25 th Apr 2013 (2013-14)	SVNIT, Surat
Member, Performance Audit of TEQIP-II (Mechanical Eng.)	12 th Mar 2013 (2012-13)	SVNIT, Surat
Member, Departmental TEQIP Committee (Mechanical Eng.)	15 th Feb 2013 (2012-13)	SVNIT, Surat

Area of Research:

Machine Design, Tribology and Bearing Design, Hydrodynamic/Hydrostatic Lubrication, Wear of Machine Components, Analysis of Steam Turbine, Finite Element Analysis, CAD-CAM.

International / National Visits:

- 2016** NCTEEE-2016, National Conference on Tribology: Energy, Environment and Efficiency, Organised by CSIR(AMPRI) & Tribology Society of India, **Bhopal (India)**, January 21-22, 2016.
- 2015** **TurkeyTRIB-2015**, First International Conference on Tribology, Organised by Yildiz Technical University, **Istanbul (Turkey)**, October 07-09, 2015.
- 2014** **ASIATRIB-2014**, Asian Tribology Conference, Organised by Tribology Society of India, **Agra (India)**, February 17-20, 2014.

Extra Curricular Activities:

- Recipient of The National Merit Scholarship (Govt. of India) in High School Examination, 1990.
- Outstanding Performance in All India Board of General Knowledge and Moral Education Examination.
- President and Secretary of Students Council of Govt. Polytechnic, Ashoknagar during 1993-94.
- Organizes M. P. State Level Intercollege Paper Presentation “**PARWAAZ-06**” and “**PARWAAZ-07**” in two consecutive years at Technocrates Institute of Technology, Bhopal (M.P.).
- Participated in Various Athletic Meets and Sports Events at School Level.

Research Guidance:

Ph.D.	-	-
M.Tech.*	13 (Awarded)	01 (In Progress)
B.Tech.	04 (Awarded)	02 (In Progress)

***For Details of Research Guidance Please See Annexure-1.**

Research Publications:

h- Index : **02**

i-10 Index : **00**

Citations : **20**

• International Refereed Journals	06
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• Book Review/ Series / Chapter	01
• Abstracts	-
• National Journals	-
• Proceedings of International and National Conferences	10

For Details of Research Publications Please See Annexure-2.

Short Term Courses Participated: (14)

S. No.	Title	Duration	Institute	Dates
1.	AICTE/MHRD Sponsored Summer School on “Recent Trends in Industrial and Production Engineering”	13 Days	MANIT, Bhopal	30 th Jun to 12 th Jul 2008
2.	AICTE/MHRD Sponsored STTP on “Recent Applications of Thermal Engineering”	12 Days	MANIT, Bhopal	11 th Aug to 22 th Aug 2008
2.	AICTE/MHRD Sponsored STTP on “Advances in Production Technology and Industrial Engineering”	13 Days	MANIT, Bhopal	02 th Feb to 14 th Feb 2009
3.	AICTE Sponsored STTP on “Advanced Engineering Optimization Through Intelligent Techniques”	05 Days	SVNIT, Surat	13 th Jul to 17 th Jul 2009
4.	AICTE Sponsored STTP on “CAE and Design Optimization Using Optistruct”	05 Days	SVNIT, Surat	20 th Jul to 24 th Jul 2009
5.	Traning Programme Organised by Altair and SVNIT, Surat on “CAE Training Programme”	05 Days	SVNIT, Surat	20 th Jul to 24 th Jul 2009
6.	AICTE Sponsored STTP on “Pedagogy and Research Methodology”	05 Days	SVNIT, Surat	03 th Aug to 07 th Aug 2008
7.	AICTE Sponsored STTP on “Metallurgical Aspects of Tribology”	05 Days	SVNIT, Surat	30 th Nov to 4 th Dec 2009
8.	AICTE Sponsored STTP on “Mechanical Drawings Using CAD”	05 Days	SVNIT, Surat	07 th Dec to 11 th Dec 2009
9.	AICTE Sponsored SDP on “Computational Fluid Dynamics (CFD) for Engineers”	05 Days	SVNIT, Surat	01 th Feb to 05 th Feb 2010
10.	TEQIP-II Sponsored STTP on “Recent Advances in Composite Materials (RACM-2013)”	05 days	SVNIT, Surat	24 th Jun to 28 th Jun 2013
11.	TEQIP-II Sponsored Workshop on “Industrial Tribology & Applications”	02 Days	SVNIT, Surat	14 th Nov to 15 th Nov 2014

12.	TEQIP-II Sponsored CEP on “Computational Fluid Dynamics: Theory and Practice”	05 Days	SVNIT, Surat	30 th Jun to 04 th Jul 2014
13.	TEQIP-II Sponsored CEP on “Finite Element Method: A Universal Tool for Engineering Analysis”	05 Days	SVNIT, Surat	02 th Jan to 06 th Jan 2017
14.	TEQIP-II Sponsored STTP on “Basics and Developments in Refrigeration and Air Conditiong (RAC-2017)”	05 Days	SVNIT, Surat	27 th Feb to 03 th Mar 2017

Short Term Courses Organized : (09)

S. No.	Title	Duration	Resource Persons	Sponsors	Dates
1.	Steam Engineering	05 Days	Forbes & Marshall Pvt. Ltd., Pune	Anchor Institute Cell and SVNIT, Surat	28 th Jun to 02 th Jul 2010
2.	Lubrication of Rolling Element Bearing	05 Days	SKF, Pune	Anchor Institute Cell and SVNIT, Surat	25 th May to 29 th May 2011
3.	Welding & Brazing Qualifications-ASME BPVC Section-IX	03 Days	ASME	Anchor Institute Cell and SVNIT, Surat	14 th Sept to 16 th Sept 2011
4.	Power Transmission of Rotating Machinery (WE-202)	01 Day	SKF, Pune	Anchor Institute Cell and SVNIT, Surat	08 th Sept 2011
5.	Basics of Hydraulics	01 Day	SKF, Pune	Anchor Institute Cell and SVNIT, Surat	10 th Jan 2012
6.	Bearing Maintenance Technology	05 Day	SKF, Pune	Anchor Institute Cell and SVNIT, Surat	09 th Oct to 13 th Oct 2012
7.	Fundamentals of Bearing Maintenance	01 Day	SKF, Pune	Anchor Institute Cell and SVNIT, Surat	31 st Jul 2012

8.	Power Transmission Technology	01 Day	SKF, Pune	Anchor Institute Cell and SVNIT, Surat	07 th Aug 2012
9.	Lubrication of Rolling Element Bearing	01 Day	SKF, Pune	Anchor Institute Cell and SVNIT, Surat	12 th Sept 2012

Memberships of Professional Bodies:

1. Life Member, Tribology Society of India, Faridabad (**LM-5051**)
2. Member, The Institution of Engineers (India), Kolkata (**M-137535-5**)
3. Member, Indian Institution of Industrial Engineering, Mumbai (**LM-9369**)

Reviewer / Member of International Journals and Conferences:

- IMechE Part J: Journal of Engineering Tribology, London [**Reviewer**]
- National Conference on Advances in Materials and Product Design (AMPD-2017) [**Reviewer**]
- International Journal of Wind and Renewable Energy [**Editorial Board Member**]
- International Journal of Mechanical Engineering and Research [**Editorial Board Member**]
- National Conference on Advances in Materials and Product Design (AMPD-2010) [**Session Chairman**]

Book Review:

1. Script Review: **Engineering Drawing**, Author- Basant Agrawal and C. M. Agrawal, Publisher: **McGraw Hill Education (India) Private Limited**, NewDelhi [19 July 2012]

List of Research Guidance (M. Tech.):**List of M.Tech. Thesis Supervised**

S. No.	Candidate	Year	Title	Co-Supervisor if any
1.	Rahul Pal	2009-10	Boiler Tube Failure - A Study	----
2.	Amit Dewangan	2009-10	Study of Organic Rankine Cycle and Its Applicability in Thermal Power Plant	----
3.	Ashish Kumar	2010-11	An Analysis of Fuel Cell as an Alternative to Turbine-APU	----
4.	Jayendra B. Kanani	2010-11	Automation in Outer Race of Taper Roller Bearing Manufacturing Using Software Package	----
5.	HareshwarR.Jat	2011-12	Design and Analysis of 150 Tonne Capacity Electric Overhead Travelling Crane	Mr. J.J.Pandya (ESSAR Steel, Surat)
6.	VinayakShinde	2012-13	Analysis of Hydrodynamic Journal Bearing Using Numerical Technique	----
7.	Mane Ravindra M.	2012-13	Analysis of Lubricated Journal Bearing Using COMSOL Software	Dr. A.K.Jana (ChED)
8.	Ganesh Patil	2012-13	Design and Analysis of 63T - 20T Capacity Industrial Crane	Mr. J.J.Pandya (ESSAR Steel, Surat)
9.	Anand D. Kalani	2012-13	Expert Knowledge Base System for Computer Aided Design of Hydrodynamic Journal Bearing	----
10.	Pravin Chandrakar	2013-14	Simulation and Flatness Control of Steel Plates in Hot Rolling Process	----
11.	Rohit S. Kamble	2013-14	Design and Analysis of Universal Shaft Used in Roughing Mill of Steel Plant	Mr. J.J.Pandya (ESSAR Steel, Surat)

12.	Anil Kumar	2013-14	Experimental Investigation of Friction And Wear of Carbon Steel Used In Sugar Mill Rolls	Dr. B.M.Sutaria (MED)
13.	Shayam B. Pandey	2015-16	Analysis of Erosion for Steam Turbine Blades of Homogeneous Materials	-----

List of M.Tech. Thesis Currently Under Progress

S. No.	Candidate	Year	Title	Co-Supervisor if any
1.	Nayanesh S. Gamit	2017-18	Performance Investigation of Some Mechanical Drives for Power Transmission	-----

List of Publications:**International Refereed / Peer Reviewed Journals**

1. **Sandeep Soni** and D. P. Vakharia, A steady state performance analysis of a non-circular cylindrical floating ring bearing, *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*, **2017**, 231(1), pp. 41-56.
2. **Sandeep Soni** and D. P. Vakharia, Dynamic performance analysis of a non-circular cylindrical floating ring bearing, *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*. **2017**, 231(6), pp. 745-765.
3. **Sandeep Soni** and D. P. Vakharia, Performance analysis of finite non-circular floating ring bearing in turbulent flow regime, *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology*. **2017**, 231(7), pp. 869-888.
4. **Sandeep Soni** and D. P. Vakharia, Static analysis of finite hydrodynamic journal bearing in turbulent regime with non-Newtonian lubricant, *Tribology Online*. **2015**, 10(4), pp. 246-261.
5. A Kalani, **Sandeep Soni** and R Jani, Expert knowledge-base system for computer aided design of full hydrodynamic journal bearing, *International Journal of Mechanical Engineering and Technology*, **2015**, 6 (8), pp. 46-58.
6. A Kalani, **Sandeep Soni** and R Jani, New simple equations for designing of finite full journal bearing, *International Journal of Mechanical Engineering and Technology*, **2015**, 6 (4), pp. 134-142.
7. **Sandeep Soni** and D. P. Vakharia, Performance analysis of short journal bearing under thin film lubrication, *ISRN Mechanical Engineering*. **2014**, Article ID 281021, 8 pages.
8. **Sandeep Soni** and R. Mane, Design and modeling of fixture for cylinder liner honing operation, *Global Journal of Researches in Engineering Mechanical & Mechanics*, **2013**, 13(7), pp. 1-7.
9. **Sandeep Soni**, Analysis of liquid droplet erosion for steam turbine blades of composite material, *International Journal of Mechanical Engineering and Robotics Research*, **2012**, 1(3), pp. 214-226.
10. Nishant Kumar, Parikh Harsh, Payoj Gupta, Sagar Chauhan and **Sandeep Soni** , Thermal analysis of vertical axis wind turbine, *International Journal of Wind and Renewable Energy*, **2012**, 1(2), pp. 84-90.
11. **Sandeep Soni** and J. P. Pandey, Erosion behaviour of steam turbine blades of glass-epoxy, *International Journal of Advanced Engineering Technology*, **2011**, 2(2), pp. 110-117.

Research Papers Published / Presented in National and International Conferences

1. **Sandeep Soni** and J. P. Pandey, Static performance of finite circular bearing considering linear turbulence with non-Newtonian lubrication, *NCTEEE'2016, National conference on Tribology: Energy, Environment and Efficiency (TSI and CSIR-AMPRI), Bhopal (India), January 21-22, 2016*, Vol. 1, Issue 1, pp. 23.
2. **Sandeep Soni** and D. P. Vakharia, Analysis of Finite Journal Bearing in Turbulent Regime Considering Non-Newtonian Lubrication, *TURKEYTRIB'2015, 1st International Conference on Tribology, Yildiz Technical University, Istanbul (Turkey), October 07-09, 2015*, Vol. 1, Abstract Ref. No.- BET - 07.
3. Anil Kumar, **Sandeep Soni**, B. M. Sutaria, M. K. Bhatt, D. V. Bhatt, Analysis of tribological parameters on carbon steel used in sugar mill rolls – a case study, *TURKEYTRIB'2015, 1st International Conference on Tribology, Yildiz Technical University, Istanbul (Turkey), October 07-09, 2015*, Vol. 1, Abstract Ref. No.- BET - 06.
4. **Sandeep Soni**, D. P. Vakharia and J. P. Pandey, Effect of journal and ring speed on the performance of floating ring bearing, *ICAMPD-2015, SVNIT, Surat (India), January 10-11, 2015*, Vol. 1, pp. 9-16.
5. **Sandeep Soni**, D. P. Vakharia, Steady state behaviors of an elliptical journal bearing, *ASIATRIB-2014, Agra (India), February 17-20, 2014*, Vol. 1, Abstract Ref. No.- TSI - 914693.
6. **Sandeep Soni** and R. Mane, Analysis of Hydrodynamic Plain Journal Bearing, *COMSOL Conference - 2013, Bangalore (India), October 17-18, 2013*, Vol. 1, pp. 1-5.
7. R. Mane and **Sandeep Soni**, Design and manufacturing with modeling of hydraulic fixture for cylinder liner honing process on honing machine, *CPIE-2013, 3rd International Conference on Production and Industrial Engineering, NIT, Jalandhar (India), March 29-31, 2013*, Vol. 1, pp. 1109-1116.
8. **Sandeep Soni** and R. M. Sarviya, Water droplet erosion of steam turbine blades of glass-epoxy, *NCAMPD-2010, SVNIT, Surat, (India), November 22-23, 2010*, Vol. 1, pp. 1-8.
9. **Sandeep Soni**, R. M. Sarviya and J. P. Pandey, Prediction of erosion behaviour of steam turbine blades of FRC materials, *ICAME-2008, SVNIT, Surat (India), December 15-17, 2008*, Vol. 1, pp. 284-289.
10. **Sandeep Soni** and A. Chaube, Erosion behaviour of Co-Cr alloy coated steam turbine blades, *ICRTME, UEC, Ujjain (India), October 04-06, 2007*, Vol. 2, pp. 50-56.