

## **DR. ANAND Y JOSHI**

Associate Professor

Mechatronics Engg. Dept.

E-mail ID: [anandyjoshi@gmail.com](mailto:anandyjoshi@gmail.com),

[anandjoshi@gcet.ac.in](mailto:anandjoshi@gcet.ac.in)

G H Patel College of Engg & Tech.,  
Vallabh Vidyanagar, Gujarat

### **PERSONAL DETAILS**

**Fathers name :** Yagneshbhai Joshi

**Date of Birth :** 20-07-1978

**Permanent Address:** 3, Safal Bunglows,  
Behind Radha swami pujan  
Bunglows, H M Patel Marg  
Anand, Gujarat, India



**Contact Phone No:** (Mo) +91 9879145910  
(O) +91 2692 231651

### **EDUCATIONAL QUALIFICATIONS**

<b>Educational Qualifications</b>	<b>Board/University</b>	<b>Subjects/Specialization</b>	<b>Year of Passing</b>	<b>Division/Marks in % / CGPA</b>
Ph.D.	Indian Institute of Technology, Roorkee, Uttarakhand	Vibration, Carbon nanotubes, nano sensors		2011
PG (M.E.)	M.S. University of Vadodara, Gujarat	Production Engineering	2002	I <sup>st</sup> / 68%
Graduation (B.E.)	Bhavnagar University, Gujarat	Mechanical Engineering	2000	Dist./ 79.13%

#### **Ph.D. Thesis Title**

“Dynamic Analysis of Single Walled Carbon Nanotube based mass sensor”

### **RESEARCH PUBLICATIONS (Annexure-I): 25**

(i)	Research Highlights (Nature India)	01
(ii)	No. of publications in International Journals:	13
(iii)	No. of publications in National Journals:	01
(iv)	No. of research papers in International Conferences:	06
(v)	No. of research papers in National Conferences:	04

**Total: 25**

## JOB INFORMATION

### TEACHING EXPERIENCE: 10 Years

Name of Employer	Post Held	Period of Employment	Nature of Work
G H Patel College of Engineering & Technology, Vallabh Vidyanagar, Gujarat.	Associate Professor	01/07/2010 to till date	Teaching and Research.
	Assistant Professor (As per 5 <sup>th</sup> pay)	01/07/2007 to 30/06/2010	Teaching and Research.
	Lecturer (As per 5 <sup>th</sup> pay)	19/10/2001 to 30/06/2007	Teaching and Research.

### ADMINISTRATIVE EXPERIENCE

Period	Organization	Designation	Nature of Responsibility
2011 – continued	G H Patel College of Engineering & Technology, Vallabh Vidyanagar, Gujarat.	I/C Training & Placement Officer	Arrange campus for students
2008-2009		Time Table Incharge	Responsible for coordinating preparing time table of faculties of the department and the institute.
2006-2009		Incharge of the Computer Aided Design and Robotics Laboratory	Responsible for conducting workshops for students in the respective subjects.
2004-2007		Industrial visits Incharge	Responsible for arranging visits and project trainings in Industries for students.
2003-2006		Faculty Advisor, ISTE Students Chapter.	Responsible for managing activities of student's under ISTE.
2005		Anti Ragging Squad (Member)	Coordinating the anti ragging activities in the institute
2003-2004		Member of the Credit System	Member of the credit system committee

## SHORT TERM COURSES ATTENDED

Sr. No.	Organized By	Title of the Course	Duration	
			From	To
1	G. H. Patel College of Engg. & Technology , Gujarat	Oil Hydraulics & Pneumatics for Industrial Automation	26/05//03	06/06/03
2	B & B Institute of Technology, Vallabh Vidyanagar, Gujarat	Recent Trends in Manufacturing	01/03/04	12/03/04
3	Saad Vidya Mandal Institute of Technology, Bharuch, Gujarat.	Emerging trends in CAD-CAM	09/05/05	14/05/05
4	Indian Institute of Technology, Bombay.	Micro Machining	02/06/08	07/06/08
3	Indian Institute of Technology, Roorkee	Composites, Design & Manufacturing	7/7/08	11/07/08
4	G. H. Patel College of Engg. & Technology , Gujarat	Concurrent Engineering for Product Design & Development	24/02/09	28/02/09
5	Indian Institute of Technology Roorkee	Sound & Vibration: Fundamentals, Measurement and Diagnostic Analysis	06/07/09	10/07/09
6	Indian Institute of Technology Roorkee	Computer Aided Design in Mechanical Engineering Curriculum	21/12/09	25/12/09
7	Indian Institute of Technology Roorkee	Diagnostics and Condition Monitoring of Rotating Machines	03/04/10	06/04/10
8	Indian Institute of Technology Roorkee	Vibration Condition Monitoring Techniques for Fault Diagnosis	07/03/11	11/03/11

## FOREIGN VISITS

Visited Khon Kaen, Thailand, from July 20 - 26, **2009** to present a paper in *International Conference on Science, Technology & Innovations for Sustainable Well being (STISWB 2009)* organized by Maharakham University, Khon Kaen, Thailand.

## INVITED REVIEWER OF THE FOLLOWING JOURNALS

1. **Journal of Nanotechnology in Engineering & Medicine** : *American Society of Mechanical Engineers (ASME)*
2. **Sensors & Actuators A . Physical** : *Elsevier Publishers*
3. **Mechanics Research Communications** : *Elsevier Publishers*
4. **Sensor Review** : *Emerald Publishers (United Kingdom)*
5. **Mechanics of Advanced Materials and Structures** : *Taylor & Francis*

## MEMBERSHIP OF PROFESSIONAL BODIES/SOCIETIES

Name of Body	Status of Membership: Life/ Annual
American Society of Mechanical Engineers	Annual Membership
American Nano Society	Invited Membership (Full Member)
Tribology Society of India	Life Membership
Indian Society for Technical Education	Life Membership

## CONFERENCES/WORKSHOPS ORGANIZED

Sl. No.	Conference/Workshop	Detail	Year	Period
1	Organized a National Conference on <i>Innovations in Mechatronics Engineering (IME-09)</i>	G H Patel College of Engineering & Technology, Gujarat	2009	13-14 March, 2009

## ACADEMIC ACHIEVEMENTS

1. Received a **Gold Medal** and Certificate for securing the 1<sup>st</sup> position in Mechanical Engineering during Graduation.
2. Received a **Silver Medal** for securing the 2<sup>nd</sup> position amongst all the Engineering Courses run by the University during Graduation.
3. Guided 15 undergraduate projects.

## SELF APPRAISAL

**3 Major Strength:** Punctuality, Self-confidence, and Quick learner

**3 Major Weaknesses:** Introvert personality, Emotional, Sensitive

## Annexure-I

### List of Publications

1. **Research Highlights:** “Nanotubes as Mass Sensors”, [Nature India](#), doi: 10.1038/ nindia. 2011.119, Published: 18<sup>th</sup> August, 2011, *Nature Publishing Group, United Kingdom*.

#### *(i) INTERNATIONAL JOURNALS: 13*

**(2011)**

2. **Anand Y Joshi**, Satish C Sharma, S. P. Harsha, “Nonlinear Dynamic Analysis of Single walled Carbon Nanotube based mass sensor” [ASME Journal of Nanotechnology in Engineering and Medicine](#), (In Press), *American Institute of Physics*.
3. **Anand Y Joshi**, Satish C Sharma, S. P. Harsha, “Zeptogram scale mass sensing using single walled carbon nanotube based bio sensors”, [Sensors & Actuators A. Physical](#), 168, (2), 2011, 275-280, *Elsevier Publishers*, **(Citations : 02) (Impact Factor 1.933)**.
4. **Anand Y Joshi**, S. P. Harsha, Satish C Sharma, “The Effect of Pinhole Defect on Vibration Characteristics of Single Walled Carbon Nanotube”, [Physica E: Low Dimensional systems & Nanostructures](#), 43, (5), 2011, 1040-1045, *Elsevier Publishers*, **(Impact Factor 1.304)**.
5. **Anand Y Joshi**, S. P. Harsha, Satish C Sharma, “Effect of chirality and atomic vacancies on dynamics of nano resonator based on SWCNT”, [Sensor Review](#), 31, (1), 2011, 47-57, *Emerald Publishers, United Kingdom*, **(Impact Factor 0.475). (Citations : 01)**
6. **Anand Y Joshi**, S. P. Harsha, Satish C Sharma, “The Effect of Pinhole Defect on Dynamic Characteristics of Single Walled Carbon Nanotube based Mass sensors”, [Journal of Computational & Theoretical NanoScience](#), 8, (4), 2011, 776-782, *American Scientific Publishers*, **(Impact Factor 0.9) (Citations : 01)**.

**(2010)**

7. **Anand Y Joshi**, S. P. Harsha, Satish C Sharma, “Vibration Signature Analysis of Single Walled Carbon Nanotube Based Nano Mechanical Sensors”, [Physica E: Low Dimensional systems & Nanostructures](#), 42, (8), **2010** 2115-2123, *Elsevier Publishers*, **(Impact Factor 1.304) (Citations : 16) (Cited as one of the Top 25 hottest articles of the Journal for the period January 2011- March 2011).**
8. **Anand Y Joshi**, Aashish Bhatnagar, S. P. Harsha, Satish C Sharma, “An Investigation of Mass Sensitivity of Fixed Free Single Walled Carbon Nanotube (SWCNT) Based Nano Mechanical Sensors”, [Current NanoScience](#), 6, (6), **2010**, 598-603, *Bentham Science Publishers*, **(Impact Factor 1.879).**
9. **Anand Y Joshi**, Aashish Bhatnagar, S. P. Harsha, Satish C Sharma,” Vibration Response Analysis of Doubly Clamped Single Walled Wavy Carbon Nanotube Based Nano Mechanical Sensors” [ASME Journal of Nanotechnology in Engineering and Medicine](#), 1, (3), **2010**, 031004-1-5, *American Institute of Physics*, **(Citations : 04).**
10. **Anand Y Joshi**, S. P. Harsha, Satish C Sharma “Dynamic Analysis of a Clamped Wavy Single Walled Carbon Nanotube based Nano Mechanical Sensors”, [ASME Journal of Nanotechnology in Engineering and Medicine](#), 1, (3), **2010**, 031007-1-7, *American Institute of Physics*, **(Citations : 03).**
11. **Anand Y Joshi**, S. P. Harsha, Satish C Sharma, “Dynamic Behavior of Chiral Fixed Free Single Walled Carbon Nanotube Based Nano Mechanical Mass Sensors due to Atomic Vacancies” [Proceedings of IMECH E, Part N: Journal of Nanoengineering and Nanosystems](#), 223, (2), **2010**, 45-56, *Institution of Mechanical Engineers*, United Kingdom.
12. **Anand Y Joshi**, Satish C Sharma, S. P. Harsha, “Analysis of Crack Propagation in Fixed Free Single Walled Carbon Nanotube under Tensile Loading Using XFEM”, [ASME Journal of Nanotechnology in Engineering and Medicine](#), 1, (4), **2010**, 041008-7, *American Institute of Physics*.

13. **Anand Y Joshi**, Aashish Bhatnagar, S. P. Harsha, Satish C Sharma “Vibratory Analysis of a Doubly Clamped Wavy Single Walled Carbon Nanotube based Nano Mechanical Sensors”, [International Journal of Engineering Science & Technology](#), 2, (5), **2010**, 993-1000, *Engg Journals Publications*, **(Citations : 01)**.

**(2009)**

14. **Anand Y Joshi**, Satish C Sharma, S. P. Harsha, “Vibration Analysis of Pre-Stressed Single Walled CNT Based Mass Sensor”, [International Journal of Electro spun Nano fibers and Applications](#), 2, (3) **2009**, 161-170, *Serials Publications*

*(ii) NATIONAL JOURNALS: 01*

15. Vivek Deshpande, **Anand Y Joshi**, Jayesh Koisha, “Application of Taguchi method for optimization of cutting parameters of Lathe machine to reduce power consumption”, [Industrial Engineering Journal](#), 2,(5) , **2009**, 42-44.

*(iii) INTERNATIONAL CONFERENCES: 06*

16. **Anand Y Joshi**, Satish C Sharma, S.P.Harsha, “Analysis of Single walled Carbon Nanotubes with multiple defects”, [Proceedings of the International conference on Fourth International conference on Structural Stability and Dynamics \(ICSSD-2012\)](#), organized by Department of Structural Engineering, Malaviya National Institute of Technology (MNIT), Jaipur, January 4 – 6, 2012, **(Accepted)**
17. **Anand Y Joshi**, S.P.Harsha, Satish C Sharma “Effect of Chirality on the Vibrational Behavior of Fixed Free Single Walled Carbon Nanotube Based Nano Mechanical Mass Sensors”, [Proceedings of the International Conference on Vibration Engineering & Technology of Machinery VETOMAC VI](#), organized by Indian Institute of Technology, Delhi, December 13-15, **2010**, 304-312.
18. **Anand Y Joshi**, Satish C Sharma, S.P.Harsha, “Mass Sensitivity of Single Walled Carbon Nanotube Based Nano Mechanical Resonators” [Proceedings of the 54th Congress of The Indian Society of Theoretical and Applied Mechanics \(ISTAM\), An International Meet,](#)

organized by Indian Institute of Technology, Kharagpur, at Netaji Subhash Institute of Technology, New Delhi, December 18 – 21, **2009**, 80 – 84.

19. Saurabh P Shah, **Anand Y Joshi**, “Application of Taguchi Method for optimization of parameters used in Electrical Discharge Machining Process”, [Proceedings of the International Conference on Science, Technology & Innovations for Sustainable Well being \(STISWB 2009\)](#) organized by Mahasarakham University, Khon Kaen, Thailand, 23-24 July-**2009**.
20. **Anand Y Joshi**, Ami C Pathak, Unnati A Joshi, “Micro controller based Electronic stability program for a car”, [Proceedings of the International Conference on Advances in Machine Design and Industrial Automation \(ICAMDIA\)](#), organized by College of Engineering, Pune, 10-12 January, **2007**, 245 - 248.
21. Vivek Deshpande, **Anand Y Joshi**, “Application of Ranked positional weight method in Assembly Line Balancing – A case study” [Proceedings of the International Conference on Advances in Machine Design and Industrial Automation \(ICAMDIA\)](#) organized by College of Engineering, Pune, 10-12 January, **2007**, 348-352.

*(IV) NATIONAL CONFERENCES: 04*

22. Ajay M Patel, **Anand Y Joshi**, “Modeling and Analysis of Single Machine Problem to Generate Reachability tree using Petrinet system” [Proceedings of the National Conference on Current Trends in Technology, NUCONE 2007](#), November 29 – December 01, **2007**, organized by Institute of Technology, Nirma University, Ahmedabad, 199 – 202.
23. Unnati A Joshi, **Anand Y Joshi**, “A Genetic Algorithm for planar kinematic chains” [Proceedings of the National Conference on Advances in Manufacturing Technology in the Era of Globalisation \(AMTEG\)](#), jointly organized by the Production Engg Dept, Pune Institute of Tech, and Indian Institution of Production Engineers, between 21 to 22 Jan **2005**, 55 - 58.
24. Ketan Tamboli, **Anand Y Joshi**, “Application of Quality Function Deployment to a Simple Machine” [Proceedings of the National Conference on Product Development with Mechatronic Systems for Global Quality \(PMGQ 2005\)](#) organized by Thiagarajar College of Engg., Madurai, 2-3 May, **2005**, 133 – 135.



25. **Anand Y Joshi**, Unnati A Joshi “Statistical Quality Control of Rollers used in Conveyor systems - A Case Study” Proceedings of the National conference on Computational methods in Mechanical Engineering (COMPUTIME 2005), organized by Osmania University, Hyderabad, September 16 - 17, **2005**, 176 - 179.