

S. P. Harsha
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AREAS OF INTERESTS

Teaching and Research: Vibrations & Control, Nonlinear Dynamics & Chaos, Fault Diagnosis and Prognosis of high speed machinery, CNT based Mass Sensors, Human Vibration

Date of Birth: May 29, 1975

Academic Qualifications

- PostDoc Fellow under US Defense Project (ONR) at Villanova University, Philadelphia, USA, 2006
- PhD (Nonlinear Dynamics & Control) from Mechanical Engineering Department at Birla Institute of Technology and Science, Pilani, India, 2004.
- ME (Mechanical Engineering) from M. B. M. Engineering College, J. N. V. U., Jodhpur, India, 1999.
- BE (Mechanical Engineering) from M. B. M. Engineering College, J. N. V. U., Jodhpur, India, 1996.

Contributions to Professional Societies/Technical Committees (Abroad/India)

- **Organizing Secretary**, National Tribology Conference (NTC), IIT Roorkee, 8-10 Dec., 2011.
- **Chaired sessions** in the symposium on Rotor Dynamics **ASME International Design Engineering Technical Conference (IDETC)** August 30 - September 2, 2009, **San Diego, California, USA**
- **Organizer** the symposium on Rotor Dynamics and Control, 2nd International Conference on Dynamics, Vibration and Control, August 10-15, 2009, **Sichuan, CHINA**
- **Organizer** the symposium on Rotor Dynamics: Nonlinear Analysis, Control & Diagnostics **ASME International Design Engineering Technical Conference (IDETC)** September 4-7, 2007, Rio All-Suite Hotel & Casino, **Las Vegas, Nevada, USA**
- **Chaired** the symposium on Nonlinear Dynamics and Chaos in International Symposium on Nonlinear Dynamics held in **Shanghai, CHINA**, 20-21 Dec., 2005.

International Collaborations

- Collaborative Research in the field of Sound and Vibrations Rs. 5 Cr
Funding Agency: **European Commission Asia Link Project, EC**
Duration: Three years (Completed)
(Participating originations: IITR (coordinator), IITD, KTH Sweden, Loughborough University, UK)
- Study of Low Frequency Vibration in Railway System Rs. 40 Lac
Funding Agency: **Sweden International Developing Agency (SIDA), Sweden**
Duration: Three Years (Completed)
(Participating originations: IITR & KTH Sweden)
- Indo-US Science and Technology Forum (IUSSTF)
Indo-US project on "Elasto hydrodynamic Lubrication Contact" Rs. 60 Lac
Duration 2013-2015 (In progress)
(Participating originations: IIT Roorkee, Northwestern University, Chicago & Akron University, Ohio)

Academic Experience

- **Associate Professor**, Department of Mechanical & Industrial Engineering, IIT Roorkee, Roorkee from October 2012 to till date.
- **Assistant Professor**, Department of Mechanical & Industrial Engineering, IIT Roorkee, Roorkee from May, 2007 to September 2012.
- **Post Doctoral Fellow**, Villanova University, Philadelphia, USA from January, 2006 to April, 2007.
- **Assistant Professor**, Department of Mechanical, BITS, PILANI from January, 2005 to December, 2005.

- **Lecturer**, Department of Mechanical Engineering, BITS PILANI, from **December, 1999 to December, 2004.**

Administrative Experience

- Nucleolus member of DLDP, BITS - Pilani 2000-2005
 - Member of UG/PG Committee (IITR) 2007 - 2009 & 2012-2014
 - Member of Doctoral Research Committee (IITR) 2009 - 2012
 - In-charge of Vibration & Noise Control Lab (IITR) 2008 - till date
 - In-charge of Mechanics of Materials Lab (IITR) 2010 - 2013
 - Task Force Manager 2013 - till date
- (Effective Utilization of Noida Campus, IIT Roorkee Extension Center)

Funded Research Projects:

- Residual Life Prediction and Vibration Analysis of a High Speed Rotor Bearing System
Funding Agency: **ARDB**, DRDO India Rs. 11.64 Lacs
Duration: Three Years (submitted) (**Co-Principal Investigator**)
- Diagnostic and Prognostic Analysis of High Speed Rolling Element Bearings
Funding Agency: **SERC - DST**, India Rs. 31.84 Lacs
Duration: Three Years (Completed) (**Principal Investigator**)

Research Income (since joining the department): Industrial Consultancy

S. No.	Project title	Sponsoring agency	duration	Financial outlay	Summary
1	Design Vetting of Fixture for Road Transport of Stator of 800 MW Turbo-generator.	BHEL - Haridwar	12 Months	9,29,285/-	MID-1023/08-09 10,25,000/-
2	Design Vetting of Erection Base of 800 MW Turbo-generator used for rotor insertion into Stator at Test Bed without Using Crane.	BHEL - Haridwar,	8 Months	6,48,232/-	MID-1031/08-09 7,15,000/-
3	Design Vetting Of Fixture of 28 Axle Rail Wagon	BHEL Haridwar	8 month 15 days	8,70,000/-	MID-1004/09-10 959610
4	Inspection of Ropeway	M/s shail shikhar associates (regd.), Mussoorie	22 days	50,000/-	MID-1001/08-09 56180
5	Maintenance Evaluation of Ropeway	M/s shail shikhar associates (regd.), Mussoorie	15 days	50,000/-	MID-1004/08-09 56180
6	Ropeway Inspection At Mussoorie	Shail shikhar associates mussoorie	1 month	50,934/-	MID-1005/09-10 56180
7	Evaluation Of Rope Performance	Garhwal mandal vikas nigam ltd., dehradun	18 days	90000/-	MID-2007/09-10 99270
8	Inspection Of Ropeway At Mussoorie	M/s shail shikhar associates, Mussoorie	20 days	50000/-	MID-1008/09-10 55150
9	Study And Design Improvement In Ctrb Of Freight Stock Of Indian Railways	RDSO, Lucknow	2 years, 4 months	21,38,713/-	MID-1007/09-10 23,59,000/-
10	SITE Visit and Inspection of KEMPTY FALL, MUSSOORIE	M/s neena contractors & builders pvt. Ltd.,	35 days	90,000	MID-1002/09-10

		Dehradun			99270
11	Site Visit Of Ropeway System At Jhulaghar	M/s shail shikhar associates (regd.), mussoorie	1 months	50,934	MID- 1001/09-10 56180
12	Planning And Design Of Gravity Ropeway In Nagaland.	National horticulture board,ministry of agriculture (goi), ND	7 months	15,00,000	MID- 1015/10-11 1654500
13	Design Of 650 KN Lifting System	Pioneer fabrication (p) ltd., Meerut	25 days	30,734	MID- 1007/10-11 33900
14	Analysis Of 250 Mw Francis Turbine Components For Karcham Wangtoo Hep. (1000 Mw),	M/s jai prakash associates ltd. Noida	2 months	4,80,000	MID- 1010/10-11 529440
15	Study And Root Cause Analysis Of High Vibration Analysis In Circulating Water Pumps 2x250 Mw Thermal Power Plant, Chhabra (Rajasthan),	M/s punj lloyd ltd. Gurgaon,	22 days	7,00,000	MID- 1014/10-11 772100
16	Inspection Of Ropeway System At Gun Hill Point Mussoorie	M/s shail shikhar associates, Mussoorie	25 days	1,01,360	MID- 1022/10-11 111800
17	Inspection Of Ropeway At Mansa Davi, Hardwar	District magistrate Haridwar	8 days	60,000	MID- 1003/10-11 66180
18	Inspection Of Kempty Fall Ropeway At Mussoorie	M/s neena contractors and builders pvt. Ltd., Dehradun	11 days	91,000	MID- 1004/10-11 100373
19	Site Visit And Discussion At ONGC	ONGC LTD. VADODRA	3 months	15,000	MID- 1005/10-11 16500
20	Vetting Of Design For Maa Chandidevi Ropeway Hanger	M/s usha breco ltd., regional office Haridwar	2 months	1,80,000	MID- 1009/10-11 198540
21	Inspection Of Ropeway At Mussoorie	M/s shail shikhar associates, Mussoorie	10 days	78,975	MID- 1011/10-11 87110
22	Vibration Analysis Of Two Components Of Eicher Tractors	Eicher tractors ltd. Bhopal	3.5 months	4,00,000	MID- 1012/10-11 441200
23	Inspection Of Ropeway System At Kempty Fall, Mussoorie	M/s neena contractors & builders pvt. Ltd. Dehradun	1.5 months	1,01,360	MID- 1021/10-11 111800
24	Feasibility Study For Use Of Ptef (Teflon) Multiball Bearings Support For Condensor.	BHEL, Haridwar	7 months 15 days	8,50,000	MID- 1015/11-12 937550
25	Design Of Dewatering And Drainage System For Flood Control At Tehri Dams.(In Progress)	THDC LTD.	1 year 10 months	7,24,801	MID- 1015/11-12 799456
26	Root Causes Analysis Of Shaft Failure Of Ropeway	Ex. Officer office of nagar palika parishad Mussoorie	10 days	1,01,360	MID- 1004/11-12 111800
27	Inspection of Over All Operation Of Rope Way	M/s shail shikhar associates ropeway mussoorie, Dehradun	15 days	71,000	MID- 1010/11-12 78313
28	Inspection of Ropeway System At Kempty Mussoorie	M/s neena contractors & builders pvt. Ltd., Dehradun	10 days	1,01,325	MID- 1003/12-13 113860
29	Inspection of Ropeway System At Gun Hill Point, Mussoorie	M/s shail shikhar associates ropeway, Mussoorie	1 months	1,01,015	MID- 1001/12-13 111420
30	Inspection of Ropeway System At Gun Hill Point, Mussoorie	M/s shail shikhar associates , ropeway	25 days	1,11,250	MID- 6002/12-13

31	Computation And Validation Of Lube Oil And Jacking Oil Flows/Losses As Well As Stiffness And Damping Coefficients In Hydrodynamic Journal Bearings Of Steam Turbine.	jhulaghar Mussoorie BHEL Hardwar	8 months	12,50000	125000 MID-6021/12-13 1404500
32	Inspection Of Ropeway System St Gun Hill Point, Mussoorie	M/s shail shikhar associates (regd.), Mussoorie	2 months	109676	MID-6001/13-14 123232
33	Inspection Of Ropeway System At Kampti Fall, Mussoorie	M/s neena contractors & builders pvt. Ltd., Dehradun	45 days	109676	MID-6002/13-14 123232
34	Design Vetting Of Column Bearing Housing	ISGEC, Yamunagar	1 month 10 days	300000	MID-6004/13-14 337080
35	Inspection Of Ropeway System At Gun Hill, Mussoorie	M/s Shail Shikhar Associates (regd.), Mussoorie		109676	MID-6018/13-14 123232
36	Performance Enhancement Of Multipurpose High Low Pressure- Fire Pump (In Progress)	Shri ganesh fire equipments(p) ltd., New Delhi	9 months	825000	MID-6016/13-14 926970
37	Design of ropes and gear system for Ropeway	Uttarakhand Irrigation Dept., Dehradun	2 Months	1,00,000/-	MID - 6023/13-14 1,12,360/-
38	Design and Development of Multiplate Clutch for High Speed Engines (In Progress)	M/s Makino Pvt Ltd, Noida	6 Months	4,00,000/-	MID - 6034/13-14
39	Study & Analysis of Drive Shaft Assembly of Passenger Ropeway at Chandidevi(In Progress)	M/s Usha Breco Pvt Ltd., Haridwar	6Months	5,00,000/-	MID - 6037 13-14 5,61,800/-

No. of grants applied for/yr (academic year) Approx. 1 Cr. 50 Lac

2012-13	2011-12	2010-11	2009-10	2008-09
15,50,000/-	18,50,000/-	36,50,000/-	60,00,000/-	18, 50,000/-

Foreign Visits

- **Visited Northwestern Univ. Chicago & Akron Univ. OH, USA**, June 17 - July 5, 2014 for IUSSTF meeting and collaborative research work
- **Visited Hongkong**, April'14 for presenting research paper in Nanotechnology materials and Devices Conf.
- **Visited Chicago USA**, Oct 2012 for presenting research paper in Int. Conf. and Expo on Material Science, Oct. 22-24, 2012 at Doubly Tree Hotel, Chicago, USA
- **Visited Washington DC, USA** August, 2011 for presenting a research paper and chairing sessions in ASME International Design Engineering Technical Conference (IDETC) August 28 - 31, 2011, Washington DC, USA.
- **Visited San Diego, USA** August, 2009 for presenting a research paper and chairing sessions in ASME International Design Engineering Technical Conference (IDETC) August 30 - Sept. 2, 2009, San Diego CA, USA.
- **Visited Las Vegas USA** for the symposium on Rotor Dynamics: Nonlinear Analysis, Control & Diagnostics **ASME International Design Engineering Technical Conference (IDETC)** September 4-7, 2007, Rio All-Suite Hotel & Casino, **Las Vegas**, Nevada, USA
- **Visited London, UK**, August 2007 to attend 4th Consortium Meeting of EU-Asia Link Program on Sound and Vibration.
- **Visited Amsterdam** (August 17-19, 2008) in to attend 6th Consortium Meeting of EU-Asia Link Program on Sound and Vibration.
- **Visited Stockholm** (August 20-24, 2008) in to attend 6th Consortium Meeting of EU-Asia Link Program on Sound and Vibration.
- **Visited Seoul, Korea**, May 2007 for presenting a research paper on Railway research at World Congress on Railway Research, 2008.

- **Visited Virginia Tech Blacksburg**, Virginia, USA June, 2008 for presenting a research paper in Int. Conf. on Nonlinear Dynamics.
- **Visited Virginia Tech Blacksburg Blacksburg**, Virginia, USA August, 2006 for presenting a research paper in Int. Conf. on Nonlinear Dynamics.
- **Visited Shanghai**, China, Dec 2005 for Chairing the sessions in International Conf. on Nonlinear Dynamic.

Supervision of Ph. D Theses:

Ph. D – 07 Awarded, 02 Submitted and 02 in progress

LIST OF Ph.D. THESIS (Completed)

1. Title : **A Theoretical and Experimental Study of Nonlinear Aspects of High Speed Rolling Element Bearings**
Candidate - Sanjay K. Upadhyay (**QIP Scheme**)
Co – Supervisor - Dr. S.C. Jain
Year - **2007-2009 (Completed)**
Remarks: - Associate Prof., MIED, IIT Roorkee
2. Title : **Fault Diagnosis of High Speed Rotor Bearing Systems**
Candidate - Pavan K. Kankar (**MHRD Scheme**)
Co – Supervisor - Dr. S.C. Sharma
Year - **2009-2011 (Completed)**
Remarks: - Assistant Prof., Mech. Engg Dept., IIITDM Jabalpur
3. Title : **Effect of Whole Body Vibration on Activity Comfort**
Candidate - Mahesh Bhiwapurkar (**SRF under Euro Asia Link project**)
Co – Supervisor - Dr. V. Huzur Saran
Year - **2009-2011 (Completed)**
Remarks: - Prof. & Head, OP Jindal College, Raipur
4. Title: **Dynamic Analysis of Carbon Nanotube Based Mass Sensors.**
Candidate - Anand Y. Joshi (**QIP Scheme**)
Co-Supervisor - Dr. S. C. Sharma
Year - **2009-2011 (Completed)**
Remarks: - Prof & HOD, Mechatr. Dept., GH Patel College, Anand
5. Title: **CNT Reinforce Nano-composites: Modeling, Evaluation of Mechanical Properties and Defects Analysis**
Candidate - Ms Unnati A. Pandya (**QIP Scheme**)
Co-Supervisor - Dr. S. C. Sharma
Year - **2010-2012 (Completed)**
Remarks: - Assoc. Prof., Mech. Engg Dept., ADIT College, Anand
6. Title: **Dynamic Analysis of Inflatable Membrane Structure For Space Application**
Candidate - Sachin G (**MHRD Scheme**)
Co-Supervisor - Dr. Sanjay H Upadhyay
Year - **2011 – 2013 (Completed)**
Remarks: - Asst. Prof. NIT Silchar
7. Title: **Nonlinear Analysis of High Speed Rolling Element Bearings Due to Various Defects**
Candidate - Divyang Pandya (**QIP Scheme**)
Co-Supervisor - Dr. Sanjay H Upadhyay
Year - **2011 – 2013 (Completed)**
Remarks: - Assoc. Prof., Mech. Engg Dept., LD College, Ahmadabad
8. Title: **Effect of Low Frequency Vibration on Human Comfort**
Candidate - A. S. Prasanth (**MHRD Scheme**)
Co-Supervisor - Dr. V. Huzur Saran
Year - **2009 – 2014 (Submitted)**
Remarks: - Manipal Institute of Technology, Manipal (Karnataka)
9. Title: **Nonlinear Dynamics of Rail Wheel Contact of Freight Wagons**
Candidate - Nagvendra K (**MHRD Scheme/RDSO Lucknow**)
Co-Supervisor - Dr. SC Sharma
Year - **2011 – 2014 (Submitted)**
Remarks: - Postdoc at Hong Kong Polytechnic University

LIST OF Ph.D. THESIS (Currently Under Progress)

10. Title: **Study and Analysis of failure of Line Contact Element under Micro-EHL conditions**
Candidate - G. D. Thakre (Scientist at IIP Dehradun & IUSSTF project)
Co-Supervisor - Dr. SC Sharma
Year - 2011 -
11. Title: **Design Analysis of Multiwalled CNT Reinforced Polymer based Nano-composites**
Candidate - Anand Gupta (Scientist at IRDE, Dehradun)
Co-Supervisor - -----
Year - 2011 -

Supervision of M. Tech Dissertations:

39

M. Tech - 39 (Completed), 04 (In progress)

S. No.	Name	Co-Guide	Year
1	G Pavan Kumar	-	2005
2	Ashok Boda	Dr. IV Singh	2008
3	G Lokeshwari	Dr. IV Singh	2008
4	Smith Topnov Salvo	Dr. VH Saran	2008
5	Vikrant Bende (DRDO Pune)	Dr. PM Pathak	2008
6	Ravi Kant Mittal	Dr. SC Sharma	2009
7	Pushpendra Rana	Dr. SC Jain	2009
8	Mahendra Jangid	Dr. SC Sharma	2009
9	Abhijit Deokar	Dr. PM Pathak	2009
10	Phool Singh	Dr. VH Saran	2010
11	Kalyan Manohar B	Dr. SC Sharma	2010
12	Ashish Bhatanagar	Dr. SC Sharma	2010
13	Desta Milk (Ethiopia)	Dr. VH Saran	2010
14	Sanjay Bhinse	Dr. SC Jain	2010
15	Priti Joshi	Dr. SC Sharma	2011
16	Kuldeep Gupta	Dr. SC Sharma	2011
17	J. Ganesh	Dr. NK Mehta	2011
18	Amar Kishore	Dr. VH Saran	2011
19	Sabbir Ahmad	Dr. VH Saran	2011
20	Ankit Gupta	Dr. SC Sharma	2012
21	Alok Mishra	Dr. SH Upadhyay	2012
22	Ganesh Vinayak	Dr. SH Upadhyay	2012
23	Pankaj K Bhardwaj	Dr. SC Sharma	2012
24	Prakash Kumar	Dr. VH Saran	2012
25	Dipen Saradara	Dr. SH Upadhyay	2012
26	Himanshu Yadav	Dr. SH Upadhyay	2013
27	Surinder Kumar	-----	2013
28	Prabhat Kumar Tripathi	Dr. SH Upadhyay	2013

29	Tony Thomas	Dr. SC Sharma	2013
30	Mulu Girmay	Dr. SC Sharma	2013
31	Saurabh Chauhan	Dr. SC Sharma	2013
32	Nimesh K Patel	Dr. SH Upadhyay	2013
33	Mh. Waqar Khan	Dr. SH Upadhyay	2013
34	Lokesh Kumar	Dr. SH Upadhyay	2014
35	Paras Ram (DRDO, Pune)	Dr. SH Upadhyay	2014
36	K. Sanket Pawar	Dr. SC Sharma	2014
37	Akshay V. Salunke	Dr. SH Upadhyay	2014
38	Asheesh Kumar	Dr. SC Sharma	2014
39	Akshay Kumar	Dr. SH Upadhyay	2014
40	Shashank Kedare	-----	Pursuing
41	Asish K Pandey	-----	Pursuing
42	Shurbhi Bhagwat	-----	Pursuing
43	Abhishek Rawat	-----	Pursuing

Supervision of B. Tech Dissertations:

26 (groups)

Short Term Organized:

- August 11 - 15, 2007 - Role of Sound and Vibrations in Industries by European Comm., at Continuing Education Center IITR
- Dec 03 - 06, 2008 - Bearing Technology & Maintenance, Continuing Education Center, at IITR
- Dec. 15 - 17, 2008 - Vibration and Noise: Issues and Challenges by SIDA & EC at Jodhpur
- Dec. 13 - 14, 2009 - Maintenance Systems: Proactive to Predictive by SIDA, Sweden at IITD
- July 6 - 10, 2009 - Sound and Vibration: Fundamentals, Measurement and Diagnostic Analysis at Continuing Education Center IITR
- April 3-6, 2010 Diagnostics and Condition Monitoring of Rotating Machines Sponsored by RDSO, NTPC, THDC, CEC, at IIT Roorkee
- March 7-11, 2011 Vibration Condition Monitoring Techniques for fault Diagnosis Continuing Education Center, Indian Institute of Technology Roorkee
- June 5-9, 2011 Dynamics and Controls of Mechanical Systems” QIP, IIT Roorkee
- Dec. 12 - 14, 2012 Noise Monitoring and Control Technique sponsored by Pollution Control Board of India organized at IIT Roorkee
- Dec. 30 - Jan. 03, 2014 Modeling and Simulation of Dynamical Systems QIP, IIT Roorkee

Courses Taught (at BITS - Pilani & IIT Roorkee)

- Engineering Graphics/ Engineering Thermodynamics (UG)
- Mechanics of Solids/ Advanced Mechanics of Solids (UG)
- Theory of Machines/Dynamics of Machines (UG)
- Fundamentals of Sound & Vibration (UG, Institute Electives)
- Dynamics of Mechanical Systems (PG)
- Advanced Mechanical Vibrations (PG)

Courses Developed under NPTEL (MHRD Scheme):

- Video Lectures on “**Solid Mechanics**” course (40 lectures) delivered and uploaded on web by IITM under the NPTEL scheme.
- Web and Video Lecture on “**Vibration Control**” course (40 lectures)) delivered and uploaded on web by IITM under the NPTEL scheme.
- Video Lecture on “**Dynamics of Mechanical Systems**” course (40 lectures) is in process under the NPTEL

Research Publications:

➤ International Journals	96*
➤ National Journal	02
➤ Book Chapter	01
➤ International/ National Conference	81
➤ Total	= 180

* Papers published in the following journals:

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| <ul style="list-style-type: none"> ➤ Journal of Sound & Vibration (Elsevier) ➤ ASME Jr. of Dynamic Systems, Measurements & Control ➤ Int. Journal of Non Sc & Num Simulations ➤ Mechanical Systems & Signal Processing (Elsevier) ➤ Int. Journal of Mechanical Sc. (Elsevier) ➤ Chaos, Soliton and Fractals (Elsevier) ➤ Applied Soft Computing (Elsevier) ➤ Physica E (Elsevier) ➤ European Journal of Mechanics / A Solids (Elsevier) ➤ Expert Systems (Elsevier) ➤ Int. Journal Nonlinear Dynamics (Springer) ➤ Journal of Vibration & Control (SAGE) | <ul style="list-style-type: none"> ➤ ASME Jr. of Nanotechnology in Engineering and Medicine ➤ Nuro-Computing (Elsevier) ➤ Sensors Reviews (Emerald) ➤ Int. Journal of Acoustics & Vibration ➤ IMechE Proc. of Multi-body Dynamics, Part K ➤ Industrial Health ➤ ASME Jr. of Computational and Nonlinear Dynamics ➤ Current Nano science (Bentham Sc. Pub.) ➤ Int. Journal of Computational and Theoretical Nano Science (American Sc. Pub.) ➤ Nano Journal (World Scientific press) ➤ IET Nano-biotechnology (IEEE) ➤ Composite -part B (Elsevier) ➤ Engineering Failure Analysis ((Elsevier)) |
|--|---|

INTERNATIONAL JOURNAL PAPERS:

(Full Papers Published)

(2003)

1. **Harsha, S. P.,** Sandeep K. and Prakash R, (2003) "The Effect of Speed of Balanced Rotor on Nonlinear Vibrations Associated With Ball Bearings." **International Journal of Mechanical Sciences**, Vol. 45, No. 4, pp 725 – 740. *Elsevier publishers* (Impact Factor 1.288) (Citation: 82)
2. **Harsha, S. P.,** Sandeep K. and Prakash R, (2003) "Effects of Preload and Number of Balls on Nonlinear Dynamic Behavior of Ball Bearing System." **International Journal of Nonlinear Sciences and Numerical Simulation**, Vol. 4, No. 3, pp. 265 – 279. (Impact Factor 5.099) (Citation: 16)
3. **Harsha, S. P.,** Sandeep K. and Prakash R, (2003) "Quasi-periodic, Sub-harmonic and Chaotic Motions of a Rotor Bearing System." **International Journal of Nonlinear Sciences and Numerical Simulation**, Vol. 4, No. 4, pp. 361 – 372. (Impact Factor 5.099) (Citation: 5)
4. **Harsha, S. P.,** Sandeep K. and Prakash R, (2003) "Nonlinear Dynamic Behaviors of High Speed Rotor Supported By Rolling Element Bearings." **International Journal of Applied Mechanics and Engineering**, Vol. 8, No. 4, pp. 705 – 720.

(2004)

5. **Harsha, S. P.,** Sandeep K. and Prakash R, (2004) "Nonlinear Dynamic Behaviors of Rolling Element Bearings Due to Surface Waviness." **Journal of Sound and Vibration**, Vol. 272, No. 3-5, pp. 557 – 580. *Elsevier publishers* (Impact Factor 1.414) (Citation: 71)
6. **Harsha, S. P.,** Sandeep K. and Prakash R, (2004) "Nonlinear Dynamic Response of a Rotor Bearing System Due to Surface Waviness." **Nonlinear Dynamics, An International Journal of Nonlinear Dynamics and Chaos in Engineering Systems**, Vol. 37, pp. 91 – 114. *Springer publisher* (Impact Factor 1.658) (Citation:5)
7. **Harsha, S. P.,** Kankar P. K. (2004) "Stability Analysis of Rotor Bearing System Due to Surface Waviness and Number of Balls." **International Journal of Mechanical Sciences**, Vol. 46, No. 7, pp. 1055 – 1079. *Elsevier publishers* (Impact Factor 1.288) (Citation: 72)
8. **Harsha, S. P.,** (2004) "The Effect of Ball Size Variations on Nonlinear Vibration Associated with Ball Bearings." **IMECHE, Journal of Multi Body Dynamics (Part-K)**, Vol. 218, No. 4, pp. 191-210. (Impact Factor 0.35) (Citation: 03)

(2005)

9. **Harsha, S. P.,** (2005) "Nonlinear Dynamic Response of a Balanced Rotor Supported on Rolling Element Bearing." **Mechanical Systems and Signal Processing**, Vol. 19, No. 3, pp. 551 – 578. *Elsevier publishers* (Impact Factor 2.075) (Citation: 32)
10. **Harsha, S. P.,** Kankar P. K. (2005) "Nonlinear Dynamic Analysis of a Complex Rotor Bearing System." **International Journal of Acoustics and Vibration**, Vol. 10, No. 1, pp. 33 – 39. (Impact Factor 0.291)
11. **Harsha, S. P.,** (2005) "Nonlinear Dynamic Response of an Unbalanced Rotor Supported on Roller Bearing." **Chaos, Solitons and Fractals**, The interdisciplinary journal of Nonlinear Science, and Non-equilibrium and Complex Phenomena, Vol. 26, No. 1, pp. 47 – 66. *Elsevier publishers* (Impact Factor 3.1) (Citation: 25).
12. **Harsha, S. P.,** Kankar P. K. and Purohit R. K., (2005) "Nonlinear Dynamic Analysis of High Speed Rolling Element Bearings Due to Cage Run-out." **Computer Assisted Mechanics and Engineering Sciences**, Vol. 12, No. 1, pp. 1-15.

(2006)

13. **Harsha, S. P.** and Nataraj C., (2006) "Nonlinear Dynamic Analysis of an Unbalanced Rotor Supported by High-Speed Rolling Element Bearings with Effect of Surface Waviness." **International Journal of Nonlinear Sciences and Numerical Simulation**, Vol. 7, No. 2, pp. 5-9. (Impact Factor 5.099)
14. **Harsha, S. P.** and Nataraj C. (2006) "Nonlinear Dynamic Analysis of a Rotor Bearing System Due to Distributed Defects Using Factorial Design of Experiments." **International Journal of Applied Mechanics and Engineering**, Vol. 12, pp. 1- 12.
15. **Harsha, S. P.**, Kankar P. K. and Nataraj C. (2006) "Nonlinear Vibrations Signatures of a Rotor Bearing System Due to the Effect Ball Waviness." **International Journal of Acoustics and Vibration**, Vol. 11, No. 2, pp. 9-18. (Impact Factor 0.291)
16. **Harsha, S. P.**, (2006) "Nonlinear Dynamic Analysis of Rolling Element Bearings Due to Cage Run-out and Number of Balls." **Journal of Sound and Vibration**, Vol. 289, pp. 360-381. *Elsevier publishers* (Impact Factor 1.414) (Citation: 4)
17. **Harsha, S. P.**, (2006) "Nonlinear Dynamic Analysis of High-Speed Rotor Supported by Rolling Bearing Vibrations." **Journal of Sound and Vibration**, Vol. 290, pp. 65-100. *Elsevier publishers* (Impact Factor 1.414) (Citation: 15)
18. **Harsha, S. P.**, (2006) "Roller Bearing Vibrations – The Effect of Surface Waviness and Radial Internal Clearance." **International Journal of Computational Methods in Engineering Science and Mechanics**, Vol. 7, No. 2, pp. 91-111. *Taylor & Francis publication*.
19. **Harsha, S. P.**, (2006) "Nonlinear Dynamic Analysis of a Balanced Rotor Supported on Rolling Element Bearings Due to Clearance Effect." **Mechanism and Machines Theory**, Vol. 41, No. 6, pp. 688-706. *Elsevier publishers* (Impact Factor 1.099) (Citation: 14)

(2007)

20. **Harsha, S. P.**, and Nataraj C. (2007) "Intermittent Chaotic Behavior of Unmanned Surface Vehicles (USV) due the Rudder Frequencies and amplitudes." **Transaction of Nonlinear Science and Complexity (NSC)**, Vol. 4, pp 135 - 142, World Scientific publication, USA
21. C. Nataraj and **Harsha, S. P.**, (2007) "Nonlinear Vibration Analysis of an Unbalanced Rotor on Rolling Element Bearing Due to Cage Run-out." **Transaction of Nonlinear Science and Complexity (NSC)**, Vol. 2, pp 213-221, World Scientific publication, USA.

(2008)

22. C. Nataraj and **Harsha, S. P.**, (2008) "The Effect of Bearing Cage Run-out on Nonlinear Dynamics of Rotating Shaft." **Communications in Nonlinear Science and Numerical Simulation**, Vol. 13, pp. 822 - 838. *Elsevier publishers* (Citation: 30)
23. Upadhyay S.H., Jain S.C and **Harsha, S. P.**, (2008) "Nonlinear Vibration Signature Analysis of High Speed Rotor Due to Defects of Rolling Element" **Advances in Theoretical and Applied Mechanics** Vol. 1 (7), pp 301-314. (Citation: 1)

(2009)

24. Kankar P.K., **Harsha, S. P.**, Kumar Pradeep and Sharma Satish C., "Fault Diagnosis of a Rotor Bearing System using Response Surface Method", **European Journal of Mechanics / A Solids**, Vol. 28, 2009, pp. 841-857, Elsevier publishers (Impact Factor 1.815) (Citation: 14).
25. Upadhyay S.H. Jain S. C. and **Harsha, S. P.** (2009) "Chaos and Nonlinear Dynamic Analysis of High-Speed Rolling Element Bearings Due to Varying Number of Rolling Elements" **International Journal of Nonlinear Sciences and Numerical Simulation** Vol. 10 (3), pp 323 - 332. (Impact Factor 5.099)

26. Upadhyay S.H., Jain S.C and **Harsha, S. P.** (2009) “Nonlinear Vibration Signature Analysis of High Speed Rotating Shaft due to Ball Size Variations and Varying Number of Balls” **Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics (IMEchE)** Vol. 223, pp 83-105. (**Impact Factor 0.37**) (**Citation: 1**)
27. Upadhyay S.H., Jain S.C and **Harsha, S. P.** (2009) “Vibration Signature Analysis of High Speed Unbalanced Rotor Supported by Rolling Element Bearings due to Off-sized Rolling Elements” **International Journal of Acoustics and Vibration**, Vol. 14(3), pp 163-171. (**Impact Factor 0.291**)
28. Upadhyay S.H., **Harsha, S. P.** and Jain S.C. (2009) “Nonlinear Dynamics of High Speed Unbalanced Rotor Supported on Rolling Element Bearings” **International Journal of Design Engineering** Vol. 2 (2), pp 191-204. **Inder science publications**
29. Upadhyay S.H., **Harsha, S. P.** and Jain S.C. (2009) “Nonlinear Dynamic Response Analysis of a High Speed Rotor Supported by Rolling Element Bearings due to Waviness” **The International Journal of Mathematical Modeling, Simulation and Applications (IJMMSA)** Vol. 2 (3), pp 323-333.
30. Anand Y Joshi, Satish C Sharma, **Harsha, S. P.** (2009) “Vibration Analysis of Pre-Stressed Single Walled CNT Based Mass Sensor”, **International Journal of Electro spun Nano fibers and Applications**, 2, (3), 161-170.
(2010)
31. Upadhyay S.H., Jain S.C and **Harsha, S. P.** “Analysis of Nonlinear Phenomena in High Speed Ball Bearing System due to Radial Clearance and Unbalanced Rotor Effects” **Journal of Vibration and Control**, Vol. 16(1), 2010, pp 65-88. SAGE publishers (**Impact Factor 0.895**)
32. Anand Y Joshi, **Harsha, S. P.**, 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 1.17**) (**Citation: 52**)
33. Anand Y Joshi, Aashish Bhatnagar, **Harsha, S. P.**, 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.
34. Anand Y Joshi, Aashish Bhatnagar, **Harsha, S. P.**, Satish C Sharma, “Vibration Response Analysis of Doubly Clamped Single Walled Wavy Carbon Nanotube Based Nano Mechanical Sensors” **ASME Transactions, Journal of Nanotechnology in Engineering and Medicine**, 1, (3), 2010, 031004-1-5. (**Citation: 1**)
35. Anand Y Joshi, **Harsha, S. P.**, Satish C Sharma “Dynamic Analysis of a Clamped Wavy Single Walled Carbon Nanotube based Nano Mechanical Sensors”, **ASME Transactions, Journal of Nanotechnology in Engineering and Medicine** 1, (3), 2010, 031007-1-7 (**Citation: 1**)
36. Anand Y Joshi, **Harsha, S. P.**, 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**, 224, (2), 2010, 45-56. (**Impact Factor 0.6**)
37. Anand Y Joshi, Satish C Sharma, **Harsha, S. P.**, “Analysis of Crack Propagation in Fixed Free Single Walled Carbon Nanotube under Tensile Loading Using XFEM”, **ASME Transactions, Journal of Nanotechnology in Engineering and Medicine**, 1, (4), 2010, 041008-7.
38. Anand Y Joshi, Aashish Bhatnagar, **Harsha, S. P.**, 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. (**Impact Factor 1.472**) Bentham Science Publication

39. Unnati A Joshi, Preeti Joshi, **Harsha, S. P.**, Satish C Sharma, (2010) "Evaluation of the Mechanical Properties of Carbon Nanotube Based Composites by Finite Element Analysis", **International Journal of Engineering Science & Technology**, 2(5), 1098-1107.
40. Unnati A Joshi, Preeti Joshi, **Harsha, S. P.**, Satish C Sharma, (2010) "Evaluation of the Mechanical Properties of CNT based Composites Using Hexagonal RVE," **ASME Transactions, Journal of Nanotechnology in Engineering & Medicine**, 1,3, 031006-1-7.
41. Unnati A Joshi, Satish C Sharma, **Harsha S. P.**, (2010) "Effects of Pinhole defects on the elasticity of Carbon Nanotube based Nano-Composites" **ASME Transactions, Journal of Nanotechnology in Engineering & Medicine**, 2 (1), 011003-1-7.
42. Bhavaraju Kalyan M., Kankar P.K., Sharma Satish C. and **Harsha, S. P.**, (2010) "A Comparative Study on Bearings Faults Classification by Artificial Neural Networks and Self-Organizing Maps using Wavelets", **International Journal of Engineering Science and Technology**, Vol. 2(5), pp. 1001-1008, Engg Journals Publications.
43. Khandelwal M., Kankar P.K. and **Harsha, S. P.** (2010) "Evaluation and prediction of blast induced ground vibration using support vector machine", **Mining Science and Technology**, Vol. 20(1), pp. 64-70, Elsevier publishers.
44. M.K. Bhiwapurkar, V.H. Saran, **Harsha, S. P.**, V.K. Goel, Mats Berg, (2010) "Influence of mono-axis random vibration on reading activity", **Industrial Health**, Vol. 48, Number 5, (**Impact Factor 1.4**).
45. M.K. Bhiwapurkar, V.H. Saran, **Harsha, S. P.** (2010) "Effect of multi-axis whole body vibration exposures and subject postures on typing performance", **International Journal of Engineering Science and Technology**, Vol. 2(8), 3614-3620.
46. M. K. Bhiwapurkar, V.H. Saran, **Harsha S. P.**, (2010) Effect of multi axis vibration and subject posture on sketching distortion, **International Journal of Engineering Science and Technology, International Journal of Engineering, Science and Technology (Multicraft Pub.- Italy)**, Vol. 2 (12), pp 14-24. (2011)
47. Anand Y Joshi, **Harsha, S. P.**, Satish C Sharma, (2011) "Effect of chirality and atomic vacancies on dynamics of nano resonator based on SWCNT", **Sensor Review**, 31, (1), 47-57. (**Impact Factor 0.571**) (Emerald Publications)
48. Anand Y Joshi, **Harsha, S. P.**, Satish C Sharma, (2011) "The Effect of Pinhole Defect on Dynamic Characteristics of Single Walled Carbon Nanotube based Mass sensors", **Journal of Computational & Theoretical NanoScience**, 8(4). (**Impact Factor 0.89**) (American Scientific Publications)
49. Kankar P.K., Sharma Satish C. and **Harsha, S. P.**, (2011) "Fault Diagnosis of Ball Bearings Using Machine Learning Methods", **Expert Systems with Applications**, Vol. 38, No. 3, pp. 1876-1886, Elsevier publishers (**Impact Factor 2.908**).
50. Kankar P.K., Sharma Satish C. and Harsha S.P. (2011) "Fault Diagnosis of High Speed Rolling Element Bearings Due to Localized Defects using Response Surface Method", **ASME Journal of Dynamic Systems, Measurement and Control**, Vol. 133, No. 2, pp. 031007 (1-14) (**Impact Factor 0.84**).
51. Kankar P.K., Sharma Satish C. and **Harsha S.P.**, (2011) "Fault Diagnosis of Ball Bearings Using Continuous Wavelet Transform", **Applied Soft Computing**, Vol. 11, No. 2, pp. 2300-2312, Elsevier publishers (**Impact Factor 2.415**).

52. M.K. Bhiwapurkar, V.H. Saran, **Harsha, S. P.**, V.K. Goel, Mats Berg, "Effect of magnitudes and directions (mono-axis and multi-axis) of whole body vibration exposures and subjects postures on the sketching performance", **Proceedings of the Institution of Mechanical Engineers, Part F, Journal of Rail and Rapid Transit**, 2011, Vol. 225, pp. 71-83 (**Impact Factor 2.415**)..
53. Kankar P.K., Sharma Satish C. and Harsha S.P., "Rolling Element Bearing Fault Diagnosis using Autocorrelation and Continuous Wavelet Transform", **Journal of Vibration and Control**, In press, SAGE publications (**Impact Factor 0.896**).
54. Kankar P.K., Sharma Satish C. and **Harsha S.P.**, "Rolling Element Bearing Fault Diagnosis Using Wavelet Transform", **Neurocomputing, Accepted**, Vol. 74, pp. 1638 - 1645, 2011, Elsevier publishers (**Impact Factor 1.44**).
55. M. K. Bhiwapurkar, V.H. Saran, **Harsha, S. P.**, Quantitative evaluation of distortion in sketching under mono and dual axis whole body vibration, **Industrial Health**, doi:10.2486/indhealth.MS1234 (**Impact Factor 1.44**).
56. Desta Milk, V.H. Saran, **Harsha, S. P.**, Effects of Inter-Subject Variability and Vibration Magnitude on Vibration Transmission to Head during Exposure to Whole-Body Vertical Vibration, **International Journal of Acoustics and Vibration**, Vol. 16, No. 2, pp. 88 - 97. (**Impact Factor 0.291**)
57. Upadhyay S.H., Jain S.C and **Harsha, S. P.**, "Chaotic Dynamics of High Speed Rotating Shaft Supported by Ball Bearings Due to Distributed Defects" **International Journal of Engineering Science and Technology** (Accepted).
58. Anand Y Joshi, **Harsha, S. P.**, Satish C Sharma, "The Effect of Pinhole Defect on Vibration Characteristics of Single Walled Carbon Nanotube", **Physica E: Low Dimensional systems & Nanostructures**, Vol. 43, (5), pp. 1040-1045. (**Impact Factor 1.17**)
59. Unnati A Joshi, Satish C Sharma, **Harsha S. P.**, (2011) "Effect of Waviness on the Mechanical Properties of Carbon Nanotube based Composites" **Physica E: Low Dimensional systems & Nanostructures**, Vol. 43, (8), 1453-1460 (**Impact Factor 1.17**).
60. Anand Y Joshi, Satish C Sharma, **Harsha, S. P.** "Zeptogram Scale Mass Sensing Using of Single Walled Carbon Nanotube Based Bio Sensors", **Sensors & Actuators: A Physical**, Vol. 168, (2), pp. 275-280. (**Impact Factor 1.67**)
61. M. K. Bhiwapurkar, V.H. Saran, **Harsha, S. P.**, "Objective and Subjective Responses of Seated Subjects while Reading Hindi Newspaper under Multi Axis Whole-Body Vibration." **International Journal of Industrial Ergonomics** (In press). (**Impact Factor 0.96**)
62. Unnati A Joshi, Satish C Sharma, **S.P. Harsha** "Analysis of elastic properties of carbon nanotube reinforced nanocomposites with pinhole defects" **Computational Materials Science**, Vol. 50, 2011, 3245-3256, Elsevier Publishers, (**Impact Factor 1.458**).
63. Unnati A Joshi, **S. P. Harsha**, Satish C Sharma, "Modeling and analysis of mechanical behaviour of Carbon Nanotube reinforced composites", **Proceedings of IMECH E, Part N: Journal of Nanoengineering and Nanosystems**, Institution of Mechanical Engineers, Vol. 225, No.1, 2011, United Kingdom.
64. Unnati A Joshi, Satish C Sharma, **S.P. Harsha**, "Influence of Dispersion and Alignment of Nanotubes on the Strength and Elasticity of Carbon Nanotubes Reinforced Composites" **ASME Journal of Nanotechnology in Engineering & Medicine**, Vol. 2, 2011, 041007-1.
65. **Research Highlights**: "Nanotubes as Mass Sensors", Nature India, doi: 10.1038/ nindia. 2011.119, Published: 18th August, 2011, **Nature Publishing Group, United Kingdom**.

(2012)

66. Kankar P. K., Sharma Satish C. and **Harsha S.P.**, “Vibration Based Performance Prediction of Ball Bearings Caused by Localized Defects”, **An International Journal of Nonlinear Dynamics and Chaos in Engineering Systems**, 2012, Vol. 69, pp. 847-875, Springer (**Impact Factor 1.658**).
67. Kankar P.K., Sharma Satish C. and **Harsha S.P.**, “Fault Diagnosis of High Speed Balanced Rotor Supported on Ball Bearings Using Machine Learning Methods”, **International Journal of Modelling, Identification and Control**, **Accepted**, 2012, Vol. 15, No. 3, 185-198, Inderscience Publishers.
68. Unnati A Joshi, Satish C Sharma, **S.P. Harsha**, “Analysis of Fracture in Carbon Nanotube based Composites Using XFEM” **Journal of Computational & Theoretical NanoScience**, (**Impact Factor 0.89**) (American Scientific Publications) Vol. 9(6), 2012, 1-7.
69. Unnati A Joshi, Satish C Sharma, **S. P. Harsha**, “Effect of Carbon Nanotube orientation on the Mechanical Properties of Nano Composites”, **Composites Part B: Engineering**, **Elsevier Publishers**, 43, 2012, 2063-2071. (**Impact Factor 1.763**).
70. Kankar P.K., Sharma Satish C. and **Harsha S.P.**, “Nonlinear Vibration Signature Analysis of a High Speed Rotor Bearing System Due to Race Imperfection”, **ASME Journal of Computational and Nonlinear Dynamic**, Vol. 7, pp. 011014/1 - 011014-16, 2012.
71. Anand Y Joshi, Satish C Sharma, **S. P. Harsha**, “Chaotic response analysis of single walled carbon nanotube due to surface deviations”, **Nano** (World Scientific press) 7, (2), 2012, 1250008/1 - 1250008/10, (**Impact Factor 1.106**)
72. Kankar P.K., Sharma Satish C. and **Harsha S.P.**, “Vibration Signature Analysis of a High Speed Rotor Supported on Ball Bearings Due to Localized Defects”, **Journal of Vibration & Control**, 2013, 19-12, pp. 1833-1853., (**Impact Factor 1.966**), DOI: 10.1177/1077546312448506.
73. Bende Vikrant, Pathak P. M., Kedar S. Dixit and **Harsha S.P.**, “Energy optimal trajectory planning of an underwater robot using a genetic algorithm”, **Proceeding of IMECH E, Part I: Journal of Systems & Control Engineering**, 2012, 226:1077-1087, (**Impact Factor 0.667**), DOI: 10.1177/0959651812447232.
74. Ankit Gupta, Anand Y. Joshi, Satish C. Sharma, **S. P. Harsha**, “Dynamic Analysis of Fixed-free Single-walled Carbon Nanotube Based Bio-sensors because of Various Viruses’ ”, **IET Nano-biotechnology** (**Impact Factor 1.87**), Volume 6, issue 3, 2012, p. 115 - 121 (**Impact Factor 1.000**) DOI:10.1049/iet-nbt.2011.0057.
75. M. K. Bhiwapurkar, V.H. Saran, **Harsha, S. P.**, “Interference in Reading E-Paper under Whole-Body Vibration Exposure with Subject Posture.” **International Journal of Acoustics & Vibrations**, Vol. 17, No. 2, 2012, pp. 100-107.
76. Anand Y Joshi, Satish C Sharma, **S. P. Harsha**, “Nonlinear Dynamic Analysis of Single walled carbon nanotube based mass sensors due to surface deviations”, **ASME Journal of Nanotechnology in Engineering and Medicine**, 2(4), 041008 (Apr 04 2012); DOI: 10.1115/1.4005663.
77. Unnati A Joshi, Satish C Sharma, **S. P. Harsha**, “A Multiscale Approach for Estimating the Chirality Effects in Carbon Nano Tube Reinforced Composites”, **Physica E: Low Dimensional systems & Nanostructures**, 45, (2012), pp. 28-35 (**Impact Factor 1.17**).
78. P.K. Kankar, Satish C. Sharma and **S.P. Harsha**, “Fault Diagnosis of Rolling Element Bearing Using Cyclic Autocorrelation and Wavelet Transform”, **Neurocomputing**, 110: 9-17 (2012), Elsevier publishers.

79. Gajbhiye S.C., Upadhyay S.H., **Harsha S.P.**, “Wrinkling Dynamics of Membrane based on User defined Wrinkling Pattern,” **International Journal of Computational Material Science and Engineering**, 01, 1250034 (2012) [11 pages], World Scientific Publishing Co., DOI:10.1142/S2047684112500340)

(2013)

80. Pandya D.H., Upadhyay S H and **Harsha S. P.**, “Fault Diagnosis of Rolling Element Bearing with Intrinsic Mode Function of Acoustic Emission data using APF-KNN” **Expert Systems with Applications**, Vol. 40, 2013, pp. 4137-4145, Elsevier publishers (Impact Factor 2.45), (Citation: 01)
81. D. Venkateswarlu, N. R. Mandal, M. M. Mahapatra and **S. P. Harsha**, “Threaded Tool Designs and Their Effects on Friction Stir Welded AA7039 Aluminium Alloys, **Welding Journal (American Society of Welding)**, Vol 92, pp. 41 – 47, Feb 2013
82. Gajbhiye S.C., Upadhyay S.H., **Harsha S.P.**, Vibration analysis of inflatable torus based on mode shape, **American Institute of Aeronautics and Astronautics Journal**, Vol. 56 , No. 06, pp. 1526-1532, 2013. (Impact Factor 1.057)
83. Panchal Mitesh B., Upadhyay S.H., **Harsha S.P.**, 'Effect of Chirality on Resonant Behavior of Single Walled BN Nanotube Based Nanomechanical Resonator', **Current Nanoscience**. 9 (4), 2013, 525-531. Bentham Science Publishers. (Impact Factor=1.776)
84. Panchal Mitesh B., Upadhyay S.H., **Harsha S.P.**, 'An Efficient Finite Element Model For Analysis Of Single Walled Boron Nitride Nanotube Based Resonant Nanomechanical Sensors'. **NANO: Brief Reports and Reviews**, 8 (1), 2013, 1350011(1-16). World Scientific Publishing Co., DOI:10.1142/S1793292013500112,), (Impact Factor=1.19) , (Citation: 03)
85. Pandya D.H., Upadhyay S H and **Harsha S. P.**, “Nonlinear Dynamic Analysis of High Speed Bearings Due to Combined Localized Defects”- **Journal of Vibration and Control**, SAGE publication, DOI: 10.1177/1077546313483790, (Impact Factor 1.966).
86. Pandya D.H., Upadhyay S H and **Harsha S. P.**, “Fault Diagnosis of Rolling Element Bearing by using Multinomial Logistic Regression and Wavelet Packet Transform”-**Soft Computing**, Springer publishers, DOI 10.1007/s00500-013-1055-1, (Impact Factor 1.88).
87. Gajbhiye S.C., Upadhyay S.H., **Harsha S.P.**, Non-linear vibration analysis of piezo-actuated flat thin membrane, **Journal of Vibration and Control**, 2013, (DOI: 10.1177/1077546313493456) (Impact Factor 1.966)
88. Gajbhiye S.C., Upadhyay S.H., **Harsha S.P.**, Effects of photostrictive actuator and active control of flexible membrane structure, **Smart Structures and Systems**, 2013. [Accepted], (Impact Factor 1.430)
89. Yadav H., Upadhyay S.H., **Harsha S.P.**, “Study of effect of Unbalanced Force for High Speed Rotors.” **Procedia Engineering** (Elsevier Publisher) 64, 2013 pp 593 – 602.

(2014)

90. **Harsha S. P.**, M. Desta, A. S. Prashanth, V. H. Saran, “Measurement and Bio-dynamic Model Development of Seated Human Subjects Exposed to Low Frequency Vibration Environment.” **International Journal of Vehicle Noise and Vibrations (IJVNV)**, Inderscience Publishers, 10 (2), 2014, 1- 24.
91. Gajbhiye S.C., Upadhyay S.H., **Harsha S.P.**, “Finite element analysis of an inflatable torus considering air mass structural element,” **Advances in Space Research**, 2013. [Accepted, in press], (Impact Factor 1.183)

92. Gananath D. Thakre, Satish C. Sharma, **Harsha S. P.**, M.R. Tyagi "Tribological failure analysis of gear contacts of Exciter Sieve gear boxes" **Engineering Failure Analysis** (Elsevier Publisher), Volume 36, 2014, pp 75-91. (Impact Factor 1.057)
93. Nagvendra Kumar Kanoje, Satish C. Sharma and **S.P. Harsha**, EPFM Analysis Of Subsurface Crack Beneath A Wheel Flat Using Dynamic Condition, *Procedia Material Science* 2014 (Accepted)
94. Nagvendra Kumar Kanoje, Satish C. Sharma and **S.P. Harsha**, Wheel-Rail And Wheel-Flat As A Coupled System: Contact Dynamics Modeling with Finite Element Analysis, *Journal of Coupled System and Dynamics (JCSMD)* 2014 (Accepted)
95. Sandesh Trivedi, Satish C. Sharma and **S. P. Harsha**, "Single walled-boron nitride nanotubes based nano-resonator for sensing of acetone molecules" **NANO**, World Scientific Publishing, (Impact Factor=1.19) Accepted
96. A K Gupta & **S.P. Harsha**, "Effect of crack and determination of fracture energy of carbon nanotube reinforced polymer composites" **Proceedings of IMECH E, Part N: Journal of Nanoengineering and Nanosystems**, Institution of Mechanical Engineers, Accepted, United Kingdom.

National Journal: 02

1. P.P. Singh, J. Yadav, M.K. Bhiwapurkar V.H. Saran **Harsha S. P.**, (2010), "A futuristic model for activity comfort using Artificial Neural Network", *Indian Journal of Engineering, Science and Technology*, Vol.4 No.1, pp. 232 - 245.
2. Sandesh Trivedi, Satish C. Sharma, and **S. P. Harsha**, "Dynamic Analysis of Single Walled Boron Nitride Nanotube Reinforced Composite Based Nanomechanical Resonator," *Journal of the Institution of Engineers (India): Series D*, 2014. (Springer publication)

BOOK Chapter: 01

1. P.K. Kankar, Satish C. Sharma and S.P. Harsha, Wavelet Selection Criterion for Detection of Localized Defects in Bearings, *Recent Advancements in Rotor Dynamics*, MACMILLAN PUBLISHERS, USA ISBN: 978-935-059-056-0

International/National Conferences: 76

(2001)

1. Harsha, S. P., K. Sandeep and Prakash R., (2001) "Analysis of Angular Contact Ball Bearings Using Object Oriented Programming." ISTAM (International Meet) held at IIT-Kharagpur, pp. 201 - 209.
2. Harsha, S. P. and Prakash R, (2001) "A Model for Structural Vibrations in Rolling Element Bearings." National Conference on Advanced Trends in Mechanical Engg. Research and Development held at JNTU - Anantapur, pp. 31- 38.
3. Harsha, S. P. and Prakash R, (2001) "Dynamic Analysis of High Speed Ball Bearings." National Conference on Engineering Design held at MBMEC - Jodhpur, pp. 87 - 98.

(2002)

4. Harsha, S. P. and Purohit R. K., (2002) "Analysis of Ball Bearings Using Computer Methods." ISTAM (International Meet) held at IIT - Guawati, pp. 55 - 62.
5. Harsha, S. P., K. Sandeep and Prakash R., (2002) "Chaotic Vibrations in High Speed Rolling Element Bearings." International Conference on Industrial Tribology (ICIT) held at TATA STEEL- Jamshedpur, pp. 57 - 63.

6. Harsha, S. P., K. Sandeep and Prakash R., (2002) "Nonlinear Dynamic Responses in Rolling Element Bearings Due to Surface Waviness Under Radial Load." International Conference on Vibration Engineering and Technology of Machinery (Vetomac) held at BARC - Mumbai.

(2003)

7. Harsha, S. P., K. Sandeep and Prakash R., (2003) "Nonlinear Dynamic Analysis of Complex Rotor Bearing System." National Symposium on Rotor Dynamics held at IIT - Guwahati, Paper No. CP_ 22.
8. Harsha, S. P., K. Sandeep and Prakash R., (2003) "Nonlinear Dynamic Behaviors of a Complex Rotor Bearing System Due to Surface Imperfections." International Symposium on Process on Process Systems Engineering & Control held at IIT - Bombay, 2003, pp. 241 - 246.

(2004)

9. Harsha, S. P. and Prakash R., (2004) "Nonlinear Dynamic Analysis of an Unbalanced Rotor Supported by Rolling Element Bearing." International Conference on Vibration Engineering and Technology of Machinery (Vetomac-03) held at The Grand Hotel, New Delhi pp. 342-349.
10. Harsha, S. P. and Prakash R., (2004) "Stability Analysis of an Unbalanced Rotor Supported by Roller Bearing." International Conference on Industrial Tribology (ICIT-04) held at Hyatt Regency International, Mumbai, 15-18 Dec., pp. 307-311.
11. Harsha, S. P. and Prakash R., (2004) "Nonlinear Dynamic Response of Rolling Element Bearings Due to the Effects of Rotor Speed and Radial Internal Clearance." International Conference on Theoretical, Applied, Computational and Experimental Mechanics held at IIT Kharagpur, 2004, Paper No. 105.
12. Harsha, S. P. and Prakash R., (2004) "Stability Analysis of a Balanced Rotor Supported on Rolling Element Bearings." International Congress on Computational Mechanics and Simulations, held at IIT-Kanpur, 2004, Paper No. 15.
13. Harsha, S. P. and Prakash R., (2004) "Stability Analysis of a Complex Rotor Bearing System." National Conference on Mathematical Modeling and Applications, held at BITS-PILANI, 2004, Paper No. 37.

(2005)

14. Harsha, S. P. and Prakash R., (2005) "Nonlinear Dynamic Analysis of High Speed Rolling Element Bearing Due to Unbalanced Rotor Effect." National Conference on Industrial Problems on Machines and Mechanism, held at IIT-Kharagpur, 2005, Paper no. A-30.
15. Harsha, S. P. and Nataraj C., (2005) "Nonlinear Dynamic Analysis of an Unbalanced Rotor Supported by High-Speed Rolling Element Bearings with Effect of Surface Waviness." *International Symposium on Nonlinear Dynamics*, 20-21 Dec. 2005 held at *Shanghai University, Shanghai, China*.

(2006)

16. Harsha, S. P. and Nataraj C., (2006) "Intermittent Chaotic Behaviour of an Unbalanced Rotor Supported by Rolling Element Bearings due to Race Waviness." *11th International Conference on Nonlinear Vibrations, Stability and Dynamics of Structures*, August 13-17, 2006, *Virginia Tech, Blacksburg, VA, USA*.
17. Harsha, S. P. and Nataraj C., (2006) "Nonlinear Dynamic Analysis of an Unbalanced Rotor Supported by High-Speed Rolling Element Bearings with Effect of Surface Waviness." *2nd AIAA / ASME Symposium on Mechanical Engineering, PA, USA* on 11 Feb., 2006.
18. Nataraj C., Kasliwal P., Jain M. and Harsha, S. P., (2006) "Tracking Control of Unmanned Surface Vehicles." *2nd AIAA / ASME Symposium on Mechanical Engineering*, 11 Feb., 2006, (poster presentation) *PA, USA*.

(2007)

19. Harsha, S. P. and Nataraj C., (2007) "The Effect of Surface Waviness and Number of Rolling Elements on the Dynamic Behavior of Rotor-Bearing Systems." *21st Biennial Conference on Mechanical Vibration and Noise, Los Vegas, Sept., 4 - 7, 2007.*
20. Harsha, S. P. and Nataraj C., (2007) "Nonlinear Motion Analysis of Steering Dynamics of Container Ships due to Rudder Amplitude" *3rd AIAA / ASME Symposium on Mechanical Engineering, PA* on 17 Oct., 2007.
21. Harsha, S. P. and Nataraj C., (2007) "Dynamic Analysis of High-Speed Roller Bearings Due to Geometrical Imperfections." *2nd Nonlinear Sc. And Complexity International, Finland* on 3-9 June, 2007.
22. Nataraj C. (2007) and Harsha, S. P. "Quasi-periodic and Chaotic Behavior of Unmanned Surface Vehicles (USV)." *2nd Nonlinear Sc. And Complexity International, Finland* on 3-9 June, 2007.

(2008)

23. Upadhyay S.H., Harsha S.P. and Jain S.C. "Chaotic, Sub-harmonic and Periodic Motion Analysis of a High Speed Balanced Shaft Supported on Roller Bearings" *12th Conference on Nonlinear Vibration, Dynamics and Multibody Systems*, held at Virginia Tech, VA, USA, June 1-5, 2008.
24. Upadhyay S.H., Jain S.C and Harsha S.P. "Nonlinear Vibration Signature Analysis of a Rotor Bearing System Due to Number of Rolling Elements" *International Conference on Industrial Tribology (ICIT)* held at SCOPE Convention center-New Delhi, pp. 57 - 63, Nov. 6-8, 2008.
25. Upadhyay S.H., Jain S.C and Harsha S.P. "Chaotic Dynamics of High-Speed Rotating Shaft with Varying Number of Rolling Elements" *ISTAM (International Meet)* held at Osmania University, Hyderabad, pp. 113-120, Dec. 25-27, 2008.
26. Upadhyay S.H., Harsha S.P. and Jain S.C. "Nonlinear Vibration Signature Analysis of High Speed Unbalanced Rotor Supported by Rolling Element Bearings" *International Conference on Advanced Mechanical Engineering* held at NIT Surat, pp. 564-569, Dec. 15-17, 2008.
27. Harsha, S. P. and Nataraj C., (2008) "Nonlinear Response of Steering Dynamics of Ship due to Rudder Frequency." *12th International Conference on Nonlinear Vibrations, Stability and Dynamics of Structures*, June 1-5, 2008, *Virginia Tech, Blacksburg, VA, USA.*
28. R. N. Murthy, S. Khan, M. Berg, V. K. Geol, V. H. Saran and Harsha, S. P., (2008) "Determination of Activity Comfort in Swedish Passenger Trains." *8th World Congress on Railway Research*, May 23 - 27, 2008, *Seoul, Korea*
29. S. P. Harsha and Satish C. Sharma, "Nonlinear Dynamics of High Speed Unbalanced Rotor Supported on Rolling Element Bearings due to Waviness", *Proceedings of International Conference on Industrial Tribology (ICIT 2008)* held at New Delhi, Nov. 6-8, 2008.
30. Harsha, S. P., V. K. Geol, V. H. Saran and M. Berg, (2008) "Nonlinear Vibration Signature Analysis of Rail Axle Bearing Systems." *12th International Conference on Nonlinear Vibrations, Stability and Dynamics of Structures*, June 1-5, 2008, *Virginia Tech, Blacksburg, VA, USA*
31. Abhijit V. Deokar, P.M. Pathak, Harsha S. P., Dynamic Analysis for Tracking Control of Unmanned Air Vehicle, *Proceedings of 53rd Congress ISTAM*, University College of Engineering, Osmania University, Hyderabad, 2008, pp. 38-44.
32. Harsha, S. P. and Satish C. Sharma, "Nonlinear Dynamics of High Speed Unbalanced Rotor Supported on Rolling Element Bearings due to Waviness", *Proceedings of International Conference on Industrial Tribology (ICIT 2008)* held at New Delhi, Nov. 6-8, 2008.

(2009)

33. 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.
34. Harsha, S. P. and Nataraj C., (2009) "Intermittent Chaotic Behaviour of Rail Axle Supported on Roller Bearings." *22nd Biennial Conference on Mechanical Vibration and Noise, St. Diego, Aug. 30 - 2 Sept., 2009.*
35. Upadhyay S.H., Harsha S.P. and Jain S.C. "Effects of Ball Size Variation and Number of Balls on Nonlinear Vibrations Associated with High Speed Unbalanced Rotor Supported by Rolling Element Bearings" *International Conf. on Vibration Problems (ICoVP)* held at IIT Kharagpur, pp.11-18, Jan. 19-22, 2009.
36. Upadhyay S.H., Harsha S.P. and Jain S.C. "Periodic, Quasi-Periodic and Chaotic Motion Analysis of High Speed Rolling Element Bearings Due to Surface Waviness" *Symposium on Emerging Trends in Rotor Dynamics (IUTAM)* (published by Springer) held at IIT Delhi, March 23-26, 2009.
37. Kamra, R., Upadhyay S.H., Kankar, P.K., Jain, S. C., Sharma, Satish, C., and Harsha S.P. "ANN based fault diagnosis of Rolling Element Bearing" *Symposium on Emerging Trends in Rotor Dynamics (IUTAM)* (published by Springer) held at IIT Delhi, March 23-26, 2009.
38. Upadhyay S.H., Jain S.C. and Harsha S.P. "Vibration Analysis of An Unbalanced Rotating Shaft Due To Ball Waviness" *ASME IDETC/CIE conf. August 30 - September 2, 2009, San Diego, California, USA.*
39. Upadhyay S.H., Jain S.C. and Harsha S.P. "Dynamic Analysis of Ball Bearings Due to Clearance Effect" *ASME IDETC/CIE conf. August 30 - September 2, 2009, San Diego, California, USA.*
40. Upadhyay S.H., Harsha S.P. and Jain S.C. "Periodic, Quasi-Periodic and Chaotic Motion Analysis of a High Speed Rotor Supported by Rolling Element Bearings" *International Conference on Advanced Mechanical Engineering*, NIT Surat, August 3-5, 2009.
41. Upadhyay S.H., Harsha S.P. and Jain S.C. "Nonlinear Vibration Signature Analysis – the Effects of Surface Waviness and Rotor Speed" *3rd International Congress on Computational Mechanics and Simulation (ICCMS-09)*, IIT-Bombay, Dec. 1-5, 2009.
42. Anand Y Joshi, Satish C Sharma, S.P.Harsha, "Mass Sensitivity of Single Walled Carbon Nanotube Based Nano Mechanical Resonators" at *54th Congress of The Indian Society of Theoretical and Applied Mechanics (ISTAM), An International Meet*, December 18 - 21 2009, organized by Indian Institute of Technology, Kharagpur, at Netaji Subhash Institute of Technology, New Delhi, 80 - 84. (Published)
43. P.K. Kankar, Satish C. Sharma and Harsha S. P., "Vibration based Fault Diagnosis of Rolling Element Bearings using Response Surface Method", *Proceedings of the 54th Congress of ISTAM (An International Meet)*, December 18-21, 2009, Netaji Subhas Institute of Technology, New Delhi, India.
44. P.K. Kankar, Satish C. Sharma and Harsha S. P., "Vibration Signature Analysis of a Rotor Bearing System using Response Surface Method", *Proceedings of the ASME 2009 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference*, August 30-September 2, 2009, San Diego, California, USA.
45. Kalyan M. Bhavaraju, P.K. Kankar, Satish C. Sharma and Harsha S. P., "Fault Diagnosis of Ball Bearings using Soft Computing", *Proceedings of the ASME 2009 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference*, August 30-September 2, 2009, San Diego, California, USA.
46. Aashish Bhatnagar, P.K. Kankar, Satish C. Sharma and Harsha S. P., "ANN Based fault classification of High speed ball bearings", *Proceedings of the ASME 2009 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference*, August 30-September 2, 2009, San Diego, California, USA.

47. Rakesh Kamra, S. H. Upadhyay, P.K. Kankar, S. C. Jain, Satish C. Sharma and Harsha S. P., "ANN Based Fault Diagnosis of Rolling Element Bearings", *Proceedings of IUTAM Symposium on Emerging Trends in Rotor Dynamics*, Paper-31, March 23-26, 2009, Indian Institute of Technology Delhi, Delhi, India.
48. M.K. Bhiwapurkar, V.H. Saran, V.K. Goel, Harsha S. P., N. Mansfield, Mats Berg, Study of human comfort under thermal and vibratory environment using physiological indices - Presented at ICSV16 Poland, July 2009.
49. M.K. Bhiwapurkar, V.H. Saran, V.K. Goel, Harsha S. P., Mats Berg, A comparative study on effect of uniaxial and multiaxial whole body random vibration on reading activity, Presented at 3rd International Congress on Computational Mechanics and Simulation (ICCMS09) at IIT-Bombay, Powai, Mumbai, INDIA on 1-5 December 2009.
50. M.K. Bhiwapurkar, V.H. Saran, Harsha S. P., V.K. Goel, Influence of multi axis whole-body random vibration on sedentary activity - an experimental study, Proceedings of 54th Congress of the Indian Society of Theoretical and Applied mechanics (ISTAM) (An International Meet) at Netaji Subhash Institute of Technology, New Delhi on Dec-18-21, 2009.

(2010)

51. 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.
52. Upadhyay S.H., Harsha S.P. and Jain S.C. "Chaotic Dynamics of High Speed Rotating Shaft Supported by Rolling Element Bearings" ASME International Mechanical Engineering Congress & Exposition, will be held at Vancouver, British Columbia, November 12-18, 2010 (Accepted).
53. Upadhyay S.H., Harsha S.P. and Jain S.C. "Vibration Signature Analysis of Rolling Element Bearings Due to Geometrical Imperfections" International conference on Vibration Engineering and Technology of Machinery (VETOMAC), will be held at IIT Delhi, December 13-15, 2010 (Accepted).
54. Upadhyay S.H., Harsha S.P. and Jain S.C. "Vibration Signature Analysis of Rolling element Bearing due to Defects" 7th International conference on Industrial Tribology (ICIT-10), will be held at Ranchi, December 2-4, 2010 (Accepted).
55. Upadhyay S.H., Harsha S.P. and Jain S.C. "Chaotic Dynamics of High Speed Rotating Shaft Supported by Rolling Element Bearings" ASME International Mechanical Engineering Congress & Exposition, will be held at Vancouver, British Columbia, November 12-18, 2010
56. P.K. Kankar, Satish C. Sharma and Harsha S. P., Fault Diagnosis of Rolling Element Bearings Using Artificial Neural Networks and Self Organizing Maps Using Complex Morlet Wavelet, Proceedings of the 7th International Conference on Industrial Tribology, December 2-4, 2010, Ispat Bhawan, Ranchi, India.
57. P.K. Kankar, S. P. Harsha and Satish C. Sharma, 'Vibration Monitoring of Localized defects in Rolling Element Bearings', ECCM, IV European Conference on Computational Mechanics, Paris, France, May 16-21, 2010.
58. P.K. Kankar, S. P. Harsha and Satish C. Sharma, 'A Comparative study on Bearing Faults Classification by ANN and SOM using Complex Morlet Wavelet', ECCM, IV European Conference on Computational Mechanics, Paris, France, May 16-21, 2010.
59. P.K. Kankar, Satish C. Sharma and Harsha S. P., Rolling Element Bearing Fault Diagnosis Using Complex Gaussian Wavelet, Proceedings of the ASME 2010 International Mechanical Engineering Congress & Exposition, November 12-18, 2010, Vancouver, British Columbia, Canada.
60. Kalyan M. Bhavaraju, P.K. Kankar, Satish C. Sharma and Harsha S. P., "Bearing Faults Classification by SVM and SOM Using Complex Gaussian Wavelet", *Proceedings of the 4th International Conference*

on Computer Applications in Electrical- Recent Advances, February 19-21, 2010, Indian Institute of Technology Roorkee, Roorkee, India.

61. M.K. Bhiwapurkar, V.H. Saran, Harsha S. P., V.K. Goel, a comparative study on effect of uniaxial and multiaxial whole body random vibration on sketching activity, Proc. of International Conference on Advances in Industrial Engineering Applications (ICAIEA 2010) , Department of Industrial Engineering, College of Engineering Guindy Campus, Anna University Chennai, India on January 6-8, 2010.
62. M.K. Bhiwapurkar, V.H. Saran, Harsha S. P., Influence of vibration on passenger comfort- a survey on Indian train, International Conference on Advances in Industrial Engineering Applications (ICAIEA 2010) , Department of Industrial Engineering, College of Engineering Guindy Campus, Anna University Chennai, India on January 6-8, 2010.
63. Desta, M., Bhiwapurkar, M. K., Saran, V. H., Harsha, S. P., Effects of Posture and Vibration Magnitude on Seat to Head Transmissibility during Exposure to Whole-body Vertical Vibration, International Conference on Modelling, Identification and Control (ICMIC'10), to be held in Okayama, Japan on July 17-19, 2010

(2011)

64. D.H.Pandya, Alok Misra, S.H.Upadhyay, **S.P.Harsha**, “Application of response surface methodology for determining vibration response for rolling element bearing” Proceedings of the 56th Congress of The Indian Society of Theoretical and Applied Mechanics (ISTAM), An International Meet, organized by Indian Institute of Technology, Kharagpur, at Sardar Vallabhbhai National Institute of Technology, SURAT-395 007,Gujarat, December 19 - 21, 2011, 43 - 50.
65. Upadhyay S.H., Sharma Satish C., **Harsha S.P.** “Nonlinear Dynamic Analysis and Experimental Verification an Unbalanced Rotor Supported by Ball Bearings” ASME IDETC/CIE conf. August 28 - August 31, 2011, Washigton DC, USA.
66. Sardhara Dipan Y., S.C. Gajbhiye, S.H. Upadhyay and **Harsha S.P**, Dec, 19 - 21, 2011, “Vibration analysis of thin membrane structure using finite element method”, Proceedings of 56th Congress of Indian Institute of Theoretical and Applied Mechanics (ISTAM),SVNIT, Surat, Gujrat, India, pp. 75 - 82.
67. P.K. Kankar, Satish C. Sharma and **Harsha S.P**, Wavelet selection criterion for detection of localized defects in bearings, Proceedings of the National Symposium of Rotor Dynamics (NSRD 2011), December 19-21, 2011, Indian Institute of Technology Madras, Chennai, India.

(2012)

68. Unnati A Joshi, Satish C Sharma, **S. P. Harsha**, “An Investigation on the effect of Single Walled Carbon Nano-tube Orientation and Dispersion in Nanocomposites”, **Fourth International Conference on Structural Stability and Dynamics (ICSSD)**, Vol. 1, 2012, 237-242, Department of Structural Engineering, MNIT, Jaipur, India.
69. 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.
70. Anand Y Joshi, Satish C Sharma, **S.P.Harsha**, “Diagnostic Application of CNT as a bio sensor”, 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.

71. D. H. Pandya, S.H.Upadhyay, **S.P.Harsha**, “Intermittent Chaotic Behavior of High Speed Ball Bearings Due to Localized 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.
72. Nagvendra K Kanoje, SC Sharma, Sanjay Upadhyay , **S.P.Harsha**, “Mass Reduction of Railway Wheel Using Response Surface Method Considering Fatigue Life and Wheel Dimension”, 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.
73. P.K. Kankar, Satish C. Sharma and **S.P. Harsha**, Nonlinear Dynamic Analysis of Unbalanced Shaft Supported on Ball Bearings, Proceedings of the 4th International Conference on Structural Stability and Dynamics (ICSSD-12), January 4-6, 2012, Malviya National Institute of Technology, Jaipur, India.
74. S.C. Gajbhiye, Sardhara Dipan Y., S.H. Upadhyay, **S.P. Harsha**, Jan, 4 – 6, 2011, “Finite Element Analysis of Thin Membrane Structure”, 4th International Conference on Structural Stability and Dynamic (ICSSD), MNIT, Jaipur, Rajasthan, India and Texas A&M University, USA, pp. 151 – 157.
75. Sardhara Dipan Y, S. H. Upadhyay and **S. P. Harsha** “Vibration analysis of inflatable parabolic structure for space application” ASME 2012 International Design Engineering Technical Conferences & Computers and information in Engineering Conference (IDETC/CIE 2012), Chicago, Illinois, USA.
76. D. H. Pandya, S.H. Upadhyay and **S.P.Harsha**, “Fault Diagnosis of Low Speed Bearings using AI and Acoustics Emission Technique”, Proceedings of the ACMFMS on Mechanics of Functional Materials and Structures, organized by Department of Applied Mechanics, IIT Delhi, July 2012.
77. S.C.Gajbhiye, S.H. Upadhyay and **S.P.Harsha**, “Vibration Analysis of Three Sided Flat Thin Membrane”, Proceedings of the ACMFMS on Mechanics of Functional Materials and Structures, organized by Department of Applied Mechanics, IIT Delhi, July 2012.
78. Mitesh Panchal, S.H.Upadhyay and **S.P.Harsha**, “Dynamic Behaviour of Single Walled Boron Nitride Nanotubes Based Resonator as Bio-Sensor ”, Proceedings of the ACMFMS on Mechanics of Functional Materials and Structures, organized by Department of Applied Mechanics, IIT Delhi, July 2012.
79. N. K. Kanoje, S. C. Sharma and **S.P.Harsha**, “Surface Crack Under a Wheel Flat Using dynamic conditions and J-integral”, Proceedings of the ACMFMS on Mechanics of Functional Materials and Structures, organized by Department of Applied Mechanics, IIT Delhi, July 2012.

(2013)

80. Prashanth A.S., Saran V. H., **S.P. Harsha**, Dec. 18-21, 2013, “Study of subjective responses on ride comfort in public transport Uttarakhand State buses.” INaCoMM, IIT Roorkee

(2014)

77. Sandesh Trivedi, Satish C. Sharma and **S. P. Harsha**, ‘Evaluations of young’s modulus of boron nitride nanotube reinforced nano-composites’ 3rd International Conference on Materials Processing and Characterisation, Hyderabad, March 2014.

78. Paras Ram, S H Upadhyay and **S P Harsha**, 'Controlling damping force during aircraft arrestment using self-energized valve mechanism' 2nd International Conference on Innovations in Automation and Mechatronics Engineering, Anand, Gujarat, March 2014.
79. S. S. Harak, S. C. Sharma and **S. P. Harsha**, 'Structural dynamic analysis of freight railway wagon using finite element method, 3rd International Conference on Materials Processing and Characterisation, Hyderabad, March 2014.
80. Nagvendra kumar kanoje, Satish C. Sharma and **S.P.Harsha**, 'EPFM Analysis of Subsurface Crack Beneath a Wheel Flat Using 'Dynamic Condition 3rd International Conference on Materials Processing and Characterisation, Hyderabad, March 2014.'
81. A K Gupta & **S.P. Harsha**, 'Analysis of Mechanical Properties of Carbon Nanotube Reinforced Polymer Composites using Continuum Mechanics Approach, 3rd International Conference on Materials Processing and Characterisation, Hyderabad, March 2014.