

PROFORMA FOR BIO-DATA

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3. Institution: PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur
4. Date of Birth: 20th December 1968
5. Gender (M/F/T): M
6. Category Gen/SC/ST/OBC: Gen
7. Whether differently abled (Yes/No): No

8. Academic Qualification (Undergraduate Onwards)

	Degree	Year	Subject	University/ Institution	% of Marks
1	B.E.	1990	Mechanical Engineering	Engineering College Kota	70.2
2	M.Tech.	1994	Reliability Engineering	Indian Institute of Technology Bombay	8.91
3	MBA	2001	Operation Research	IGNOU	
4	Ph.D.	2003	--	Indian Institute of Technology Bombay	

9. Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

“Studies on Piezoelectric Actuated Shell with Application to Optimal Steering of Antenna“, Prof. P. Seshu and Prof. K. Kurien Issac, Indian Institute of Technology Bombay, 2003

10. Work experience (in chronological order).

S. No.	Positions Held	Name of the Institute	From	To	Pay Scale
1	Lecturer, Sr. Lecturer	Rajasthan Technical University Kota	03-12-1994	26-10-2004	--
2	Associate Professor	Rajasthan Technical University Kota	27-10-2004	04-07-2007	--
3	Associate Professor	PDPM IIITDM Jabalpur	05-07-2007	04-07-2012	--
4	Professor	PDPM IIITDM Jabalpur	05-07-2012	Continue	Basic: 195700.00

11. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant

S. No.	Name of Award	Awarding Agency	Year
1	ISAMPE K.Suryanarayan Rao Memorial Senior student award for R & D in smart technology for Year 2003	Indian society for Advancement of Materials and Processing Engineering	2003
2	JSPS Short Term Invitation Fellowship	Japan Society for Promotion of Science, Japan	2015

12. Publications (*List of papers published in SCI Journals, in year wise descending order*).

S. No.	Author(s)	Title	Name of Journal	Volume	Page	Year
1	Swati Agrawal, V.K. Gupta, P.K. Kankar	Study of Horn Shape Double Single Walled Carbon Nanotube System Via Modified Couple Stress Theory	Materials Physics and Mechanics	37(1)	1-6	2017
2	Sultan Singh, Vijay Kumar Gupta, Sujoy Mukherjee	Piezoelectric Based Energy Harvester Embedded In Shoe for Wearable Electronics	Materials Physics and Mechanics	37(2)	159-167	2017
3	Rakesh Kumar Haldkar, Vijay Kumar Gupta and Tanuja Sheorey	Modeling and flow analysis of piezoelectric based micropump with various shapes of microneedle	Journal of Mechanical Science and Technology	31(6)	1-9	2017
4	A M Khalatkar and V K Gupta	Piezoelectric energy harvester for low engine vibration	Journal of Renewable and Sustainable Energy	9(2)	0247-01-1 to 14	2017
5	Vakharia, V., Gupta, V.K. & Kankar, P.K	Efficient fault diagnosis of ball bearing using ReliefF and Random Forest classifier	Journal of the Brazilian Society of Mechanical Sciences and Engineering			2017
6	V. Vakharia, V.K. Gupta, P.K. Kankar	A Comparison of Feature Ranking Techniques for Fault Diagnosis of Ball Bearing	Soft Computing	20 (4)	1601-1619	2016
7	V. Vakharia, V.K. Gupta, P.K. Kankar	Ball Bearing Fault Diagnosis using Supervised and Unsupervised Machine Learning Methods	International Journal of Acoustics and Vibration	20 (4)	244-250	2015

8	V. Vakharia, V.K. Gupta, P.K. Kankar	A Multiscale Permutation Entropy Based Approach to Select Wavelet for Fault Diagnosis of Ball Bearings	Journal of Vibration and Control	21 (16)	3123-3131	2015
9	R. Tiwari, V.K. Gupta, P.K. Kankar	Bearing Fault Diagnosis Based on Multi-Scale Permutation Entropy and Adaptive Neuro Fuzzy Classifier	Journal of Vibration and Control	21 (3)	461-467	2015
10	R. Upadhyay, P.K. Kankar, P.K. Padhy, V.K. Gupta	Feature extraction and Classification of Imagined Motor Movement Electroencephalogram Signals	International Journal of Biomedical Engineering and Technology	13 (2)	133-146	2013
11	S Dhage, VK Gupta, P Seshu, PM Mujumdar, B Seth	Characterization of the Role of Adhesive Bonding on Piezoelectric Actuation of Beams	Journal of Aerospace Sciences and Technologies	58 (3)	225-233	2006
12	VK Gupta, P Seshu, KK Issac, RK Shevgaonkar	Optimal steering of a paraboloid antenna using piezoelectric actuators	Smart Materials and Structures	16(1)	67	2006
13	VK Gupta, P Seshu, KK Issac, RK Shevgaonkar	Beam steering and shaping of smart cylindrical antenna	AIAA journal	43(1)	165-173	2005
14	VK Gupta, P Seshu, KK Issac	Finite element and experimental investigation of piezoelectric actuated smart shells	AIAA journal	42(10)	2112-2123	2004
15	VK Gupta, P Seshu, KK Issac	Degenerated shell finite element for smart structures	Smart Materials, Structures, and Systems		326-333	2003

Conference Publications

S. No.	Authors	Title of Paper	Conference Name	Venue	Year
1.	Swati Agrawal, V.K. Gupta, P.K. Kankar	Horn Shape Double Single Walled Carbon Nanotube System via Modified Couple	International conference on Physics and Mechanics of New Materials and their Applications	Korea Maritime and Ocean University, Busan	2018

		Stress Theory - Effect of Biomolecule	(PHENMA-2018)		
2.	Rommel Nath, P.K. Kankar, V.K. Gupta	Study of Archimedes Wave Swing Harvester for Indian Ocean	International conference on Physics and Mechanics of New Materials and their Applications (PHENMA-2018)	Korea Maritime and Ocean University, Busan	2018
3.	Tejkaran Narolia, Vijay K. Gupta, I.A. Parinov	A novel design for Piezoelectric Based Harvester for Rotating Objects	International conference on Physics and Mechanics of New Materials and their Applications (PHENMA-2018)	Korea Maritime and Ocean University, Busan	2018
4.	Rakesh Kumar Haldkar ; Tanuja Sheorey ; Vijay Kumar Gupta ; M. Zahid Ansari	Four segment piezo based micropump	SPIE Smart Sensors, Actuators, and MEMS VIII, 102461B	Barcelona, Spain	2017
5.	Swati Agrawal, V K Gupta, P K Kankar	Mode Shapes of Magnetic Field Affected Double Single Walled Carbon Nanotube System	ISSS National Conference on MEMS, Smart Materials, Structures and Systems	IIT Kanpur, India	2016
6.	Swati Agrawal, V.K. Gupta, P.K. Kankar	Static Analysis of Magnetic Field Affected Double Single Walled Carbon Nanotube System	3rd International Conference on Innovations in Automation and Mechatronics Engineering 2016, ICIAME 2016	G H Patel College of Engineering & Technology, Vallabh Vidyanagar Gujarat	2016
7.	V Vakharia, VK Gupta, PK Kankar	Bearing Fault Diagnosis Using Feature Ranking Methods and Fault Identification Algorithms	12th International Conference on Vibration Problems (ICOVP 2015)	IIT Guwahati	2015
8.	V Vakharia, VK Gupta, PK Kankar	Nonlinear Dynamic Analysis of Ball Bearings Due to Varying Number of Balls and Centrifugal Force	Proceedings of the 9th IFToMM International Conference on Rotor Dynamics	Politecnico di Milano, Milan, Italy	2015

9.	R Tiwari, PK Kankar, VK Gupta	Bearing fault diagnosis using Radial Basis Function network and adaptive neuro fuzzy classifier	IEEE International Conference on Control, Automation, Robotics and Embedded Systems (CARE)	PDPM IITDM Jabalpur	2013
10.	R Tiwari, PK Kankar, VK Gupta	Fault Diagnosis of Ball Bearings Using Support Vector Machine and Adaptive Neuro Fuzzy Classifier	Proceedings of the Second International Conference on Soft Computing for Problem Solving (SocProS 2012)	Jaipur, Rajasthan, India	2012
11.	R Upadhyay, PK Kankar, PK Padhy, VK Gupta	Extraction and classification of electroencephalogram signals	IEEE International Conference on Computational Intelligence & Computing Research (ICCIC), 2012	Tamilnadu College of Engineering, Coimbatore, India	2012
12.	R Upadhyay, PK Kankar, PK Padhy, VK Gupta	Classification of drowsy and controlled EEG signals	IEEE 3rd Nirma University International Conference on Engineering (NUiCONE)	Nirma University	2012
13.	S Warisawa, K Tsuchiya, V K Gupta, T Sheorey, P Tandon	Design and analysis of a micro pump for wearable blood sampling system	2012 ASME/JSME Joint International Conference on Micromechatronics for Information and Precision Equipment (MIPE 2012)	Santa Clara, California University, USA	2012
14.	Abhay Khalatkar, Vijay K Gupta, Rakeshkumar Haldkar	Modeling and simulation of cantilever beam for optimal placement of piezoelectric actuators for maximum energy harvesting	SPIE Smart Nano-Micro Materials and Devices	Melbourne, Australia	2011
15.	VK Gupta, P Seshu, KK Issac, RK Shevgaonkar	Piezoelectric Actuated Antenna Shells	Eleventh World Congress of the International Conference IFTOMM	Tianjin, China	2004
16.	Vijay Kumar Gupta	Experimental Investigation on Piezoelectric Actuated Beams	International Conference on Materials for Advanced Technologies	SUNTEC, Singapore	2003

17.	VK Gupta, P Seshu, KK Issac	Finite element and experimental studies on piezoelectric actuated curved beams	43rd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference	Denver, Colorado	2002
18.	VK Gupta, P Seshu, KK Issac	Degenerated shell finite element for smart structures	ISSS-SPIE conference 2002	IISc Bangalore	2002

13. Detail of patents: Nil

S.No.	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency/ country	Status

14. Books/Reports/Chapters/General articles etc.

S.No.	Title	Author's Name	Publisher	Year
1	Book on Advanced Materials: Proceedings of the International Conference on "Physics and Mechanics of New Materials and Their Applications", PHENMA 2017	V.K. Gupta, I.A. Parinov and S.H. Chang	Springer, Cham	2018
2	Book on Proceedings of the International Conference on "Physics and Mechanics of New Materials and Their Applications", PHENMA 2017	I.A. Parinov, S.H. Chang and V.K. Gupta	Nova Science Publishers	2018
3	Book chapter on The Effect of Operating Frequency and Needle Diameter on Performance of Piezoelectric Micropump	Rakesh Kumar Haldakar, Tanuja Sheorey	Springer, Cham	2018
4	Book Chapter on Mathematical Modelling of Stepped Beam Energy Harvesting Using Euler-Bernoulli's Theory	S.K. Prajapati, Sujoy Mukherjee	Springer, Cham	2018
5	INCRS-2018 Abstract and Schedule Book	P.V. Varde and P.K. Kankar	PDPM IIITDM Jabalpur	2018
6	Comparative Study of Cantilever Carbon Nanotube with Carbon Nanotube System	Swati Agrawal, Pavak Kumar Kankar	Springer, Cham	2018
7	PHENMA 2017: Abstract and Schedule book	I.A. Parinov and S.H. Chang	PDPM IIITDM Jabalpur	2017
8	"Comparison between applied theory and final element method for energy harvesting non-homogeneous piezo elements modeling" in Advanced Materials: Processing, Physics, Mechanics and Applications	Arcady N. Soloviev, Pavel A. Oganessian, A.S. Skaliukh, Le V. Duong, Vijay	Springer	2017

		Kumar Gupta, Ivan A. Panfilov		
9	Study of the output characteristics of ferroelectric ceramic beam made from non-polarized ceramics PZT-19: experiment and modeling	A.N. Soloviev, V.A. Chebanenko, Yu. N. Zakharov, E.V. Rozhkov, I.A. Parinov, V. K. Gupta	Springer	2017

15. Project undertaken:

S. No.	Investigator(s)	Title	Funding Agency	Duration	Financial Outlay	Status
1	Prof. Puneet Tandon, Prof Vijay Kumar Gupta	Numerical modeling and development of new methods for hybrid metal forming of complex parts of ultra-high strength (UHS) materials	DST (DST-RFBR Scheme)	2018-2021	Rs. 20.68 Lacs	Sanctioned
2	V.K. Gupta, Prof. P. Tandon	FIST Engineering Sciences Level I Project	DST (FIST scheme)	2018-2023	1.94 crore	Ongoing
3	Dr. P. K. Kankar, Prof. V. K. Gupta and Dr. P. K. Jain	Theoretical Formulations & Analytical Modelling for Buckling Analysis of Hydraulic Cylinder	R&DE-DRDO	2016 - 2019	9.85 Lacs	Ongoing
4	Prabin Kumar Padhy, Vijay Kumar Gupta	Brain Control Mobile Robot	DST	2012 - 2014	18.5 Lacs	Completed
5	V.K. Gupta, T. Sheorey, P. Tandon	Vlab on Manufacturing Processes	MHRD	2010 - 2013	40 Lacs	Completed
6	T. Sheorey, V.K. Gupta, P. Tandon	Vlab on Mechatronics	MHRD	2010 - 2013	40 Lacs	Completed
7	Puneet Tandon, Vijay Kumar Gupta, Tanuja Sheorey	Development of a micro pump with NEMS sensing function for an automatic blood collecting and measurement system	DST-JSPS	2010 - 2012	4 Lacs	Completed
8	Puneet Tandon, Pritee Khanna, Vijay Kumar Gupta	Geometric Modeling, Analysis and Design for Generic Definitions of Custom Engineered Cutting Tools	DST	2008 - 2012	25.26 Lacs	Completed

16. Ph.D. Thesis Supervision

S. No.	Student Details	Thesis Title	Year of Completion	Supervisors
1	Abhay M Khalatkar	Harvesting Energy from Engine Vibrations Using Piezoelectric Cantilever Beam	2018	Vijay Kumar Gupta
2	Vinay Vakharia	Detection and Dynamic Analysis of Common Bearing Faults Using Vibration Signals and Machine Learning Techniques	2015	Pavan Kumar Kankar and Vijay Kumar Gupta

17. M.Tech. Thesis Supervision

S. No.	Student Details	Thesis Title	Year of Completion	Supervisors
1	Aman Shree	Design and modelling of Stewart Platform based biped	2018	Vijay Kumar Gupta
2	Rohit Gautam	Classification of EEG Signals for Different Hand Movements	2018	Tanuja Sheorey, Vijay Kumar Gupta
3	Rommel Nath	Ocean Energy Harvesting for Indian Ocean Waves	2018	Pavan Kumar kankar, Vijay Kumar Gupta
4	Abhinav Joshi	Design of an in pipe Inspection Robot for water leak detection	2018	Tanuja Sheorey, Vijay Kumar Gupta
5	Bhuvendr Itoria	Finite Element Analysis on Implant Dentistry	2017	Vijay Kumar Gupta
6	Vivekanandan M.	Design and Modelling of Stewart Platform Based Biped Robot with Compliant Mechanism	2017	Vijay Kumar Gupta
7	Sultan Singh	Piezoelectric based energy harvester embedded in shoe for wearable sensors	2017	Sujoy Mukherjee and Vijay Kumar Gupta
8	Tej Prakash Sahu	Grasping Aspects and Kinematic Analysis of Multi Finger Robotic Gripper	2017	Vijay Kumar Gupta
9	Apoorv Vikram Singh Bhadoriya	Development of In-pipe Inspection Robot	2017	Vijay Kumar Gupta and Sujoy Mukherjee
10	Avnindra Kumar	Design and Development of Robotic Gripper	2017	Tanuja Sheorey and Vijay Kumar Gupta
11	Ankur Kushwaha	Controller Design for Robotic Gripper	2017	Tanuja Sheorey and Vijay Kumar Gupta
12	Sunil Kumar Prajapati	Mathematical modelling of the single step stepped cantilever beam	2016	Sujoy Mukherjee and Vijay Kumar Gupta
13	Ankur Baruah	Model-Based Design of a	2016	Vijay Kumar Gupta

		Parallel HEV		and Tanuja Sheorey
14	Vijay Kumar Pandey	Development of Automated Seed Sowing Vehicle	2016	Vijay Kumar Gupta and Tanuja Sheorey
15	Suteerth Tripathi	Gyroscopic Effect of Waist and Arm Swing on Balance of a Humanoid Robot	2015	Vijay Kumar Gupta
16	Ritesh Kumar	Design and Development of Low Cost Piezoelectric Green Energy Harvester using Base Excitation of Cantilever Beam	2015	Vijay Kumar Gupta, Mohd. Zahid Ansari
17	Anitha Francis	Underwater Robot Mimicking Jet Propulsion Inspired by Feather Sea Star	2015	Vijay Kumar Gupta and Sujoy Mukherjee
18	Kunbi Bhavesh Kumar Babubhai	Design of Intelligent Robotic Gripper for Grasping Delicate or Fragile Objects	2015	Vijay Kumar Gupta
19	Atul Kumar Gupta	Design and Development of Six Wheeled Multi Terrain Robot	2014	Vijay Kumar Gupta
20	Arpit Gupta	Design of ANN Based Model and Controller For a Leg of Comet- IV	2013	Kenjo Nonami and Vijay Kumar Gupta
21	Niraj Kumar Goswami	Design and Development of 6-Dof Industrial Manipulator	2013	Vijay Kumar Gupta
22	Rohit Tiwari	An Intelligent System For Bearing Fault Diagnosis	2013	Vijay Kumar Gupta and Pavan Kumar Kankar
23	Rakesh Kumar Haldkar	Optimum Placement of Piezoelectric Actuator in a Cantilever Beam for Maximum Energy Harvesting	2011	Vijay Kumar Gupta