

## BIO-DATA



- 1 Name** Dr. Dhananjay Ramchandra Panchagade  
**2 Designation** Associate Professor  
**3 Residential Address** Vashi, Navi Mumbai. 400703  
**4 Date of birth** 4<sup>th</sup> May  
**5 Total Experience** 16 yrs  
**Teaching** 10 yrs

**6 Qualifications**

| Exam Passed | Year | Institution/ University        | Branch/Specialization  |
|-------------|------|--------------------------------|------------------------|
| PhD.        | 2007 | Auburn University,<br>USA      | Mechanical             |
| M.S.        | 2000 | Wayne State<br>University, USA | Mechanical             |
| B.E.        | 1998 | Pune University                | Mechanical Engineering |

**7. Employment Record**

| Institution                              | Year<br>(From To)          | Designation         |
|--|----------------------------|---------------------|
| Fr. C. Rodrigues Institute of Technology | 24/01/2022 till date       | Associate Professor |
| Indira College of Engg & Management      | 06/09/2018 till 31/12/2019 | Associate Professor |
| D. Y. Patil College of Engg, Akurdi      | 01/07/2011 till 30/06/2018 | Associate Professor |

**8 Undergraduate / Postgraduate Teaching Experience and Subjects Taught**

**Subjects Taught at UG level**

| Sr.No. | Name of Subject                        | Semester |
|--------|--|----------|
| 1.     | Design of Mechanical Systems           | VII      |
| 2.     | Automation and Artificial Intelligence | VI       |
| 3.     | Engineering Graphics                   | II       |

|    |                           |         |
|----|---------------------------|---------|
| 4. | Hydraulics and Pneumatics | VI/VIII |
|----|---------------------------|---------|

**Subjects Taught at PG level**

| Sr.No | Name of Subject                  | Semester |
|-------|----------------------------------|----------|
| 1.    | Research Methodology             | I        |
| 2.    | Advanced Finite Element Analysis | I        |
| 3.    | Advanced Stress Analysis         | II       |
| 4.    | Computer Aided Engineering (CAE) | II       |

**9 Research Experience**

| Institution                                | Year<br>(From To)          | Designation             |
|--|----------------------------|-------------------------|
| National Renewable Energy Laboratory (USA) | 17/05/2010 till 16/05/2011 | Postdoctoral Researcher |
| Auburn University (USA)                    | 18/08/2007 till 15/05/2010 | Postdoctoral Fellow     |

**10 Research Funding / Consultancy Services:**

| Sr. No. | Name of the Company | Address  | Product      | Consulting Service  | Consulting Fees | Period   |
|---------|---------------------|--|--------------|---|-----------------|--|
| 1       | IFS Academy         | Flat No. 11, Vishal Heights, Walhekarwadi Rd, Chapekar Chowk, Chinchwadgaon, Pune 411033 | FEA Solution | Problem solution and training using Abaqus Simulia Software | Rs. 24000/-     | 16/7/2020 to 25/7/2020<br>27/10/2020 to 5/1/2021 |

**Research Grants:**

**Technical Collaboration / Lab Funding with Industries**

| Sr.No. | Name of the Funding Organization | Type of Support | Amount (Rs.) | Year |
|--------|----------------------------------|-----------------|--------------|------|
|        |                                  |                 |              |      |

**11 Professional Societies Fellowship / Membership: IEEE CPMT, ISTE, CVS, IEL, IWS**

**12 Achievements / Awards / Position:**

Presidential Fellowship – Auburn University (USA) 2002-2005

**13 Projects guided in UG/PG level: 12/12**

**14 Short Term Training Programmes attended:**

Industrial training on “PLC and IoT Learning” organized by COTMAC Electronics Pvt Ltd, Pune (15 May to 20 May 2023).

**15 List of Journal Papers Published**

1. Design And Development Of A High Strain Rate Compact Tensile Testing Machine, Bohra Y., Saste R., Phils M., Panchagade D., Technix International Journal for Engineering Research, vol. 10, Issue 6, pp. 751-756, ISSN 2349-9249, June 2023.
2. Design and Development of Disc Throwing Robot with Variable Angle Mechanism, Bairagi, P., Vaidya, S., More, S., Neware, S., Panchagade, D., International Journal of Scientific Development and Research, Vol. 3, Issue 11, pp. 163-169, ISSN 2455-2631, Nov 2018.
3. Biomechanical Foot with Double Wishbone Structure, Bairagi, P., Meghanic, L., Panchagade, D., International Journal of Research and Review, Vol. 5, Issue 10, pp. 197-201, ISSN 2349-9788, 2018.
4. Self Levelling Table Using Gyroscopic Sensor and Lidar Technology, Bairagi, P., Vaidya, S., More, S., Panchagade, D., International Journal of Scientific Development and Research, Vol 3, Issue 11, pp. 202-208, ISSN 2455-26311, Oct 2018.
5. Design of Pool Water Management System for Storage of Radioactive Materials, Akash Karatmol, D R Panchagade et. al., International Journal of Engineering, Research and Technology, Vol. 7, Issue 6, pp.1-6, June 2018.
6. Development and FEA analysis of FRP butt to join two dissimilar materials, S Gurav, D Panchagade, International Journal for Science and Advance Research in Technology, Vol 3, ISSN 2395-1052, 2017.
7. Finite Element Analysis of Stacked U-tube Heat Exchanger, S Gholap, D R Panchagade, International Journal OF Engineering Trends and Technology, Vol 39, No. 3, ISSN 2231-538, 2016.
8. Modelling Moisture Ingress through polyisobutylene-based edged seals, M D Kempe, D Panchagade, M O Reese, A A Dameron, Progress in Photovoltaic Research and Applications, Vol 23, pp. 570-581, 2015.
9. Experimental Verification of Electrically Powered Hybrid Suspension for Automobile, V Aher, K Narkar, D Panchagade, International Journal of Engg Sciences and Research Technology, Vol 4, No 12, ISSN 2277-9655, 2015.
10. Design of Agricultural Mechanical weed mover, A. Patil, D R Panchagade, International Engineering Research Journal (IERJ), No 2, pp. 693-699, ISSN 2395-1621, 2015.
11. Optimization of Roll Over Protection Structure, K M Narkar, S Khaisar Sardar, D Panchagade, International Journal for Scientific Research and Development, Vol 2, Issue 4, ISSN 221-0613, 2014.
12. Continuum Modeling Techniques to Determine Mechanical Properties of Nanocomposites, S. Gholap, D R Panchagade, Vinay Patil, International Journal of Modern Engineering Research (IJMER), Vol 4, Issue I, pp. 9-15, 2014.
13. Load deflection analysis of Corrugated Stainless-Steel Diaphragms, N Panse, D Panchagade, International Journal of latest trends in Engg and Technology, Vol 3, No 1, pp. 33-36, ISSN 2278-621X, 2013.
14. FEA Simulation and validation on prototype of Compressor Crash Frame for Drop test, D R Panchagade, International Journal of research in engg and technology, Vol 2, No 12, pp. 1463-1471, issn 2278-0181, 2013.
15. High Speed Digital Image Correlation for Transient-Shock Reliability of Electronics, Lall, P., Panchagade, D., Iyengar, D., Shantaram, S., Schrier, H., IEEE TCPT, Vol. 32, No. 2, pp. 1-18, July 2009.

16. Damage Progression Using Speckle-Correlation and High-Speed Imaging for Survivability of Lead-free Packaging Under Shock, Lall, P., Iyengar, D., Shantaram, S., Panchagade, D., Strain Journal, Vol. 45, No. 3, pp. 267-282, June 2009.
17. Failure-Envelope Approach to Modeling Shock and Vibration Survivability of Electronic and MEMS Packaging, Lall, P., Panchagade, D., Choudhary, P., Gupte, S., Suhling, J., IEEE TCPT, Vol. 31, No. 1, pp. 104-113, March 2008
18. Smear Property Models for Shock-Impact Reliability of Area-Array Packages, Lall, P., Panchagade, D., Liu, Y., Johnson, W., Suhling, J., ASME Journal of Electronic Packaging, Vol. 129, pp. 373-381, Dec 2007.
19. Models for Reliability Prediction of Fine-Pitch BGAs and CSPs in Shock and Drop-Impact, Lall, P., Panchagade, D., Liu, Y., Johnson, W., Suhling, J., IEEE TCPT, Vol. 29, No. 3, pp. 464-474, Sept 2006.

## 16 List of Papers Published in National and International Conferences

1. Design, Development and Manufacturing of Coconut De-husking Machine, Bare S., Samuel J., Bokade P., Mekade Y., Panchagade, D., International Conference on Recent Advances in Science, Engineering and Technology, 2023.
2. Design of Overhead Crane for Pouring Molten Metal in Casting Cavity, Dr. D. R. Panchagade, Akshay B. Chhajed, International Conference on Innovations in Thermal, Design, Materials and Manufacturing Engineering, Pune, July 17-21, 2018, pp. 1-5
3. Experimental Analysis of SI Engine by HHO Gas Method, Dr. D R Panchagade, Ajinkya S. Tekade, International Conference on Innovations in Thermal, Design, Materials and Manufacturing Engineering, Pune, July 17-21, 2018.
4. Design And Optimization Of Bearing Bush Die, Dr. D.R.Panchagade, R. Nalawade, International Conference on Innovations in Thermal, Design, Materials and Manufacturing Engineering, Pune, July 17-21, 2018.
5. Fabrication of Semi-Automatic Dish Washing Machine, Dr. D R Panchagade, V. Hude, G. Awagan, A. Daundkar, Shweta Shende, B N Sadavarte, International Conference on Innovations in Thermal, Design, Materials and Manufacturing Engineering, Pune, July 17-21, 2018.
6. Design and Analysis of Torque Limiter using 3D Printed Component, Dr. D R Panchagade, A. R. Tayade, International Conference on Innovations in Thermal, Design, Materials and Manufacturing Engineering, Pune, July 17-21, 2018.
7. Design of overhead crane for pouring molten metal in casting cavity, A. Chajjed, D R Panchagade, PGCON Conference 2018, PCCOE Pune, pp.1-4
8. Miniature Turbo-Generator for Electronic Fuzes and Missiles, 4<sup>th</sup> National Conference on Wind Tunnel Testing, Virendra Kumar, V Vandana, D Panchagade, S Nema, pp. 1-6, 2015.
9. Peridynamic-Models Using Finite Elements for Shock and Vibration Reliability of Lead-free Electronics Lall P., Shantaram S., Panchagade D., Proceedings of IThERM 2010, Las Vegas, NV, June 2-5, 2010.
10. Self-Organized Mapping of Failure Modes in Portable Electronics Subjected to Drop and Shock Lall P., Gupta P., Panchagade D., 60th IEEE ECTC, pp. 1195-1208, 2010.
11. Fault-Mode Classification for Health Monitoring of Electronics Subjected to Drop and Shock, Lall, P., Gupta, P., Panchagade, D., Angral, A., Proceedings of 59th Electronic Components & Technology Conference 2009, pp. 668-681, San Diego, California USA, May 25-29, 2009.
12. Prognostics and Condition Monitoring of Electronics, Lall, P., Gupta, P., Panchagade, D., Kulkarni, M., Suhling, J., Hofmeister, J., Proceedings of Thermal, Mechanical and Multiphysics Simulation and Experiments in Micro/Nanoelectronics and Systems (EuroSimE 2009), pp. 1-14, Delft, Netherlands, April 27-29, 2009.
13. Fault-Detection and Isolation Algorithms for Health Monitoring of Electronics Subjected to Shock and Vibration, Lall, P., Gupta, P., Angral, A., Panchagade, D., Proceedings of the 2009 SEM International Congress and Exposition on Experimental and Applied Mechanics, pp. 1-19, Albuquerque New Mexico USA, June 1-4, 2009.
14. Prognostication And Health Monitoring of Electronics In Implantable Biological Systems, Lall, P., Gupta, P., Kulkarni, M., Panchagade, D., and Suhling, J., Proceedings of the ASME IMECE Conference, Boston, MA, Paper IMECE2008-68275, pp. 1-15, Nov 2-6, 2008.

15. Automating the Control and Evaluation of FPGA Testing Using SJ-BIST®, Hofmesiter, J., Mitchell, C., Lall, P., Panchagade, D., and Goodman. D., Proceedings, IEEE AUTOTESTCON, Sept 2008.
16. Design Envelopes and Optical Feature Extraction Techniques for Survivability of SnAg Leadfree Packaging Architectures under Shock and Vibration, Lall, P., Iyengar, D., Shantaram, S., Pandher, R., Panchagade, D., Suhling, J., Proceedings of 58th Electronic Components & Technology Conference 2008, pp. 1036-1047, Orlando, FL, May 27-30, 2008.
17. Time-Frequency and Auto-Regressive Techniques for Prognostication of Shock-Impact Reliability of Implantable Biological Electronic Systems, Lall, P., Gupta, P., Kulkarni, M., Panchagade, D., Suhling, J., Hofmeister, J., To be presented at the Proceedings of the 58th IEEE Electronic Components and Technology Conference, May 27-30, 2008.
18. Development of Survivability Envelopes for SnAg Leadfree Packaging Architectures Under Shock and Vibration, Lall, P., Iyengar, D., Shantaram, S., Panchagade, D., Suhling, J., Proceedings of ITherm 2008, pp. 822-835, Orlando, FL, May 28-31, 2008.
19. Survivability Assessment of SAC Leadfree Packaging Under Shock and Vibration Using Optical High-Speed Imaging, Lall, P., Iyengar, D., Shantaram, S., Panchagade, D., Suhling, J., Proceedings of the 2008 SMTA International, pp. 519-531, Orlando, FL, Aug 17-21, 2008.
20. High Speed Digital Image Correlation for Transient-Shock Reliability of Electronics, Lall, P., Panchagade, D., Iyengar, D., Shantaram, S., Suhling, J., Schrier, H., Proceedings of the 57th IEEE Electronic Components and Technology Conference, pp. 924-939, May 29 - June 1, 2007.
21. Explicit FE-Models and High Speed DIC for Transient-Dynamics of Electronics, Lall, P., Panchagade, D., Iyengar, D., Shantaram, S., Suhling, J., Schrier, H., Proceedings of the Society of Experimental Mechanics (SEM) Conference and Exposition on Experimental and Applied Mechanics, June 4-6, 2007.
22. Drop-Impact Reliability Prediction Models for Shock-Tolerant Design of Electronic Assemblies, Lall, P., Panchagade, D., Iyengar, D., Suhling, J., Surface Mount Technology Association (SMTA), September 24-28, 2006.
23. Life Prediction and Damage Equivalency for Shock Survivability of Electronic Components, Lall, P., Panchagade, D., Iyengar, D., Suhling, J., Proceedings of the ITherm 2006, May 30-June 2, 2006.
24. Life Prediction and Damage Equivalency for Shock Survivability of Electronic Components, Lall, P., Panchagade, D., Iyengar, D., Suhling, J., Proceedings of the 2006 SMTA International, pp. 361-375, Rosemont, IL, Sept 24-28, 2006.
25. Shock and Vibration Survivability Prediction using Failure Envelopes for Electronic and MEMS Packaging, Lall, P., Panchagade, D., Choudhary, P., Suhling, J., Gupte, S., Proceedings of the ASME International Mechanical Engineering Congress and Exposition, Orlando, Florida, Paper IMECE2005-82612, pp. 1-12, November 5-11, 2005.
26. Development of Survivability-Envelopes for Electronic Components in Extreme Shock and Vibration Environments, Lall, P., Panchagade, D., Choudhary, P., Suhling, J., Gupte, S., Proceedings of the International Military and Aerospace Avionics COTS conference, Portsmouth, Virginia, pp. 1-31, August 2-4, 2005.
27. Models for Shock and Vibration Survivability of Electronic and MEMS Packaging, Lall, P., Panchagade, D., Choudhary, P., Suhling, J., Gupte, S., ASME InterPACK Conference, pp. 1-12, 2005.
28. Failure-Envelope Approach to Modeling Shock and Vibration Survivability of Electronic and MEMS Packaging, Lall, P., Panchagade, D., Choudhary, P., Suhling, J., Gupte, S., Proceedings of the 55th IEEE Electronic Components and Technology Conference, pp. 480-490, June 1-3, 2005.
29. Models for Reliability of Fine-Pitch BGAs and CSPs in Shock and Drop Impact, Lall, P., Panchagade, D., Liu, Y., Johnson, W., Suhling, J., Proceedings of the ASME International Mechanical Engineering Congress and Exposition, Anaheim, CA, Paper No. IMECE2004-62317, pp. 1-10, November 13-19, 2004.
30. Models for Reliability Prediction of Fine-Pitch BGAs and CSPs in Shock and Drop-Impact, Lall, P., Panchagade, D., Liu, Y., Johnson, W., Suhling, J., Proceedings of 54th Electronic Components & Technology Conference 2004, pp. 1296-1303, Las Vegas, NV, Jun 1-4, 2004.

31. Shock-Induced Failure Prediction Model for Fine-Pitch BGAs and CSPs, Lall, P., Panchagade, D., Liu, Y., Johnson, W., Suhling, J., Surface Mount Technology Association (SMTA), pp. 472-481, 2004.
32. Shock and Drop-Impact Reliability Prediction for Fine-Pitch BGAs and CSPs, Lall, P., Panchagade, D., Liu, Y., Johnson, W., Suhling, J., Proceedings of the International Military and Aerospace Avionics COTS conference, Seattle, WA, Paper No. 3.1, pp. 1-28, August 3-5, 2004.
33. Drop-Impact Reliability of Chip-Scale Packaging In Handheld Products, Tian, G., Liu, Y., Lall, P., Johnson, W., Abderrahman, S., Palmer, M., Islam, N., Panchagade, D., Suhling, J., 2003 ASME International Mechanical Engineering Congress and Exposition, pp. 1-9, Washington, D.C., Nov 15-21, 2003.

**17 Books/Reports/General articles etc.**

**18 Invited Lectures in FDP/ STTP:**

“Higher Education in USA with 100% Scholarships” organized by Indira College of Engineering and Management, Pune 2023.

“Advanced Finite Element Analysis”, Keystone Engineering College, Pune 2016.

**19 International Conference Technical Program Committee Member / Reviewer:**

- Reviewer ASME-InterPACK
- Reviewer IEEE Transactions on Advanced Packaging
- Reviewer IEEE Transactions of Components and Packaging Technologies
- Reviewer IEEE Transactions of Electronics Packaging Manufacturing