

Biographical sketch

1. Name, Designation, Affiliation and Address

Dr. Murthy Haradanahalli S.N., Professor, Dept. of Aerospace Engineering, IIT Madras.

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2. Educational Qualifications

Sl. No.	Degree	Year	Subject	University
1	Ph.D.	2004	Aeronautics & Astronautics	Purdue Univ., West Lafayette, IN, USA
2	M.S.	2000	Aeronautics & Astronautics	Purdue Univ., West Lafayette, IN, USA
3	B.Tech.	1998	Aerospace Engineering	Indian Institute of Technology Madras

3. Professional Experience

No.	Title	Period	Organization
1	Professor	Since July, 2014	IIT Madras, Chennai
2	Associate Professor	July 2010 - July 2014	
3	Assistant Professor	January 2005 – July 2010	
4	Visiting Assistant Professor	August – December 2004	

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

No.	Name of Award/Prize	Award By	Purpose	Year
1	Young Faculty Recognition Award	IIT Madras	Good research, teaching record	2010

5. Research Interests:

Fatigue and Fracture, Damage mechanisms in metals and composites, fretting fatigue, contact mechanics and Tribology, material modeling.

6. Academic Output:

A. **Guidance:** 4 PhD completed (9 ongoing), 6 MS completed (3 ongoing), More than 20 MTech

B. **Publications:** 22 peer reviewed Journal publications, more than 50 conference proceedings, 5 book chapters.

C. **Training:** 5 different training programmes for HAL, 2 AICTE STTP courses

Peer Reviewed Journal Publications

1. Hamza Naseem, H. Murthy, "A simple thermal diffusivity measurement technique for polymers and particulate composites", *International Journal of Heat and Mass Transfer*, **137**, 2019, pp. 968-978
2. S Kumar, S Venkatachalam, K Hariharan, D Ravikumar and H S N Murthy, "Influence of inhomogeneous deformation on tensile behaviour of sheets processed through constrained groove pressing", *Journal of Engineering Materials and Technology*, **141** (4), 2019.
3. S Venkatachalam, R Banjare, H Murthy, BC Rao, "Mechanical Testing of Micro-specimens of Al6061-T6 Using DIC for Strain Measurement", *Experimental Techniques*, **43**(2), 2019, pp. 125-135.
4. S Venkatachalam, SM Khaja Mohiddin, H Murthy, " Determination of damage evolution in CFRP subjected to cyclic loading using DIC", *Fatigue & Fracture of Engineering Materials & Structures*, **41**(6), 2018, pp. 1412-1425.
5. S Venkatachalam, H Murthy, "Damage characterization and fatigue modeling of CFRP subjected to cyclic loading", *Composite Structures*, **202**, 2018, pp. 1069-1077.
6. K Palaniappan, H Murthy, BC Rao, "Production of fine-grained foils by large strain extrusion-machining of textured Ti-6Al-4V", *Journal of Materials Research*, **2017**, pp. 1-13.
7. VK Verma, H Naseem, SGS Raman, H Murthy, AN Majila, DC Fernando, " Effect of contact pressure and stress ratio on the fretting fatigue behaviour of Ti-6Al-4V", *Materials Science and Engineering: A*, **707**, 2017, pp. 647-656.
8. KJ Jobin, MN Abhilash, H Murthy, "A simplified analysis of 2D sliding frictional contact between rigid indenters and FGM coated substrates", *Tribology International*, **108**, 2017, pp. 174-185.
9. H Murthy, K Vadivuchezhian, "Estimation of friction distribution in partial-slip contacts from reciprocating full-sliding tests", *Tribology International*, **108**, 2017, pp. 164-173.
10. PS Ghangrekar, R Banjare, BC Rao, H Murthy, "Tensile testing of Al6061-T6 micro-specimens with ultrafine grained structure derived from machining-based SPD process", *Journal of Materials Research*, **29** (11), 2014, pp. 1278-1287.
11. MN Abhilash, H Murthy, "Finite Element Analysis of 2-D Elastic Contacts Involving FGMs", *International Journal for Computational Methods in Engineering Science and Mechanics*, **15**(3), 2014, pp. 253-257.
12. YS Rammohan, H Murthy, "Three dimensional finite element analysis of partial slip contacts subjected to combined loading", *Finite Elements in Analysis and Design*, **56**, 2012, pp. 9-19.

13. K Vadivuchezhian, S Sundar, H Murthy, "Effect of variable friction coefficient on contact tractions", *Tribology International*, **44** (11), 2011, pp. 1433-1442.
14. S. Srinivasan, D.B. Garcia, M.C. Gean, H. Murthy & T.N. Farris, "Fretting Fatigue of Laser Shock Peened Ti-6Al-4V", *Tribology International*, **42**(9), 2009, pp. 1324-1329.
15. H. Murthy, G. Mseis and T. N. Farris, "Life Estimation of Ti-6Al-4V Specimens Subjected to Fretting Fatigue and Effect of Surface Treatments", *Tribology International*, **42**(9), 2009, pp. 1304-1315.
16. H Murthy, G Gao, TN Farris, "Fretting fatigue of single crystal nickel at 600 C", *Tribology International*, **39** (10), 2006, pp. 1227-1240.
17. H Murthy, DB Garcia, JF Matlik, TN Farris, "Fretting fatigue of single crystal/polycrystalline nickel subjected to blade/disk contact loading", *Acta Astronautica*, **57** (1), 2005, pp. 1-9.
18. Rajeev, P. T., Murthy, H. & Farris, T. N., "Load History Effects on Fretting Contacts of Isotropic Materials", *ASME Journal of Engineering for Gas Turbines & Power*, **126**, 2004, pp. 385-390.
19. H Murthy, G Harish, TN Farris, "Efficient modeling of fretting of blade/disk contacts including load history effects", *ASME Journal of Tribology*, **126** (1), 2004, pp. 56-64.
20. Murthy, H., Rajeev, P.T., Okane, M & Farris, T.N., "Development of Test Methods for High Temperature Fretting of Turbine Materials Subjected to Engine-Type Loading", *Fretting Fatigue: Advances in Basic Understanding and Applications*, *ASTM STP 1425*, 2003, pp. 273-288.
21. IG Goryacheva, H Murthy, TN Farris, "Contact problem with partial slip for the inclined punch with rounded edges", *International Journal of Fatigue*, **24** (11), 2002, pp. 1191-1201.
22. Murthy, H., Farris, T.N. & Slavik, D.C., "Fretting Fatigue of Ti-6Al-4V Subjected to Blade/Disk Contact Loading", *Developments in Fracture Mechanics for the New Century, 50th Anniversary of JSMS*, 2001, pp. 41-48.