

## FACULTY CURRICULUM VITAE

### Vinod Arya

(Date last updated: 8/01/16)

Work Phone Number: 972-338-1375

Office Number and Building: DAL2-226

Work E-Mail Address: vinod.arya@untdallas.edu

UNT Dallas Campus

7400 University Hills Blvd.

Dallas, TX 75241

### AREA OF EXPERTISE

I have been teaching various topics in Mathematics/Applied Mathematics for more than 35 years. My research has been mostly in the area of Applied Mathematics with significant applications in the fields of engineering (aerospace, nuclear, mechanical, and civil).

### EDUCATION

Year	Degree	Major	Institution
1975	Ph.D.	Mathematics	Indian Institute of Technology, India
1970	M.Sc.	Mathematics	Meerut University, Meerut, India
1968	B.Sc.	Science	Meerut University, Meerut, India

### PROFESSIONAL EXPERIENCE

Begin/End Year	Place of Employment	Rank / Job Title
2011	University of North Texas Dallas Department of Mathematics and Information Sciences, Dallas, Texas.	Professor
2010/2011	University of North Texas Dallas Department of Mathematics and Information Sciences, Dallas, Texas.	Professor and Chair
2006/2010	Fayetteville State University, Department of Mathematics and Computer Science, Fayetteville, North Carolina	Professor and Chair
2004/2006	Virginia Union University, Department of Natural Sciences and Mathematics, Richmond,	Professor and Chair

## SCHOLARSHIP

### Refereed Journal and Proceedings Articles (Published):

1. Submitted a paper entitled, " Computational Analysis of Inelastic Response of Ceramic Matrix Composites" for publication in the International Journal of NonLinear Mechanics, Dec. 31, 2012.
2. Finite Element Analysis of Structural Engineering Problems Using a Viscoplastic Model Incorporating Two Back Stresses (with G. R. Halford). ASME Journal of Engineering for Gas Turbines and Power, 117, 2, pp. 377-383, 1995.
3. Efficient and Accurate Explicit Time-Integration Algorithms with Application to Viscoplastic Models. International Journal of Numerical Methods in Engineering, 39, pp. 261-279, 1996.
4. Large Displacement Structural Durability Analyses of Simple Bend Specimen Emulating Rocket Nozzle Liners (with G. R. Halford and L. J. Westfall). AIAA Journal of Propulsion and Power. 12, 1, 1996.
5. Structurally-Compliant Rocket Engine Combustion Chamber - *Experimental/ Analytical Validation* (with R.S. Jankovsky, J. M. Kazaroff, and G.R. Halford). AIAA Journal of Spacecraft and Rockets, 32,4, pp. 645-652, 1995.
6. Kinetics of Oxidation and Cracking and Finite Element Analyses of MA956 and MA956/Sapphire Composite System (with K. N. Lee, G. R. Halford and C. A. Barrett). Metallurgical and Materials Transactions A, 27A, 3279-3291, Oct. 1996.

### Non-Refereed Articles (Published)

1. Numerical Analysis of Creep-Damage in Structural Components. (with Shantaram S. Pai). Proceeding of International Conference on Computational Engineering Sciences, 2005.
2. Durability Effect of Repeated Thermal Decay of Stirling Converter Heater Head Operating Temperature (with Dr. G.R. Halford). NASA-TM, 2005.
3. Computational Analysis of Inelastic Response of Ceramic Matrix Composites (with Dr. S. S. Pai). Proceedings of 2<sup>nd</sup> Joint International Conference of Computational Engineering, Vancouver, Canada, 2008.

### Manuals (Published)

1. FLAPS (Fatigue Life Analysis Programs) – Computer Programs to Predict Cyclic Life Using the Total Strain Version of StrainRange Partitioning and Other Life Prediction Methods. Users' Manual and Example Problems. Version 1.0, 2003.
2. FLAPS (Fatigue Life Analysis Programs) – Computer Programs to Predict Cyclic Life Using the Total Strain Version of StrainRange Partitioning and Other Life Prediction Methods. Users' Manual and Example Problems. Version 2.0, 2007.