

RET Participants

- **Project: Expansive Soil Heave Damage and Earthquake Research**

Professor: [Anand Puppala](#)

Dr. Puppala's research areas of interest are advanced soil testing and interpretation, soil stabilization, soil reinforcement, pavement materials characterization, and waste management studies. He has published several articles in ASCE Geotechnical Journal, ASTM Soil Testing Journal, ASTM Special Technical Publications, Transportation Research Board Records, International Conferences on Soil Mechanics Related Topics, In Situ Testing Proceedings, ASCE conferences. He is a member of ASCE bituminous materials committee, TRB Bridges and Foundation's committee, and TRB Soils and Rock Instrumentation committee.

RA: Dr. Sireesh Saride, Aravind Pedarla

2008 STEM Teachers:

- David Edwards, Academy High School, IrvingISD (IPC, Physics)
- Stephanie Reed, Timberview High School, MansfieldISD (Biology)

2009 STEM Teachers:

- John Davis, Mansfield Legacy High School (Physics)
- Jennifer Rosario, Grand Prairie 9th Grade Center(Math)

- **Project: Air Dispersion Modeling for Airborne Terrorism Releases in Dallas- Fort Worth**

Professors: [Melanie Sattler](#)

Dr. Sattler is chair of the Science Advisory Committee for the Texas Environmental Research Consortium, and a member of Air & Waste Management Association, American Chemical Society, Association of Environmental Engineering and Science Professors, and the American Society for Engineering Education.

[Yvette Weatherton](#)

Dr. Weatherton joined UTA in September 2007. She teaches undergraduate environmental engineering courses (Principles of Environmental Engineering and Science, Environmental Analysis Laboratory). Prior to joining UTA, she served as a faculty member in civil and environmental engineering for twelve years, a consultant on an air toxics monitoring project, and director/coordinator of a number of engineering recruitment and retention programs.

RA: Sulak Sumitsawan, Benjamin Afotey

2008 STEM Teachers:

- Joel Hernandez, South Grand Prairie High School, Grand Prairie, Texas (Chemistry)
- Brooke Johnson, MacArthur High School,, Irving ISD (IPC, Biology)

2009 STEM Teachers:

- Brooke Johnson, MacArthur High Achool, Irving ISD (IPC, Biology)
- Celeste Mullis, Mansfield Legacy High School (Chemistry)

- Blake Wade, Kennedale High School (Chemistry)
- Robert Wright, S. Grand Prairie 9th Grade Center (Biology)

- **Project: Effect of Extreme Wind Loads on Structures**

Professor: [Nur Yazdani](#)

Dr. Yazdani is well known for his research on hazard mitigation of coastal construction and concrete/timber bridge design and repair. His research includes the in-home hurricane shelter technology, FDOT concrete bridge technology, and utilization of steel fibers in post-tensioned concrete bridges.

RA: Tanvir Manzur

2008 STEM Teachers:

- Danielle Reynolds, Duncanville High School, Duncanville, Texas (Physics)
- Velvet Dow, South Grand Prairie High School, Grand Prairie, Texas (Math)

2009 STEM Teachers:

- Susan Patterson, Duncanville High School, Duncanville ISD (Geometry, Math Models)
- Claudia Smith, Martin High School, Arlington ISD (Geometry)
- William Jenkins, James Bowie High School, Arlington ISD (Calculus, Statistics)

- **Project: Hydrology: Planning for Extreme Events**

Professor: [John McEnergy](#)

Prior to joining The University of Texas at Arlington, Dr. McEnergy spent 4 years at Texas Tech University. Dr. McEnergy has also worked with the National Oceanic and Atmospheric Administration in the NWS Office of Hydrology as well as several years in consulting engineering. Dr. McEnergy is a member of the American Water Resources Association, the American Geophysical Union, and the American Society for Engineering Education.

RA: Aditya Khandekar

2008 STEM Teachers:

- Rick Needham, Duncanville High School, Duncanville, Texas (Physics)

2009 STEM Teachers:

- Jennifer Cook, Kennedale High School, Kennedale ISD (Calculus)
- David Edwards, The Academy of Irving, Irving ISD (IPC, Physics)
- Miral Kawasmi, MacArthur High School, Irving ISD (Science)

- **Project: Hacker Detection: Evaluation and Improvement**

Professor: [Matt Wright](#)

Info: Matt Wright currently co-directs the iSec research lab, and has research interests in security and privacy. He is interested in systems providing network privacy, location privacy, security and privacy in ubiquitous computing, and secure P2P systems.

RA: Kush Kothari

2008 STEM Teachers:

- William Flynn, Timberview High School, Mansfield ISD (Calculus)
- William Huckeba, Academy High School, IrvingISD(IPC)

2009 STEM Teachers:

- Vicki Buffalo, Grand Prairie 9th Grade Center, Grand Prairie ISD (Math)
- Eric Manuel, Duncanville High School, Duncanville ISD (Electronics)
- Rick Needham, Duncanville High School, Duncanville ISD (IPC, Physics)
- Silas Robinson, Martin High School, Arlington ISD (Algebra or Geometry)

- **Project: “Smart” Evacuations**

Professor: [Bonnie Boardman](#)

Info: Bonnie Boardman is an Assistant Professor of Industrial and Manufacturing Systems Engineering at The University of Texas at Arlington. Her primary research interests are in the logistics and resource planning disciplines. Dr. Boardman holds a B.S. and Ph.D. in Industrial Engineering from The University of Arkansas and an M.S. in Industrial Engineering from Texas A&M University. Dr. Boardman is active in numerous technical and professional organizations. She is the student advisor for the UTA Alpha Pi Mu, the National Industrial Engineering honor society and a co-sponsor of the APICS student chapter, the Educational Society for Resource Management. She also holds the position of Newsletter Editor for the Greater Fort Worth Chapter of APICS.

2008 STEM Teachers:

- Vicki Buffalo, Grand Prairie High School, Grand PrairieISD (Algebra)

- **Project: Power Grid Failure**

Professor: Wei-Jen Lee

Info: Dr. Lee is conducting research at the Energy Systems Research Center, UT Arlington. He has been involved in research on the power system phenomena under steady state, stressed, and emergency conditions and the advanced microcomputer-based equipment for power system monitoring, measurement, protection, and control. He is also involved in the design and development of a new power system simulation laboratory.

2009 STEM Teachers:

- Joe Feldstein, James Bowie High School, Arlington ISD (Geometry)
- Joel Hernandez, Duncanville High School, Duncanville ISD (Chmistry)

- Danielle Reynolds, Duncanville High School, Duncanville ISD (Physics)