

**Nevada DEPSCoR**  
**Department of Defense Projects:**

**2005**

Sushil Louis, University of Nevada, Reno - *Combining Learning and Human Modeling for Virtual at Sea Training*

Yanyao Jiang, University of Nevada, Reno - *Development of a Novel Approach for Fatigue Life Prediction of Structured Materials*

**2004**

Robert Vidmar, University of Nevada, Reno - *Optical Measurements of Air Plasma (AFOSR)*

Kwang Kim, University of Nevada, Reno - *Artificial Muscle-Driven Actively Shaped and Self-Oscillatory Propulsor Blades (ONR)*

**2003**

Gale Craviso, University of Nevada, Reno - *Exploring Non-Thermal Radiofrequency Bioeffects for Novel Military Applications (AFOSR)*

Richard Wirtz, University of Nevada, Reno - *Structurally Efficient Anisotropic Organized Reticulated Structures For Cooling Of Electronics And Sensors (AFOSR)*

**2002**

Brendan O'Toole, University of Nevada, Las Vegas - *Development of Computational Tools for the Design and Optimization of Lightweight Armor*

Bill Hu, - Desert Research Institute, *Study on Multi-Scale Heterogeneity for Prediction of the Fate and Transport of TNT Compounds in Groundwater*

**2001**

Marcin J. Szumowski, Desert Research Institute - *Boundary Layer Marine Stratus: Diurnal Variability in Microphysics*

Qiang Ji, University of Nevada Reno - *Information Fusion with Dynamic Probabilistic Bayesian Networks*

James M. Henson, University of Nevada Reno - *Understanding Clutter and Texture in Parametric Radar Imagery of Terrestrial Targets*

George Bebis, University of Nevada Reno and Georg Mauer, University of Nevada, Las Vegas - *Automatic Target Recognition Using Algebraic Junctions of Views*

Andrzej M. Trzynadlowski, University of Nevada Reno - *Noise Mitigation in Electric AC Drive Systems by Random Pulse Width Modulation*

Faramarz Gordaninejad, University of Nevada Reno - *Magneto-Rheological Polymeric Gel Dampers For Vibration Control Of Mechanical Systems*

## 2000

John Hallett, Desert Research Institute - *Cirrus Characterization for Laser Propagation and Global Modeling*

Darko R. Koracin, Desert Research Institute - *Diurnal Effects Contributing to the Modification of the Coastal Marine Atmospheric Layer*

Eric V. McDonald, Desert Research Institute - *Basic Research Among the Soil-Hydrologic-Biologic System Common to Desert Piedmonts*

Guohong Duan, Desert Research Institute - *Investigation and Simulation of Streambank Erosion Processes in the Upper Jordan River, Utah*

Qiang Ji, University of Nevada, Reno - *Noninvasive Techniques for Monitoring Human Fatigue*

Richard A. Wirtz, University of Nevada, Reno - *Multi-Functional Materials for Thermal Control of Sensors and Electronics*

## 1999

Xiaolong Hu, Desert Research Institute - *Reactive Chemical Transport in Natural Media: Heterogeneity, Nonstationarity, and Uncertainty*

Carl Looney, University of Nevada, Reno - *Soft Fusion Via Neuro-Fuzzy And Case Based Decision Making*

David Shelton, University of Nevada, Las Vegas - *Bacteriorhodopsin Optoelectronic Synapses For Artificial Neural Networks*

Raj Siddharthan, University of Nevada, Reno - *Pavement Material Characterization And Modeling Of Long-Term Airfield Pavement Performance*

Rama Venkat, University of Nevada, Las Vegas - *Molecular Beam Epitaxy Of Nitredel: Theoretical Modeling And Process Simulation*

Richard Wirtz, University of Nevada, Reno - *High Performance Woven Mesh Heat Exchange*

**1997 and 1998**

Faramarz Gordaninejad, University of Nevada, Reno - *A Novel Magnetorheological Shock Absorber for Vibration Control*

Steven Chai, Desert Research Institute - *Modeling the Dispersion of Vapor and Aerosol Particulates in the Atmospheric Boundary Layer*

Melanie Wetzel, Desert Research Institute - *Forecast Model Applications of Satellite-derived Cloud Parameters*

Bruno Bauer, University of Nevada, Reno - *Stabilization and Confinement of Hot, Dense, High-Beta Plasma*