

# Alabama NASA EPSCoR Awards 2006 - 2016

Award Institution	Principal Investigator(s)	Project Title	Type of Award	Award Start Date	Award End Date
Alabama A&M	Dr. Tianxi Zhang	MHD Simulation of Non-Flux Rope CMEs Associated with Impulsive SEP Events	NASA Seed Grant (RID)	06/01/08	05/31/12
Alabama A&M	Dr. Aschalew Kassu, Dr. Anup Sharma	On-Chip Nanostructure Surface Plasmon Enhanced Raman Spectroscopy Sensor for Space Applications (Total \$250K)	MSI Faculty Engagement Competition	05/01/12	04/30/14
Auburn University	Dr. Maria Auad	Shape Memory Behavior Induce by UV Light	NASA Seed Grant (RID)	01/01/11	05/31/12
Auburn University	Dr. Luke J. Marzen	An Investigation of Wet-target Craters on Mars	NASA Seed Grant (RID)	06/01/06	05/31/08
Auburn University	Dr. George Flowers	"Vibration Characterization and Control of Composite Rotor Systems for Propulsion and Power"	NASA Seed Grant (RID)	08/01/03	01/30/07
Auburn University	Dr. Hareesh Tippur	"Development of Prepreg and Out-of-Autoclave Process for Z-Aligned Carbon Nanofiber Toughened Lightweight Composites"	Cooperative Agreement Notice FY 10 (CAN)	09/01/10	08/31/13
Auburn University	Dr. Majid Beidaghi	Dielectric Polymer Nanocomposites Based on Novel Two-Dimensional (2D) Transition Metal Carbides	NASA Seed Grant (RID)	02/01/16	01/31/17
University of Alabama	Dr. Amy Lang	Microgeometrics for Boundary Layer Control	NASA Seed Grant (RID)	06/01/08	05/31/11
University of Alabama	Dr. Timothy Masterlark	Exploring the Interior of an Active Volcano with Satellite Radar Data and Numerical Models	NASA Seed Grant (RID)	01/01/11	05/31/12
University of Alabama	Dr. Jaber Abu Qahouq	Single-Sensor Single-Controller Multi-Channel Solar PV Distributed Solar Grid System with Plug and Play Capability for Space Applications	NASA Seed Grant (RID)	01/01/11	05/31/12
University of Alabama	Dr. Jaber Abu Qahouq	Distributed Energy Storage System Architecture and Control for Longer and Healthier System Life and Energy Sharing for Space and Vehicle Applications	NASA Seed Grant (RID)	06/01/13	05/31/16
University of Alabama	Dr. Gregory Thompson	Elucidation of Macro-alloy Treatments in High Temperature Shape Memory Alloys	NASA Seed Grant (RID)	06/01/08	05/31/10
University of Alabama	Dr. Gregory Thompson, Dr. Mark Weaver	High Temperature Shape Memory Alloys for Improved Efficiency in Aeronautic Turbomachinery	Cooperative Agreement Notice FY 09 (CAN)	09/12/09	09/11/13
University of Alabama	Dr. Kevin Chou, Dr. Viola Acoff, Dr. Leila Ladani	Electron Beam Additive Fabrication Technology for Rapid Manufacturing of Space Vehicle Hardware	Cooperative Agreement Notice FY 11 (CAN)	08/01/11	07/31/14
University of Alabama	Dr. Ajay Agrawal, Dr. Brian Fisher	Experimental Investigation of Noise and Thermo-acoustic Instabilities in Low-Emission, High-Efficiency Combustion Systems for Aviation	Cooperative Agreement Notice FY 13 (CAN)	10/01/13	09/30/16
University of Alabama	Dr. Jaber Abu Qahouq	Distributed Energy Storage System Architecture and Control for Longer and Healthier System Life and Energy Sharing for Space and Vehicle Applications	NASA Seed Grant (RID)	06/01/13	05/31/16

University of Alabama	Dr. Lin Li	Investigation of Microstructure and Mechanical Property Relationship of Inconel 718 Fabricated by Selective Laser Melting Using Combined In-situ Characterization Measurements and Phase Field Crystal Plasticity Simulations	NASA Seed Grant (RID)	02/01/16	01/31/17
University of Alabama	Dr. Vinu Unnikrishnan	Influence of High Temperature on Field Emission in Vacuum Nano-Electronics for Space Applications	NASA Seed Grant (RID)	02/01/16	01/31/17
University of Alabama in Huntsville	Dr. John Gregory	Support for Mini-Travel Grants to visit NASA Centers and Student Interns	NASA Seed Grant RID Augmentation	06/01/11	05/31/13
University of Alabama in Huntsville	Dr. John Gregory (UAH), Drs. K.T. Hsiao, Martin Parker & Anh-Vu Phan (USA), Dr. Mahesh Hosur (TU), Dr.	Development of Prepreg and Out-of-Autoclave Process for Z-Aligned Carbon Nanofiber Toughened Lightweight Composites	Cooperative Agreement Notice FY 10 (CAN)	09/01/10	08/31/13
University of Alabama in Huntsville	Dr. John Gregory	High Temperature Shape Memory Alloys for Improved Efficiency in Aeronautic Turbomachinery	Cooperative Agreement Notice FY 09 (CAN)	09/12/09	09/11/13
University of Alabama in Huntsville	Dr. John Gregory Dr. Junpeng Guo	On-Chip Nanostructure Surface Plasmon Enhanced Raman Spectroscopy Sensor for Space Applications (Total \$250K)	MSI Faculty Engagement Competition	05/01/12	04/30/14
University of Alabama in Huntsville	Dr. John Gregory	Electron Beam Additive Fabrication Technology for Rapid Manufacturing of Space Vehicle Hardware	Cooperative Agreement Notice FY 11 (CAN)	08/01/11	07/31/14
University of Alabama in Huntsville	Dr. Junpeng Guo	Nano-Plasmonic Sensors for Space Exploration	NASA Seed Grant (RID)	06/01/08	05/31/12
University of Alabama in Huntsville	Dr. Lior Burko	Towards a Wave Extraction Method for Numerical Relativity Simulations on Femtosecond Frequency Comb Lasers	NASA Seed Grant (RID)	08/03/09	05/31/12
University of Alabama in Huntsville	Dr. Lingze Duan	High-Precision Remote Measurement of Target Kinematics based on Femtosecond Frequency Comb Lasers	NASA Seed Grant (RID)	01/01/11	05/31/12
University of Alabama in Huntsville	Dr. Lingze Duan	Compact, low-cost semiconductor lasers with ultra-high frequency stability	NASA Seed Grant (RID)	02/01/13	01/31/16
University of Alabama in Huntsville	Dr. George Nelson	Assessing Solid Oxide Electrolyzer Degradation Driven by Gas Consumption	NASA Seed Grant (RID)	02/01/13	05/31/16
University of Alabama in Huntsville	Dr. Sarma Rani	Prediction of Combustion Dynamics in Rocket Engines through Computational Enhancements in Loci-CHEM	NASA Seed Grant (RID)	02/01/13	08/31/16
University of Alabama in Huntsville	Dr. Ming Sun	Monsters On Diets? --- Activity of the Most Massive Super-Massive Black Holes	NASA Seed Grant (RID)	02/01/16	01/31/17
University of Alabama in Huntsville	Dr. Sarma Rani	Large Eddy Simulations of Complex Turbulent Flows Using Non-Dissipative, Temporally and Spatially High-Order, and High Efficiency Unstructured Grid Flow Solver	NASA Seed Grant (RID)	02/01/16	01/31/17
University of South Alabama	Dr. K.T. Hsiao, Dr. Martin Parker, Dr. Anh-Vu Phan (USA)	Development of Prepreg and Out-of-Autoclave Process for Z-Aligned Carbon Nanofiber Toughened Lightweight Composites	Cooperative Agreement Notice FY 10 (CAN)	09/10/10	08/31/13
University of South Alabama	Dr. T.Grant Glover	Carbon Dioxide Adsorption in Composite Adsorbent-Supported Ionic Liquid Materials	NASA Seed Grant (RID)	04/01/13	03/31/16
University of South Alabama	Dr. T.Grant Glover	Development of Dust Free Binders for Spacecraft Air Revitalization Systems	Cooperative Agreement Notice FY 16 (CAN)	10/1/2016	09/30/19
Tuskegee University	Dr. Mahesh Hosur	"Development of Prepreg and Out-of-Autoclave Process for Z-Aligned Carbon Nanofiber Toughened Lightweight Composites"	Cooperative Agreement Notice FY 10 (CAN)	09/01/10	08/31/13