Grambling State University

Dr. Connie Walton
Director of Sponsored Programs/Professor

www.nasa.gov
GRAMBLING STATE UNIVERSITY

- President- Richard Gallot Jr., JD
- Established 1901 in Grambling Louisiana
- Accredited by the Southern Association of Colleges and Schools Commission on Colleges
- 4863 students
- Student body represents 43 states and 25 countries
- Offer bachelors, masters, doctoral degree programs

Prepares graduates
- to compete and succeed in careers
- to contribute to the advancement of knowledge
- to lead productive lives as informed citizens
- to be committed to improving the quality of life of others
ACADEMIC PROGRAMS

College of Business

Accounting, Computer Information System, Economics, Management, Marketing

Accredited by Association to Advance Collegiate Schools of Business

College of Education and Professional Studies

Social Work, Nursing, Mass Communication, Criminal Justice, Teacher Preparation, Kinesiology, Leisure Studies, Sports Administration

College of Arts & Sciences

Liberal Arts Programs

Child Development, English, History, Music, Political Science, Psychology, Social Sciences, Public Administration

Accreditations- Network of Schools of Public Policy Affairs & Administration, National Association of Schools of Music, National Association of Schools of Theater

STEM Programs

Biology, Chemistry, Computer Science, Engineering Technology, Mathematics/Physics

Accreditations- ABET-ETAC, ABET-CAC, Committee on Professional Training- American Chemical Society
FACULTY RESEARCH

BIOMEDICAL
- Toxicogenomics
- Gene Interactions
- DNA Replication, Damage and Repair
- Mechanisms of Cancer Repair

CYBERSECURITY AND BIG DATA
- Cognitive Radio Network Security
- High Performance GP-GPU Computing in Federated Hadoop Systems
- Deep Learning & Anomaly Detection
- Game Models
- Backpropagation Models-Neural Networks
- Cloud Data Security
FACULTY RESEARCH

MATERIAL SCIENCE
- High Performance Polymer Synthesis
- Synthesis of Liquid Crystalline Materials
- Preparation of Composites
- Characterization of Nanoporosity in Polymers
- Vacancy defects in Metals
- Micro-hardness Analysis
- Magnetization Studies
- Crystal Phase Composition

MATHEMATICAL BIOLOGY
Deterministic Mathematical and Stochastics Models to Study the Spread of Infectious Diseases
- Malaria
- Typhoid
- Zika Virus
FACULTY RESEARCH

ENGINEERING TECHNOLOGY

- Construction Management
- Computer-Aided Drafting Design
- Architectural Drafting Design
- Electronics Engineering Technology

MOLECULAR MODELING

- Quantum Mechanics and Monte Carlo Based Computational methods to Study Charge Transport and Impact on Structural Properties of Polymers
- Study of Molecular Transport in Nanostructures using Stochastic Models
PAST AND CURRENT PERFORMANCE

NASA

- NASA Minority University Research and Education Project (MUREP) Educator Program Participant-Minority participation for future NASA workforce: Curriculum Improvement, 2 year to 4-year colleges bridge, University-NASA Research Centers Collaboration, 2009-2014, $400,00, Dr. N. Seetala, PI, Award # NNX09AU97G

- Polymerizable Monomer Reactant (subcontract with Clark Atlanta University and John Glenn Research Center), 2003-2008, $244,000, Dr. D. Hubbard, PI, Award # SP-03-04-30403-001

- Synthesis of Materials that Exhibit Nonlinear Optic Behavior, Subcontract with University of New Mexico-Highlands, 200-2003, $30,000, Dr. C. Walton, PI

- Synthesis of a Thermally Stable Polyamide for Nonlinear Optic Applications, 1998-2000, $240,000, Dr. C. Walton, PI
PAST AND CURRENT PERFORMANCE

NATIONAL SCIENCE FOUNDATION

- NSF-Experimental Program to Stimulate Competitive Research (EPSCOR): Consortium for Innovation in Manufacturing and Materials, 2015-2020, $400,000, Dr. N. Seetala, Dr. P. DeRosa, Co-PI’s, Award # 1541079

- NSF HBCU-Undergraduate Participation: Supplemental Award, Synthesis of Biodegradable Polymers, 2016-2018, $120,000, Dr. C. Walton, PI

- NSF HBCU-Undergraduate Participation: Center for Mathematical Achievement in Science & Technology 2005-2018, $4.4 Million, Dr. C. Walton, PI, Award # 1137590

PAST AND CURRENT PERFORMANCE

AIR FORCE RESEARCH LABORATORY (AFRL)

2005 - 2020 $3.8 Million
Award #s W911NF-12-R-0009, FA8650-13-C-5800, FA8650-05-D-1912

- Design and Implementation of a Cognitive Radio Cloud Network, Dr. Y. Reddy, PI, AFRL
- Robotics Training for High School Students & Teachers, Dr. Y. Reddy, PI, AFRL
- High Performance GP-GPU Computing in Federated Hadoop Systems, Dr. Y. Reddy, PI, AFRL
- Advanced Ceramic Materials Processing and Characterization Using Position Lifetime Spectroscopy, SEM, Micro-hardness, and FT-IR, Dr. N. Seetala PI, AFRL
- Advanced Nano-Reinforced Composite Materials, Dr. N. Seetala PI, AFRL
- Synthesis of Polyimides to be used in the Fabrication of a Low Driving Voltage Electro-Optic Modulator, USAF, Office of Scientific Research, 2001-2004, $260,000, Dr. C. Walton, PI
PAST AND CURRENT PERFORMANCE

DEPARTMENT OF ENERGY

- DOE-EFRC: Center for Atomic Level Catalyst Design of Nano-Catalysts, 2009-2014, $100,000, Dr. N. Seetala PI, Award# DE-SC0001058

- DOE: Development of low cost membranes for H₂/CO₂ separation in WGS reactors, 2007-2011, $200,000, Dr. N. Seetala, Award# DE-FG26-07NT43064.

LOUISIANA BIOMEDICAL RESEARCH NETWORK
2015-2020 Award Period, $719,524

- Project I- Research on the toxicity of PCP in gene expressions in hepatocyte culture, Dr. W. Dorsey PI

- Project II- Understanding the Cellular Mechanisms that lead to Non-Alcoholic Fatty Liver Disease Development & Progression, Dr. P. Kim PI
MATERIAL SCIENCE INSTRUMENTATION

Positron Lifetime Spectroscopy, Differential Scanning Calorimeter/Thermal Gravimetric Instrument, Thermomechanical Analysis Instrument, FTIR’s, UV Visible Spectrophotometer, Atomic Absorption Spectrometer, Gas Chromatography/Mass Spectrometer, Continuum FTIR Microscope
MATERIAL SCIENCE INSTRUMENTATION

- FTIR, UV Vis, AA, GC/Mass Spectrometer
- SQUID Magnetometer
- Polarizing Optical Microscope Equipped with Hot Stage
- Vibrating Sample Magnetometer
- Scanning Electron Microscope (SEM), Energy Dispersive X-ray Spectrometer (EDXS) for Elemental Spot Analysis
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