



NORTH CAROLINA AGRICULTURAL
AND TECHNICAL STATE UNIVERSITY

***DIVISION OF RESEARCH AND
ECONOMIC DEVELOPMENT***

Barry L. Burks

Vice Chancellor for Research and Economic Development

Board of Trustees University Affairs Committee

February 17, 2017

AGGIES DO



***Advanced Computation Resource (ACR) Center
Request to Establish***

Center Mission

- Provide intellectual leadership for computationally intensive research & teaching
 - » Organize workshops and conferences
 - » Develop consortia
 - » Support collaboration in research and education
- Serve as a focal point, via guidance and research partnerships, to faculty & students who require scalable computational and visualization resources in the classroom or the lab

Center Objectives

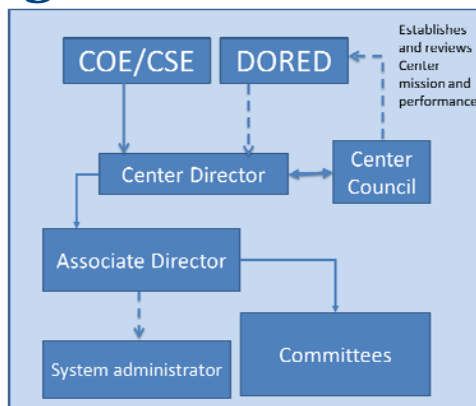
- **Research Development**
 - » Establish a campus-wide accessible computational resource, including:
 - High performance clusters
 - 3D visualization system
 - Work stations
- **Intellectual Leadership**
 - » Promote visibility, student engagement, and faculty participation in HPC research & activities
 - Via training, workshops, consortia
 - » Establish guidelines for and grow recognition of Modeling and Simulation (M&S) capabilities at N.C. A&T
- **Education and Outreach**
 - » Provide expertise, training, and support to faculty & students for computational disciplines and integration of computational M&S into non-computational disciplines

Center Resources

▪ Personnel

- » Dr. Marwan Bikdash, Professor and Chair, Department of Computational Science and Engineering will serve as Interim Director
 - CSE will hire a new faculty member: 50% of his/her time will be spent as faculty member and 50% as Center Director (funded by DORED)
- » Dr. Kenneth Flurchick, Associate Professor in CSE and Physics will serve as Associate Director
 - Will be provided partial support funded by DORED and grants
- » System Administrator, new hire to be funded by DORED and after ACR Center is well established will transition to Information Technology Services

Organization



▪ ACES Center is a collaborative effort

- » **Director:** Promotion, vision, funding, administration
- » **Associate Director:** Technology, design and operation, hardware and software
- » **System Administrator:** Maintaining and administering Center resources
- » **Center Council:** DORED + stakeholders + Director (+ senior staff)
- » **Committees:**
 - Resource Allocation
 - Resource Management
 - Planning, Projects, and Student Support & Outreach Committees will form as needed

Center Hardware Resources

- **Existing Computational resources**

- » *athena* (CRAY)
- » *hermes* (Sun blade)
- » Hadoop cluster
- » Mid-range systems for Graphical User Interface-supported tasks
 - *atlas* (lab intranet)
 - *prometheus* (campus-wide network)
- » Visualization lab and 3-D stereovision display system

- **Future additions and expansions will be needed – grant funded**

Approval Process

- **Request to Plan**

- » Approved by Chancellor's Cabinet 1/23/2017
 - Notification sent to UNC GA and now provided to BOT

- **Request to Establish**

- » Approved by Chancellor's Cabinet 2/6/2017
- » **BOT Action**
 - Approve N.C. A&T's [Advanced Computation Resource Center](#)

