Overview of the Organization

The SEAM mission is to develop revolutionary shape engineering methodologies through hardware and software support infrastructures to address Modernization, Maintenance, Repair and Overhaul (MRO) needs for aerospace, defense and energy industry. We rapidly supply services leading to regulations-approved components and assembly manufacturing. We lend support through digitally enabled cutting-edge technologies in shape engineering and advanced manufacturing. Most importantly we provide engineering and design support to industry such that Oklahoma can establish its position in model-based design, manufacturing and metrology critical to the national infrastructure in advanced manufacturing.

Recent Highlights

- We won a contract through the state’s Economic Development Generating Excellence (EDGE) initiative in 2008. This furthered our research efforts building upon expertise gained by more than a dozen NSF grants, and several USAF and FAA contracts.
- We developed a unique business model: a research center integrated with a private corporation that markets the technologies developed at the center. The private corporation (SEAM Aero, LLC) has procured contracts from American Airlines Repair, FAA, Northrop-Grumman, Allen and Associates, Pryor Machines, and ProFab and the SEAM Center procured additional grants/contracts from Tinker AFB, Sam Noble Museum, DEPSCoR and NSF.
- We have procured cutting-edge equipment valued at more than $1 Million to help us in our R&D.

Activities Planned for 2014

We will be working towards establishing a satellite center of excellence that will support the Non-Partisan Organization (NPO’s) efforts in revitalizing manufacturing in the US. To this end, we seek to make strategic hires that will support the areas of manufacturing analytics and model-based systems. Unification of CAD, manufacturing and metrology data through standard support-Platforms is a very important research mission for this academic year.
Linkages and Partnerships
We will partner with North Carolina State University, Clemson University and several small and large manufacturers in Oklahoma. Several labs within OU will be connected using the structure shown below.

Recent Publications and Presentations

Impacts and Outcomes of SEAM
The schematic captures our capabilities. We aim to provide services to smaller companies so as to improve their competitiveness in bidding for grants with the federal government. Our education programs will allow for new workforce development in arguably the largest growth industry in Oklahoma. Together we will create new jobs and bring new business to the state, through digitally enabled cutting-edge technologies.

202 W. Boyd, Suite 124, CEC
Norman, OK 73019
(405) 325-4350
Director - Dr. Shivakumar Raman
raman@ou.edu
http://www.seamcenter.org