SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE WOMEN

APPLICATION DEADLINE: 03/01/2019

PROJECT TITLE: Novel Augmentor System Design

Ephraim Gutmark
CEAS
799 Rhodes Hall
ephraim.gutmark@uc.edu
556 1227

Project Description

A new and unique facility that simulates the flow conditions in an afterburner configuration is operating in our laboratory. The facility includes a combustor with an exhaust duct where innovative strategies of secondary fuel injection can be tested. It is also instrumented for advanced flow and combustion diagnostics. The facility is used to study secondary combustion dynamics in an augmentor configuration. The research emphasizes new concepts for flame stabilization, and investigation of combustion instabilities in augmentors and their prevention using passive control and acoustic liners. The research combines experimental and computational work.