

## A. EXECUTIVE SUMMARY

**Project Title:** Project NERVE – Nuclear Education and Research Vertical Enhancement

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**Total Funding Request:** \$360,000 for four years

**Statement of Project’s Objectives and Benefits:**

The goal and objectives of this multidisciplinary and collaborative project is to increase the number of students and faculty from underrepresented groups (women and minorities) in fields related to the nuclear industry. This will be accomplished through an *education-to-workforce* approach that comprises of well integrated multi-track interdisciplinary education and research activities that cut vertically across middle/high schools, two-year colleges, undergraduate education, graduate schools, and postdoctoral training. This innovative and novel approach has a solid infrastructure supported with training resources/facilities from Alabama A&M University, DOE’s Brookhaven National Laboratory, Tennessee Valley Authority nuclear plants, and ICX Radiation technologies.

The benefits and outcomes include 1) *nuclear engineering technology* concentrations at the undergraduate and graduate school levels, which will serve as direct education-to-workforce pipelines for the nuclear industry; 2) recruitment of women and *underrepresented minorities* into the nuclear concentrations each year, with a retention rate greater than 75 percent, and more than 60 percent of the graduates joining the *nuclear industry workforce* or pursuing advanced degrees in related fields; 3) one *postdoctoral trainee* and one additional *faculty*, from underrepresented groups in nuclear industry related fields; and 4) a nuclear instrumentation laboratory for training students developing careers in nuclear power plants, nuclear waste management, domestic nuclear security and safeguard, health physics, and radiology.