Nuclear Engineering Graduate Fellowship Program at Utah State University

Executive Summary:

This project will create a Nuclear Engineering Graduate Fellowship Program (NEGFP) at Utah State University (USU). Under the leadership of university administration, and with support from the DOE Idaho National Lab (INL), industry, and a forming Utah nuclear education consortium, USU is experiencing rapid growth in nuclear engineering research. Currently supported nuclear research in the Department of Mechanical and Aerospace Engineering (MAE) totals more than $3.5M. Academically, MAE currently has funding to develop a nuclear minor, is developing four nuclear courses for an emphasis in the ME degree, has integrated nuclear modules into several MAE core courses, and has recently arranged collaborative courses with the University of Utah, including lab work with the test reactor. NEGFP will provide a *fellowship* to three PhD and four MS students in MAE. Moreover, the fellowship will help attract qualified students to PhD and MS programs in nuclear related research and will prepare those students for a career in nuclear science, engineering, and related disciplines. Fellowship recipients will work on nuclear related research projects as research assistants. The combination of the NEGFP fellowship, research assistantship, tuition waiver, and readily accessible research opportunities in nuclear engineering (with currently funded projects, collaboration with INL, and a developing inter-institutional nuclear education consortium) will provide an excellent education and research package to attract and prepare top-tier graduate students. The *significant impact* of the proposed fellowship program will be that it matches the strategic goals of the university, college, and department to enhance and maximize nuclear research and education at USU, and it helps prepare students to participate in and sustain a capable industry workforce.

Principal Investigator: Heng Ban, heng.bam@usu.edu