

# **Fatigue and Fracture of Students and Other Materials: Nuclear Engineering-An Exciting Time**

Abstract

Professor R. G. Ballinger  
Department of Nuclear Engineering  
Department of Materials Science and Engineering

Massachusetts Institute of Technology  
185 Albany Street  
Cambridge, MA 02139

The resurgence of interest in nuclear power in the US has resulted in very exciting opportunities in academia, national laboratories and industry. Department of Energy initiatives include the Next Generation Nuclear Plant (NGNP) and Generation IV reactor systems. At the university level these initiatives have fostered exciting and innovative research opportunities. The late hours in the laboratory ARE BACK. Our industry is indeed on the upsurge. The JOBS are BACK. In this seminar we will discuss the exciting opportunities that are available in the nuclear industry. Focus will be on R&D opportunities and graduate education in general followed by opportunities for graduate education at MIT. Examples from Professor Ballinger's research, both the nuclear engineering and materials science areas will be discussed including alloy development for Pb-Bi service, advanced coated particle fuel development and materials for hydrogen production.