

Cyrus M. Smith

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Cyrus Smith is a Senior Research Staff member of the Modeling and Simulation Group in the Computational Sciences and Engineering Division at Oak Ridge National Laboratory. Cyrus earned his Bachelor's and Master's Degree in Nuclear Engineering from the University of Tennessee in 1973 and 1975 respectively. His Master's Degree work consisted of developing a signal analysis algorithm for nuclear reactors based upon a Fast Fourier Transform (FFT).

After joining the staff of the Instrumentation and Controls Division of the Oak Ridge National Laboratory in 1975, Cyrus continued working on the development of signal analysis algorithms and diagnostics for nuclear reactors and rotating machinery. During the late 1970's and early 1980's, Cyrus developed diagnostics for the Nuclear Regulatory Commission (NRC) and the nuclear industry based upon the correlation of neutron noise with mechanical vibrations from nuclear reactors. In the late 1980's, Cyrus began working with the Navy on signal processing of sonar signals. This work culminated with Oak Ridge's development and integration of the signal processing equipment and algorithms onboard the USNS Haynes for submarine acoustic trials as part of the Navy's Acoustic Measurement Facilities Improvement Program (AMFIP). This system was used to measure and verify the radiated noise levels from the SEAWOLF submarine.

During the 1990's, Cyrus worked with various agencies of the Department of Defense on several advanced research projects which included development of high strength, lightweight materials for the Special Operations Community and the development of technologies and methodologies for the removal of unexploded ordnance, countermining, and humanitarian demining. Additionally, he worked with the Department of Energy's Office of Safeguards and Security to develop non-lead, environmentally safe bullets. Cyrus holds two patents in the area of non-lead, environmentally safe bullets.

After joining the Computational Sciences and Engineering Division in 2000, Cyrus has been involved with the Department of Homeland Security in developing advanced sensor and Information Technology (IT) systems for homeland security. These systems include the Domestic Nuclear Detection Office's (DNDO) Southeast Transportation Corridor Pilot (SETCP) which automates commercial vehicle inspection stations to detect nuclear materials in transit as well as perform related safety and regulatory functions, and the Transportation Security Agency's (TSA) Southern Region Radiological Pilot Project (SRRPP) which automates the detection of nuclear materials in ocean going commerce moving through the Port of Charleston, South Carolina.