

EDaFS: the Experiment Database for Fire Science

Online Data Access for Experiments in Building and Fire Science

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Abstract

An Experiment Database for Fire Science (EDaFS, pronounced “edifice”) is currently under development at Worcester Polytechnic Institute under a grant from the National Institute of Standards and Technology. This project, which is now in Beta testing, provides on-line access to a collection of fire experiment data, in some cases with a virtual reality interface. EDaFS serves as an online data warehouse that will augment existing collections by enabling remote access to experiment data and associated video clips, reports, and photographs through an independent search engine or via the Fire and Building Educational Resource Collection (FABERC). EDaFS may standardize storage of experimental data in the fire science community by defining an appropriate database structure – including minimum required information – to replace the Fire Data Management System (FDMS) developed at NIST. This structure is intended to preserve information that may otherwise be lost, such as specific locations of instrumentation, in addition to enabling direct and immediate access to the underlying data for many studies. The expected audience includes researchers, practitioners, and students and faculty. Ongoing tasks for EDaFS include the creation of phenomenological and visual tools for experimental data and the addition of new data and experiments to expand the database.

Biography

John Woycheese has been an Assistant Professor in Fire Protection Engineering at Worcester Polytechnic Institute (WPI) since 2000. He has been the Principle Investigator for several digital library grants and contracts, funded by the National Science Foundation, National Institute of Standards and Technology, Society of Fire Protection Engineers, and WPI, in the pursuit of his goal of a comprehensive on-line resource of multimedia, educational resources, and experiment data for fire-related fields. He was a Teaching Technology Fellow at WPI from 2001 to 2003, and teaches three classes at WPI about fire detection and suppression in a distance-learning format. He received his degrees from the University of California, Berkeley, in Mechanical Engineering.