Advanced Technology For Large Structural Systems (ATLSS) Research Center

117 ATLSS Drive, Imbti Laboratories, Mountain Campus
610-758-3525; Fax 758-5902; www.atlss.lehigh.edu

Administration: Richard Sause, Ph.D., ATLSS Director, Manager Infrastructure Monitoring Program; James M. Ricles, Ph.D., ATLSS Deputy Director; Chad Kusko, Ph.D., Administrative Director; Ian Hodgson, P.E., Manager Industrial Testing Program; Peter Y. Bryan, B.S., Manager Computer Systems; Doris Oravec, B.S., Financial Services; Leila Mazarul, Coordinator; Geraldine Kery, Research Coordinator; Richard Sause, Ph.D., Co-Director Pennsylvania Infrastructure Technology Alliance (PITA) and Research for Advanced Manufacturing in Pennsylvania (RAMP); James M. Ricles, Ph.D., Director Real-Time Multi-Directional Testing Facility (RTMD)

Faculty Associates: Helen M. Chan, Ph.D., Materials Science & Engineering; John N. DuPont, Ph.D., Materials Science & Engineering; Dan Frangopol, Ph.D., Structural Engineering; Joachim L. Grenestedt, Ph.D., Mechanical Engineering & Mechanics; Wojciech Z. Misiolek, Ph.D., Materials Science & Engineering; Clay J. Naito, Ph.D., Structural Engineering; Herman F. Nied, Ph.D., Mechanical Engineering & Mechanics; Sibel Pamukcu, Ph.D., Civil & Environmental Engineering; Raymond A. Pearson, Ph.D., Materials Science & Engineering; Stephen P. Pessiki, Ph.D., Structural Engineering; James M. Ricles, Ph.D., Structural Engineering; Richard Sause, Ph.D., Structural Engineering; John L. Wilson, Ph.D., Structural Engineering; Shamim Pakzad, Ph.D., Structural Engineering; Muhammad T. Suleiman, Ph.D., Geotechnical Engineering; Paolo Bocchini, Ph.D., Structural Engineering; Spencer Quiel, Ph.D., Structural Engineering

Faculty Emeritus Associates: John W. Fisher, Ph.D., emeritus, Structural Engineering; Alan W. Pense, Ph.D., emeritus, Materials Science & Engineering; Ben T. Yen, Ph.D., emeritus, Structural Engineering


The ATLSS Engineering Research Center is a national center for research and education on structures and materials of the infrastructure. Established in May 1986 with a grant from the National Science Foundation (NSF), the Center now addresses the research goals of the NSF, the U.S. Department of Transportation, the Commonwealth of Pennsylvania, the U. S. Department of Defense, and numerous national, state, and local industry and government organizations and agencies. Approximately 80 people, including graduate and undergraduate students, research associates, faculty and staff members representing the disciplines important to large structural systems are active at the Center.

ATLSS research areas include: Advanced Structural Systems and Materials; Measurement, Simulation, and Evaluation of Structural Systems; Infrastructure Reliability, Maintenance, and Life-Cycle Performance; Intelligent Structural Systems; and Infrastructure Hazard Mitigation with particular emphasis on Earthquake-Resistant Structures. The research is conducted in close association with engineers and scientists from several Lehigh departments, industry, government, design and professional groups and other universities.

ATLSS has excellent research facilities and equipment, including two world-class structural testing facilities; the Fritz Engineering Laboratory and the ATLSS Multi-Directional Testing Laboratory, in which researchers study large-scale structural subassemblies under static, dynamic, and/or cyclic multidirectional loading with complete computer-controlled experimentation. A recent grant from the NSF created the real-time multi-directional (RTMD) experimental facility to evaluate the performance of engineering designs and materials during earthquakes, hurricanes and other storms, tsunamis, landslides, and other disasters as part of NSF’s Natural Hazards Engineering Research Infrastructure (NHERI) program. ATLSS also has outstanding resources for computing, mechanical testing, welding, metallography, and non-destructive evaluation.