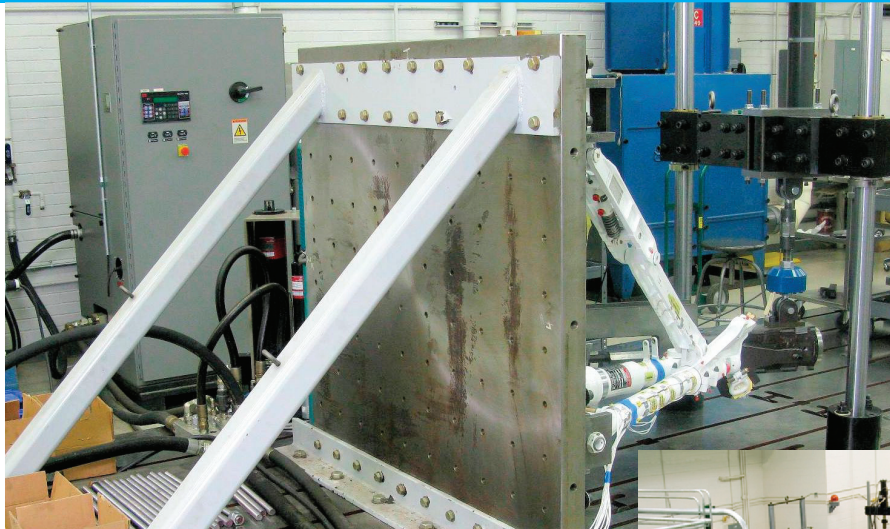


SMARTlab

STRUCTURES &
MATERIALS
ASSESSMENT,
RESEARCH, AND
TESTING
LABORATORY



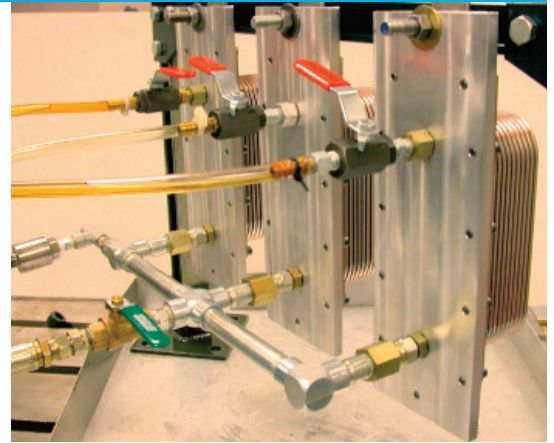
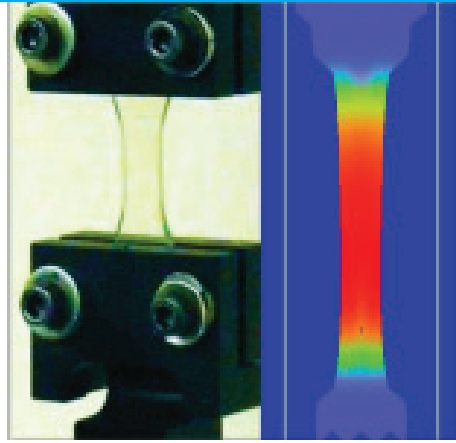
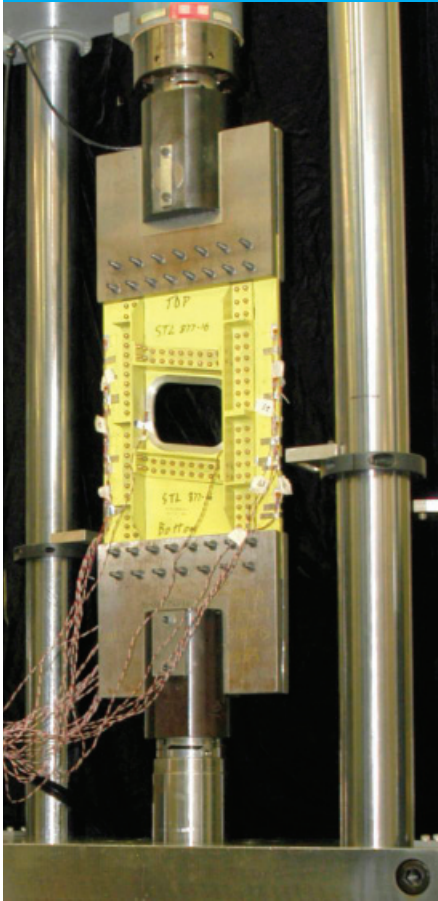
SMARTlab addresses all aspects of material, component and large-structure development, as well as verification and validation.

- Fatigue- and fracture-related testing
- Limit and ultimate load static strength evaluation
- High strain rate material and component characterization
- Validation of designs, models, and processes
- Full-scale assembly and system fatigue and performance testing
- Development and verification of custom software, instrumentation, and test setups



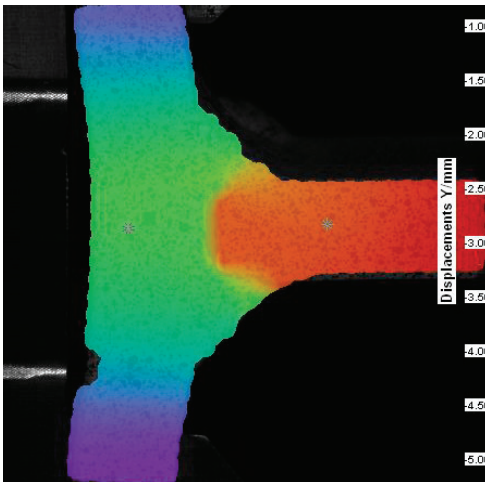
FACILITY FEATURES

- Over 12,000 sq ft of floor space
- 24 and 30 ft floor-to-crane clearance
- 5- and 10-ton overhead cranes
- Fatigue test frequencies from 0.001 to 1000 Hz
- 20 x 20 x 10 ft deep pit to facilitate testing of tall components
- Multiple T-slot bedplates and reconfigurable floor space for custom setups for combined thermal/hydro/mechanical tests
- Over 20 universal test frames ranging from 5 to 550 kip fatigue capacity
- State-of-the-art machine test controllers for multi-axis control and data collection
- Wide variety of instrumentation and data acquisition schemes
- Digital image correlation for full-field displacement and strain measurement



SUPPORTING CAPABILITIES

- SMARTlab will be an integral part of UDRI's comprehensive air/ground/sea vehicle and industrial equipment engineering and test capabilities. We address all technical and management program requirements to ensure our customers' success.
- Full-field strain and displacement measurement of coupons and components
- Complete fractographic capabilities for test article teardown analysis
- Broad vibration capabilities, including shakers up to 5000 lb and modal analysis equipment
- Specialty structural testing, including low-velocity and ballistic impact
- High-temperature material testing up to 2500°F
- Systems engineering and ISO 9001:2008 design, solid modeling, and Level III drawing packages
- Expert modeling and simulation, including aero, thermal, structural, and risk analysis
- Comprehensive nondestructive evaluation capabilities and ASNT-qualified personnel
- Full-service machine shop for fixture construction and test article development/repair
- Calibration services following ISO 17025-accredited procedures



For More Information, Contact:

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