

# Collaborate with Us

Our **concept-to-completion** capabilities allow us to quickly respond to client needs and provide optimal solutions with **shorter turn-around times**.

Having all aspects of technology and engineering in one location allows for experience and knowledge to be shared among members during all stages of our projects.

## About Us

The Technology Application Center (TAC) is a dedicated workspace for accelerating the development of products and solutions through collaboration, rapid prototyping and testing.

The facility contains collaboration space, robotics, a state-of-the-art machine shop, metal and plastic additive manufacturing, and NDE capabilities.

The TAC is cost-effective engineering that enables faster response, improves safety and productivity, and quickly verifies return on investment.

### Published by

Siemens Energy Orlando Innovation Campus  
12501 Research Parkway, Suite 180  
Orlando, FL 32826

407.380.6085

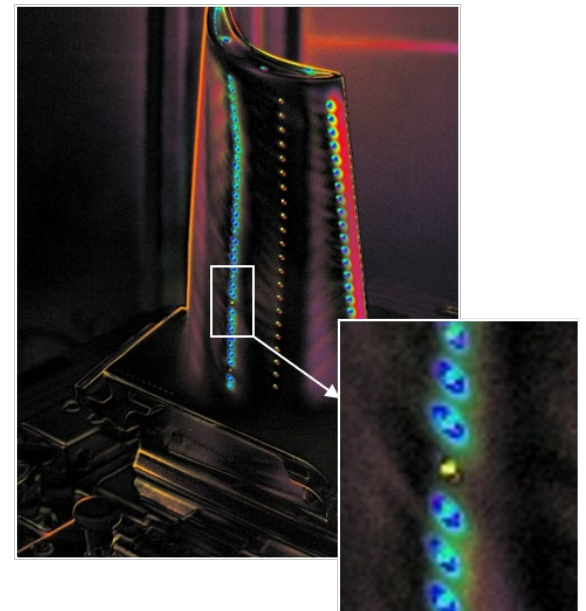
[innovationcenter.us@siemens-energy.com](mailto:innovationcenter.us@siemens-energy.com)

Siemens Energy is a registered trademark licensed by Siemens AG.



# Technology Application Center

Non-Destructive Evaluation



# Non-Destructive Testing & Evaluation

The Technology Application Center is equipped with an expert team of ASNT Level III certified engineers who develop qualified non-destructive inspections and provide real time support for emergent issues.

## Radiographic Inspection (RT)

Radiographic Testing exposes a test object to penetrating radiation that passes through the object being inspected and onto a recording medium placed on the opposite side.

- Computed Tomography (CT)
- Computed Radiography (CR)
- Digital Radiography (DR)
- Film & Digital Capturing
- Film Digitization
- X-Ray & Micro-focus

## Ultrasonic Testing (UT)

Ultrasonic Testing uses high frequency sound energy to conduct examinations. Ultrasonic inspection can be used for flaw detection, dimensional measurements, and material characterization.

- A-scan & B-scan
- Phased Array (PAUT)
- Bolt Inspection

## Infrared Inspection (IR)

Infrared is an advanced and non-invasive technology that utilizes an infrared camera to find areas of excess heat caused by defects in components.

- Flash Thermography
- GIS – Global Inspection System
- Acoustic Thermography
- Induction Thermography
- Handheld Inspections
  - Electrical
  - Moisture Intrusion
  - Heat Loss / Mapping

## Eddy Current Inspection (ET)

Eddy Current testing is the ideal application to detect flaws or cracks as small as 2 millimeters. With this tool we can also perform conductivity measurements and tubing inspections.

- Single channel frequency
- Multi-channel frequency
- Conformal arrays
- Bolt hole
- Surface
- ACFM Inspection

## Visual Testing (VT)

Visual Testing involves the visual observation of the surface of a test object to evaluate the presence of surface discontinuities. It can be classified as direct or remote visual testing.

- Fiberscope 0.7 – 1.5 mm
- Videoscope 2.4; 4 & 6 mm
  - Stereo measurement
  - 3D Measurement
  - UV Inspection

## Penetrant Inspection (PT)

Penetrant inspection is a reliable method for detecting discontinuities open to the surface. It can locate a wide variety of discontinuity sizes.

- Visible
- Fluorescent

## Magnetic Particle Inspection (MT)

The magnetic particle inspection is used for detecting surface and shallow subsurface discontinuities in ferromagnetic materials.

- Visible
- Fluorescent

## NDE Engineering Functions:

- New NDE Technology Research and Development
- NDE Hardware and Software design and configuration management
- NDE Qualification Training, Testing, and Certification
- NDE Supplier Audits and Accreditation
- NDE Service / Manufacturing Development and Inspections
- NDE Root Cause Analysis (RCA) and Failure Analysis (FA)