Mechanical Technical Job Opening

This job announcement is for an entry level mechanical laboratory technician position at Georgia Tech’s National Electric Energy Testing, Research and Applications Center. This is temporary (Tech Temp) position that may progress to a permanent position.

NEETRAC is the leading center in the US for applied research and testing in the field of electric energy distribution and transmission. The center is a membership focused organization providing a dynamic work environment relating to real word issues experienced by electric utilities, equipment manufacturers, and related industries in the electric energy area.

Job Summary

The Mechanical Laboratory Technician will prepare and perform routine and custom testing, perform basic data recording and reporting, and assist in equipment maintenance. Opportunities for growth may include on the job training, permanent employment and further advancement thereafter as well as expanded responsibilities to include more detailed report writing and analysis.

Job Requirements

- Relevant vocational education OR 5 years’ experience operating and maintaining industrial equipment OR 5 years’ experience fabricating mechanical equipment and control systems.
- Candidate should have at least some knowledge of the following:
  - Basic mechanics including gears, levers, pulley systems, power screws, springs, dampers, flywheels, bearings, shafts, belts, clutches, brakes, lubrication, etc.
  - Basic mechanical theory including Hooke’s law and statics
  - Basic electrical theory including AC and DC circuits; 3 phase systems; applications of resistance, capacitance and inductance
  - Fastening methods such as screws, bolts, welded joints, rivets, adhesives, brazed and soldered joints, compression and interference joints, keyways, etc.
  - Wiring relays, switches, transformers and motors
  - Control, use, maintenance and repair of pneumatic devices
  - Control, use, maintenance and repair of hydraulic devices
  - Low voltage and controls wiring
  - Computer literacy including use of Excel (basic formulas, macros) and Word
Skills and abilities requirements:
- Use of basic tools such as drill presses, band saws, hydraulic presses, torque wrenches, (Milling machine, lathe and welding skills preferred but not required)
- Use of measuring devices such as micrometers, calipers, tape measures, thermometers, etc.
- The ability to build jigs and fixtures using multiple materials such as metals, plastics and wood.
- Perform mathematical calculations that would be necessary to build a jig or fixture or convert Metric units to English units.
- The ability to wire transformers, motors, capacitor banks and control systems.
- The ability to follow written procedures with strong attention to detail.
- The ability to read mechanical drawings and wiring diagrams, both for test apparatus construction and troubleshooting.

Job Duties

The Mechanical Laboratory Technician will execute mechanical testing programs under the supervision of a laboratory coordinator or project engineer (70%).

- Executing test programs involves:
  - Building jigs and fixtures
  - Preparing test specimens
  - Wiring and instrumenting test specimens for data acquisition
  - Operating electric, hydraulic and pneumatic equipment
  - Wiring control circuits
  - Recording data
  - Following tests plans written by engineers or senior technicians / coordinators
  - Basic report writing and data analysis
  - Working with test engineers to ensure project deliverables are met

- The mechanical laboratory includes the following types of testing:
  - Stress/strain
  - Tension/compression
  - Creep
  - Vibration
  - Drop/impact
  - Thermal
  - UV
  - Corrosion/Salt Fog
Basic metrology including materials analysis

- Components normally tested include any component found in electric utilities’ distribution and transmission systems:
  - Wire, Cable, and Bus
  - Electrical connectors
  - Castings, injection moldings, polymer products, porcelain components, wood components, weldments, etc
  - Threaded fasteners, eyelets, sockets, etc
  - Insulators
  - Fuses
  - On a less frequent basis, switches, transformers & capacitors

The Mechanical Laboratory Technician will assist in equipment maintenance and upgrades (25%)

- Laboratory equipment includes:
  - Hydraulic and mechanical presses
  - Transformers and power supplies
  - Motors
  - Servo-control systems
  - Thermal chambers
  - UV chambers
  - Salt fog chamber

The Mechanical Laboratory Technician will participate in mechanical section meetings; participate in research center committees and research center employee meetings (5%)

To Apply

Email your resume to linda.dillon@ece.gatech.edu and joe.goldenburg@neetrac.gatech.edu

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