Notice

This notice is being provided as a result of the filing of an application for permanent alien labor certification for the job opportunity described below. Any person wishing to comment may provide documentary evidence to the Certifying Officer, U.S. Department of Labor; Employment and Training Administration; Office of Foreign Labor Certification; 200 Constitution Avenue NW, Room N-5311; Washington, DC 20210.

Research Engineers Job ID #21596 in Wichita, Kansas

DUTIES: Independently interprets, organizes, executes, and coordinates research assignments in composites and structures. Formulates and conducts research on problems of considerable scope and complexity. Explores subject area and defines scope and selection of problems for investigation through conceptually related studies or series of projects of lesser scope. Essential Function 1 - Interprets, organizes, executes, and coordinates engineering research assignments concerned with unique or controversial problems. More specifically, conducts research and testing in structures and composite materials, using strain gauge techniques. Applies diversified knowledge of engineering research principles, practices, and protocols in research projects; makes recommendations and conclusions which serve as the basis for decision making in a specialty area. Formulates and conducts systematic problem analysis and resolution in an area of considerable scope and complexity through series of complete and conceptually related studies, or through a variety of projects of lesser scope. Perform image analysis using Fuji ImageJ and optical microscopy. Receives administrative supervision, with assignments given in terms of broad general objectives and limits. Responsibility 1 Plan and establish sequence of operations to fabricate and assemble parts or products and to promote efficient utilization. Responsibility 2 Confer with clients, vendors, staff, and management personnel regarding purchases, product and production specifications, manufacturing capabilities, or project status. Responsibility 3 Evaluate precision and accuracy of production and testing equipment and engineering drawings to formulate corrective action plan, using CATIA V5 and MTS Test Suite. Use Laser Desk to conduct surface analysis and profile measurements. Use ASTM mechanical and physical test methods for both metals and polymers. Responsibility 4 Recommend methods for improving utilization of personnel, material, and utilities. Responsibility 5 Record or oversee recording of information to ensure currency of engineering drawings and documentation of

production problems. Responsibility 6 Implement methods and procedures for disposition of discrepant material and defective or damaged parts, and assess cost and responsibility. Responsibility 7 Apply statistical methods and perform mathematical calculations to determine manufacturing processes, staff requirements, and production standards. Develop new techniques for high temperature instrumentation. Essential Function 2 - Develops model concepts and approaches as an individual researcher and acts independently on technical matters. Responsibility 1 Draft and design layout of equipment, materials, and workspace to illustrate maximum efficiency using drafting tools and computer. Responsibility 2 Coordinate and implement quality control objectives, activities, or procedures to resolve production problems, maximize product reliability, or minimize costs. Essential Function 3 - Collaborates with users and principal investigators on design, analysis, application, and reporting of research projects; provides technical leadership and technique consultation. Responsibility 1 Analyze statistical data and product specifications to determine standards and establish quality and reliability objectives of finished product. Responsibility 2 Communicate with management and user personnel to develop production and design standards. Responsibility 3 Direct workers engaged in product measurement, inspection, and testing activities to ensure quality control and reliability. Train students in strain gauge techniques. Responsibility 4 Develop manufacturing methods, labor utilization standards, and cost analysis systems to promote efficient staff and facility utilization. Work with surface preparation and characterization for strain gauge application. Use strain gauging techniques for various environmental and mechanical testing cases. Essential Function 4 - Prepares analyses, reports, and assists with the preparation of, materials for grant proposals to obtain funding in support of research activities. Responsibility 1 Estimate production costs, cost saving methods, and the effects of product design changes on expenditures for management review, action, and control. Use MS Office to communicate same. Responsibility 2 Complete production reports, purchase orders, and material, tool, and equipment lists. Responsibility 3 Formulate sampling procedures and designs and develop forms and instructions for recording, evaluating, and reporting quality and reliability data. Essential Function 5 - Serves as investigator on single or multiple projects of complexity and scope consistent with above criteria, and/or manages a research unit. Maintains currency of knowledge with respect to relevant state-of-the-art technology, equipment, and/or systems. Responsibility 1 Review production schedules, engineering specifications, orders, and related

information to obtain knowledge of manufacturing methods, procedures, and activities. Research new techniques for strain gauges using laser and optical equipment. Responsibility 2 Study operations sequence, material flow, functional statements, organization charts, and project information to determine worker functions and responsibilities. Responsibility 3 Regulate and alter workflow schedules according to established manufacturing sequences and lead times to expedite production operations. Responsibility 4 Schedule deliveries based on production forecasts, material substitutions, storage and handling facilities, and maintenance requirements.

MINIMUM REQUIREMENTS: Bachelor's degree in Mechanical, Materials or Aerospace Engineering or a related field. Two (2) years of experience working in a research laboratory with ASTM standards as part of daily operations; image analysis using Fuji ImageJ and optical microscopy; and strain gauging techniques for various environmental and mechanical testing cases. Demonstrated ability with MS Office, Laser Desk, CATIA V5, ImageJ, CSV files, and MTS Test Suite. \$71,510/yr. - \$93,157/yr.

Reply to: Raegan Brown HR Generalist National Institute for Aviation Research Wichita State University 1845 Fairmount Wichita, Kansas 67260