| Job Title:   | Research Eng, Huntsville | Level I   | Unclassified |
|--------------|--------------------------|-----------|--------------|
| lah Qada     | HU07                     | Level II  | Unclassified |
| Job Code:    |                          | Level III | Unclassified |
| FLSA status: | Exempt                   | Level IV  | Unclassified |
|              |                          | Level V   | Unclassified |
|              |                          | Level VI  | Unclassified |

### Job Summary

Conducts research in various fields of science or engineering to discover facts or perform research directed toward investigations, evaluation, and application of engineering theories and principles.

### **Essential Functions**

- 1. Performs a variety of research and development projects requiring the applications of professional engineering or science-based practices and principles.
- 2. Operates, maintains, and repairs specialized equipment.
- 3. Advises faculty, principal research scientists and engineers, postdoctoral fellows, students, and staff with design, modification, prototype, processes, analysis procedures, and other engineering solutions.
- 4. Designs and fabricates equipment, materials, systems utilizing engineering practices and principles.
- 5. Performs failure analysis and other issues.
- 6. Ensures supplies are available and operational for use in projects.
- 7. May manage local computer systems for laboratory functionality.
- 8. Develops proposals, budgets, schedules and progress reports and presents results to internal or external stakeholder.
- 9. Evaluates findings to develop new concepts, equipment, or processes.
- 10. Prepares technical reports for long and short-range planning.

# **Supervisory Responsibility**

May supervise employees but supervision is not the main focus of the job.

The above essential functions are representative of major duties of positions in this job classification. Specific duties and responsibilities may vary based upon departmental needs. Other duties may be assigned similar to the above consistent with the knowledge, skills and abilities required for the job. Not all of the duties may be assigned to a position.

| Job   | Family Levels   |   |  |
|-------|---|---|--|
| Level | Responsibility  | Knowledge   | Education and Experience*  |
| I     | Works under close supervision; receives<br>specific and detailed instructions for<br>required tasks and results expected.<br>Performs a variety of routine tasks.<br>Usually assumes no responsibility for<br>direction of others.  | Familiarity with engineering staff, methods, practices and programs.  | B.S. in Engineering or<br>Science-related field and no<br>experience.  |
| II    | Performs standard engineering work<br>requiring application of standard<br>techniques and procedures.<br>Assignments may include higher-level<br>work for developmental purposes.<br>Receives close supervision on new<br>aspects of assignments. Uses<br>prescribed methods, performs specific<br>and limited segments of an experienced<br>engineer's broader assignment.   | Continuing developmental level. Limited<br>exercise of judgment required when less<br>common methods or procedures are<br>necessary.  | B.S. in Engineering or<br>Science-related field plus 2<br>years professional<br>experience. Experience must<br>include at least 2 years at the<br>preceding level or equivalent.   |
| III   | Assignments have clear and specific<br>objectives and require investigation of a<br>limited number of variables. Receives<br>instructions on specific assignment<br>objectives, complex features, and<br>possible solutions. May be assisted by<br>engineers or technicians and be<br>responsible for single phase of a project.  | Independently evaluates, selects and<br>applies standard engineering techniques<br>and procedures while using judgment<br>when making minor adaptations and<br>modifications. | B.S. in Engineering or<br>Science-related field plus 4<br>years professional<br>experience. Experience must<br>include at least 2 years at the<br>preceding level or equivalent.   |
| IV    | Plans and conducts work requiring<br>judgment in independent evaluation,<br>selection and substantial<br>adaptation/modification of standard<br>techniques, procedures, and criteria.<br>Devises new solutions to problems<br>encountered. Independently performs<br>most assignments with instruction only<br>regarding general expected results. May<br>supervise a few engineers and/or<br>technicians on project basis. | Fully competent in all conventional<br>aspects of subject matter or functional<br>area of assignments.  | B.S. in Engineering or<br>Science-related field plus 4<br>years professional<br>experience. Must obtain the<br>Certified Energy Manager<br>(CEM) designation from the<br>Association of Energy<br>Engineers within 12 months<br>of employment. Experience<br>must include at least 2 years<br>at the preceding level or<br>equivalent. |
|       |   |   |  |

Makes decisions independently V regarding engineering complexities and methods. Supervision and guidance relate largely to overall objectives, critical issues, new concepts and policy matters. Supervises, coordinates and reviews work of small staff of engineers and/or technicians. As individual researcher or staff specialist, performs complex or novel assignments requiring development of new and/or improved techniques and procedures.

Applies diversified knowledge of engineering principles and practices to broad variety of assignments and related fields. Requires use of advanced techniques and modification and extension of theories, precepts and practices in individual's field.

B.S. in Engineering or Science-related field plus 6 years professional experience. Must obtain the Certified Energy Manager (CEM) designation from the Association of Energy Engineers within 12 months of employment. Experience must include at least 2 years at the preceding level or

equivalent.

VI Plans and develops engineering projects concerned with unique or controversial complexities which have important impact on major organization programs. Plans, organizes and supervises work of staff of engineers and technicians. As individual researcher, consultant or staff specialist conceives plans and conducts research in areas of considerable scope and complexity. Technical liaison to individuals within or outside his organization involving exploration of subject area, definition of scope, selection of areas for investigation and development of novel concepts. B.S. in Engineering or closely related field, certification as a Professional Engineer and Certified Energy Manager, and 8 years of progressive engineering experience. Experience must include at least 3 years at the preceding level or equivalent. (must obtain the Certified Energy Manager (CEM) designation from the Association of Energy Engineers within 12 months of employment.)

\* See the "Minimum Required Education and Experience" section of the job description for any substitutions that may be allowed for education and experience.

### **Minimum Required Education and Experience**

- Level I B.S. in Engineering or Science-related field and no experience.
- **Level II** B.S. in Engineering or Science-related field plus 2 years professional experience. Experience must include at least 2 years at the preceding level or equivalent.
- **Level III** B.S. in Engineering or Science-related field plus 4 years professional experience. Experience must include at least 2 years at the preceding level or equivalent.
- **Level IV** B.S. in Electrical Engineering plus 4 years professional experience and must obtain the Certified Energy Manager (CEM) designation from the Association of Energy Engineers within 12 months of employment. Experience must include at least 2 years at the preceding level or equivalent.
- Level V B.S. in Engineering or Science-related field plus 6 years professional experience. Must obtain the Certified Energy Manager (CEM) designation from the Association of Energy Engineers within 12 months of employment. Experience must include at least 2 years at the preceding level or equivalent.
- Level VI B.S. in Engineering or closely related field, certification as a Professional Engineer and Certified Energy Manager, and 8 years of progressive engineering experience. Experience must include at least 3 years at the preceding level or equivalent. (must obtain the Certified Energy Manager (CEM) designation from the Association of Energy Engineers within 12 months of employment.)

| Focus of Education               | Focus of Experience   |  |
|----------------------------------|---|--|
| Degree relevant to the position. | Experience relevant to the position. Experience in various fields of science or engineering and research practices and principles. Experience in various fields of science to include mathematics, physical sciences, life sciences, computer science, etc. |  |

#### Substitutions allowed for Education:

Indicated education is required; no substitutions allowed.

#### Substitutions allowed for Experience:

When a candidate has the required education, but lacks the required experience, they may normally apply additional appropriate education toward the experience requirement, at a rate of one (1) year relevant education per year of required experience.

#### Minimum Required Knowledge

See Job Family Levels

#### **Certification or Licensure Requirements:**

Some positions may require licensure as a professional engineer.

### **Physical Requirements/ADA**

Occasional and/or light lifting required. Limited exposure to elements such as heat, cold, noise, dust, dirt, chemicals, etc., but none to the point of being disagreeable. May involve minor safety hazards where likely result would be cuts, bruises, etc.

Routine deadlines; usually sufficient lead time; variance in work volume seasonal and predictable; priorities can be anticipated; some interruptions are present; involves occasional exposure to demands and pressures from persons other than immediate supervisor.

Job frequently requires sitting, reaching, talking, hearing, handling objects with hands, .

Job occasionally requires standing, walking, climbing or balancing, stooping/kneeling/crouching/crawling, and lifting up to 50 pounds.

Vision requirements: Ability to see information in print and/or electronically, ability to distinguish colors.

Date: 4/4/2023