General Services Administration Federal Supply Schedule Authorized Federal Supply Schedule Price List

Professional Services Schedule (PSS)

Contract Number: GS-10 F-0185y Contract Period: February 22, 2017 through February 21, 2022

> Southern Research Institute 2000 Ninth Ave South Birmingham, AL 35255-5305

Business Size: Large Business, Not for Profit 501(c)(3) Research and Development Organization

> Engineering Research Center 757 Tom Martin Dr. Birmingham, AL 35211

Telephone: 205-581-2633 Fax Number: 205-581-2200 Website: www.southernresearch.org

Contract Administration: Raymond Bronner <u>rbronner@southernresearch.org</u>

Business Development/ Engineering: John Collier <u>icollier@southernresearch.org</u>

Southern Research Institute

P.O. Box 55305 | Birmingham, AL 35255-5305 | 800.967.6774 | www.SouthernResearch.org 2000 Ninth Avenue South | Birmingham, AL 35205

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Customer Ordering Information

1a. Table of Awarded Special Item Number(s) with appropriate cross-reference to page numbers:

	Disaster		
SINs	Recovery	SIN Description	Engineering Discipline
871-1	871-1RC	Strategic Planning for Technology Programs/Activity	Chemical, Electrical, Mechanical
871-2	871-2RC	Concept Development and Requirements Analysis	Chemical, Civil, Electrical, Mechanical
871-3	871-3RC	System Design, Engineering and Integration	Chemical, Civil, Electrical, Mechanical
871-4	871-4RC	Test and Evaluation	Chemical, Civil, Electrical, Mechanical
871-5	871-5RC	Integrated Logistics Support	Chemical, Civil, Mechanical

- 1b. Identification of the lowest priced model number and lowest unit price for that model for each special item number awarded in the contract. This price is the Government price based on a unit of one, exclusive of any quantity/dollar volume, prompt payment, or any other concession affecting price. Those contracts that have unit prices based on the geographic location of the customer, should show the range of the lowest price, and cite the areas to which the prices apply.
- 1c. If the Contractor is proposing hourly rates a description of all corresponding commercial job titles, experience, functional responsibility and education for those types of employees or subcontractors who will perform services shall be provided. If hourly rates are not applicable, indicate "Not applicable" for this item.
- 2. Maximum Order: \$1,000,000.00
- **3. Minimum Order:** \$100.00
- 4. Geographic Coverage (delivery Area): Domestic and Overseas
- 5. Point(s) of production (city, county, and state or foreign country): Same as company address
- 6. Discount from list prices or statement of net price: Government net prices (discounts already deducted). See Attachment.
- 7. Quantity discounts: None Offered
- 8. Prompt payment terms: Net 30 days

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- **9a. Notification that Government purchase cards are accepted up to the micro-purchase threshold:** Yes
- **9b.** Notification whether Government purchase cards are accepted or not accepted above the **micro-purchase threshold:** Contract Contractor
- 10. Foreign items (list items by country of origin): None
- 11a. Time of Delivery (Contractor insert number of days): Specified on the Task Order
- 11b.Expedited Delivery. The Contractor will insert the sentence "Items available for expedited delivery are noted in this price list." under this heading. The Contractor may use a symbol of its choosing to highlight items in its price list that have expedited delivery: Contact Contractor
- 11c. Overnight and 2-day delivery. The Contractor will indicate whether overnight and 2-day delivery are available. Also, the Contractor will indicate that the schedule customer may contact the Contractor for rates for overnight and 2-day delivery: Contact Contractor
- 11d.Urgent Requirements. The Contractor will note in its price list the "Urgent Requirements" clause of its contract and advise agencies that they can also contact the Contractor's representative to effect a faster delivery: Contact Contractor
- 12. F.O.B Points(s): Destination

13a. Ordering Address(es): Same as Contractor Southern Research Institute 2000 9th Ave South Birmingham, AL 35255

- Contract Administration: Raymond Bronner
 <u>rbronner@southernresearch.org</u>
 205-581-2873
- Business Development/ Engineering: John Collier 205-581-2508

icollier@southernresearch.org

- 13b.Ordering procedures: For supplies and services, the ordering procedures, information on Blanket Purchase Agreements (BPA's) and a sample BPA can be found at the GSA/FSS Schedule homepage (fss.gsa.gov/schedules).
- 14. Payment address: Same as company address
- 15. Warranty provision: Contractor's standard commercial warranty.
- 16. Export Packing Charges (if applicable): N/A



- **17.** Terms and conditions of Government purchase card acceptance (any thresholds above the micro-purchase level): Contact Contractor
- 18. Terms and conditions of rental, maintenance, and repair (if applicable): N/A
- **19. Terms and conditions of installation (if applicable):** N/A
- 20. Terms and conditions of repair parts indicating date of parts price lists and any discounts from list prices (if applicable): N/A
- 20a. Terms and conditions for any other services (if applicable): N/A
- 21. List of service and distribution points (if applicable): N/A
- 22. List of participating dealers (if applicable): N/A
- 23. Preventive maintenance (if applicable): N/A
- 24a. Environmental attributes, e.g., recycled content, energy efficiency, and/or reduced pollutants: N/A
- 24b. If applicable, indicate that Section 508 compliance information is available on Electronic and Information Technology (EIT) supplies and services and show where full details can be found (e.g. contactor's website or other location.) The EIT standards can be found at: www.Section508.gov/.
- 25. Data Universal Numbering System (DUNS) number: 00-6900526
- 26. Notification regarding registration in Central Contractor Registration (CCR) database: Registered



Southern Research Institute Information and Capabilities



Southern Research Institute (SR) was established 1941 as an independent center for scientific research and development. Southern Research is a not-for-profit (501-c-3) organization with approximately 600 employees. Southern Research has over 60 years of experience providing innovative solutions for Government and private sector clients in <u>engineering</u>, as well as <u>life sciences research</u>. We are located in 5 states and have 8 operating locations. The Engineering Division of Southern Research is ISO 9001 Registered.

Southern Research has mature business processes to support all contracting activities. We are audited by DHHS for compliance & accounting procedures. We have cash reserves and business lines of credit to address expanded operations for 6 months. We have a full service HR department with 5 resident recruiters to identify talent nationally.

The Engineering Division comprises 27% of the Institute. It performs approximately 90% of its work for the US Government and 10% for commercial clients. The Engineering Division employs individuals experienced in SINS 871-1, 2, 3, 4, 5, and 6, with specialties in engaged the Professional engineering disciplines of the PSS schedule(Chemical, Electrical, Mechanical and Civil)

GIMBAL-BASED STABILIZED PLATFORMS

Experience in designing, fabricating, assembling, and refurbishing gimbal-• based stabilized platforms—aircraft-based and ground-based.

• Flight-worthy designs range in size from 6" diameter missile designs for the Army's Enhanced Fiber

Optic Guided Missile (EFOGM) and Future Missile Technology Integration (FMTI) program, up to 32" diameter helicopter and high-altitude jet instrumentation pods and turrets.

• Designed, fabricated, assembled, and refurbished several under-wing instrumentation and data collection pods for both subsonic and supersonic aircraft for the 46th Test Wing at Eglin AFB.

• Specialize in reverse engineering for older/obsolete systems, and refurbishment of existing systems that cannot be maintained.





DESIGN, DEVELOPMENT, AND OPTIMIZATION OF TRACKER SYSTEMS

• Includes video trackers, GPS trackers (holding a point in GPS space whether or not a "target" is present), PC-based trackers, and high-definition television trackers.

• Trackers may be standalone systems (Navy's Phalanx video tracker) and are often coupled with the stabilized platforms to give a complete closed-loop control system.

INDEPENDENT ENGINEERING ASSESSMENT, ANALYSIS, AND TESTING

A robust capability to conduct assessment and testing for engineering applications in the following areas. (Many of the testing and assessment capabilities can be applied in a "field or lab" environment, ranging from lab-scale to full-scale efforts.)

- Heat transfer, thermo-structural, and fluid-structure interaction.
- Dynamic, flow, and strain testing.
- Simulated environment testing including aging studies, temperature & humidity, and corrosion testing.
- Reverse engineering, failure investigation, and remediation.
- Applications include aerospace, defense, and industrial equipment.





MATERIALS CHARACTERIZATION

Mechanical, thermal, and physical properties testing of composite materials and refactory metals – Temps from -260 to +3030°C with full instrumentation

- Specialty chemistry, permeability, moisture behavior
- Deep composites engineering expertise:
- > 20 composites engineers on-site
- Accurate and precise data
- Program and development partners
- Latest equipment and fixtures, environmental conditioning chambers, FAA conformance capable
- Aero-thermal modeling and characterization
- High-powered laser, arc-jet, and wind tunnel

COMPOSITESTRUCTURESDEVELOPMENT

Rapid, turnkey transition of heavy or metallic structures and components to composite materials

- At or below existing component cost, we specialize in low-cost composite processes
- Improve structural performance, lighter weight, non-corroding, better toughness, improved damping, EMI shielding, and other engineered performance improvements

Highly experienced composites engineers and developers work with customer engineering personnel to enable composite structures and products.

STRUCTURAL AND STATIC LOAD TESTING

• Structural and static load testing of component, sub-assembly, and full-scale structures for military,

aerospace, and commercial applications.

• Comprehensive knowledge of composite materials, material models, mechanics of materials, instrumentation, hydraulic control, and test design.





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Engineering Service Descriptions

SINs	SIN Description	Engineering Discipline
871-1	Strategic Planning for Technology Programs/Activity	Chemical, Electrical, Mechanical
871-2	Concept Development and Requirements Analysis	Chemical, Civil, Electrical, Mechanical
871-3	System Design, Engineering and Integration	Chemical, Civil, Electrical, Mechanical
871-4	Test and Evaluation	Chemical, Civil, Electrical, Mechanical
871-5	Integrated Logistics Support	Chemical, Civil, Mechanical

871-1 Strategic Planning for Technology Programs/activity

Services provided involve the definition and interpretation of high level organizational engineering performance requirements such as projects, systems, missions, etc., and the objectives and approaches to their achievement. This includes analysis of mission, program goals and objectives, program evaluations, analysis of program effectiveness, requirements analysis, organizational performance assessment, special studies and analysis, training, and consulting.

Southern Research Institute has demonstrated solid performance within this area in the use of technology planning on major NASA spacecraft and DOD related space vehicle programs. This includes strategic planning of technology applications of high temperature materials for the space shuttle to provide thermal protection and prevent fracturing of critical materials during flight. We have provided support to NASA as well as other primary NASA contractors to define program goals and perform detailed technical analysis.

Southern Research has repeatedly been called upon to meet very challenging problems from our federal clients. We have provided substantial assistance in the area of meeting client requirements under the most demanding circumstances and time constraints to include development of a stabilized camera system to be installed an experimental aircraft in support of NASA's return to flight program. We provided strategic planning and the technology application alternatives full integration for the technology to support the client objectives.

871-2 Concept Development and Requirements Analysis

Services provided include concept studies and analysis, requirements definition, preliminary planning, the evaluation of alternative technical approaches and associated costs for the development of enhancement of high level general performance specifications of a system, project, mission or activity. Typical associated tasks include, but are not limited to requirements analysis, cost/cost performance trade-off analysis, feasibility analysis as they relate to professional engineering services, technology/system conceptual designs.

Southern Research Institute has provided direct support in concept development and requirements analysis for NASA and other DOD contractors in direct support of space and military applications. Our analysis characterized advanced materials using nondestructive microscopy, CT, ultrasonics,

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electrical resistance, energy dispersion spectroscopy x-ray analysis. Chemical analysis was also applied in these areas test leading to requirements determination. We are also seasoned in building and providing testing schedules to fit within customer parameters by senior materials engineers, ceramic specialist, and nondestructive evaluation engineers.

Support for requirements analysis and technology applications includes evaluating performance parameters, component and said the component integration into a troll mechanical systems, meeting very stringent weight and strength requirements all to be integrated into an experimental aircraft for flight at high altitude under demanding operational and environmental constraints.

871-3 System Design, Engineering and Integration

Services provided include the translation of a system (or subsystem, program, project, activity) concept into a preliminary and detailed design (engineering plans and specifications), performing risk identification/analysis, mitigation, traceability, and then integrating the various components to produce a working prototype or model of the system. Typical associated tasks include design studies and analysis, design review services, developing risk reduction strategies and recommendations to mitigate identified risk conditions, performance-based design reviews, high level detailed specification and scope preparation, configuration, management and document control, fabrication, assembly and simulation/ modeling.

One of our core competencies is to provide independent evaluation for system design and integration. This includes collecting analyzing and providing substantiative engineering information and data to assess material performance characteristics for integration into advanced component structures and providing alternative system design options.

We are experienced at working with clients beginning with a white sheet of paper to assist with systems design, technical and engineering advice, into full system integration for operational application. This can include new production as well as continued refinement of existing systems for optimization and performance.

871-4 Test and Evaluation

Services provided involve the application of various techniques demonstrating that a system (subsystem, program, project or activity) performs in accordance with the objectives outlined in the original design. Typical associated tasks include prototype testing, environmental testing, as they relate to professional engineering services, independent verification and validation, reverse engineering, simulation and modeling (to test the feasibility of a concept), system, quality assurance, and physical testing of the product system.

Southern Research Institute has provided several decades of expertise in test design, test analysis and evaluation, for applications within the space and DOD communities. This includes a full test design and parameters to meet the client specifications for the given application, the conduct of the test, and post test analysis, including recommended alternative approaches as a result of the engineering lessons learned.

This experience in design, test performance and post test analysis involves both applications for high temperature materials, thermal protection systems, operation under extreme environmental conditions, and aeronautical vehicle application and integration.

871-5 Integrated Logistics Support

Services provided include the analysis, planning and detailed design of all engineering specific logistics support including material goods, and operational maintenance and repair of systems, throughout their lifecycles. Typical associated tasks include feasibility analysis, logistics planning, requirements determination, procedures development, conducting research studies, and long-term reliability and maintainability.

Southern Research work about half of the space and defense programs has been deeply embedded with ongoing logistics support to include ongoing maintenance, sustainment, lifecycle system repair, reverse engineering for obsolete systems, and embedded logistical support.



Appendix A. Labor Category Descriptions

Mechanical Engineer IV (Internal Title: Senior Mechanical Engineer)

General Summary

This position is responsible for consistently generating research in business and technical areas, producing yearly revenues of a set value or providing support for a set number of staff; preparing, presenting, and following up on research proposals of limited to moderate size, scope, or duration; and working under general supervision where work is reviewed for soundness of technical judgment and consistency with organizational goals and strategies. Failure to achieve goals will usually result in project delays or expenditure of unbudgeted resources.

Kev Responsibilities

- Apply scientific concepts, theories, and practices in creative and innovative ways.
- Generate research in business and technical areas, producing yearly revenues of a set value or providing support for a set number of staff.
- Conduct research projects of moderate size.

Requirements/Minimum Oualifications

• Bachelor's degree in relevant discipline with eight years of relevant experience, Master's in relevant discipline with five years of relevant experience or PhD in relevant discipline with six years relevant experience.

Essential Functions/Competencies

- Frequently contributes to the development of new theories and methods.
- Exerts significant latitude in determining objectives of assignment.
- May have direct and/or indirect supervision of other engineers and/or engineering technicians.

Mechanical Engineer III (Internal Title: Advanced Mechanical Engineer)

General Summary

This position is responsible for independently evaluating, selecting, interpreting, and applying standard engineering/scientific techniques, processes, and criteria, and using judgment in making adaptations and modifications to research projects.

Kev Responsibilities

• Maintains knowledge and awareness of engineering discipline through familiarity with current engineering literature and state of technology in the field.

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• Prepares and present reports, presentations, and papers to clients and the professional community.

Requirements/Minimum Oualifications

• Bachelor's degree in relevant discipline with six years of related experience, Master's in relevant discipline with three years of related experience or PhD in relevant discipline.

Mechanical Engineer II (Internal Title: Mechanical Engineer)

General Summary

This position is responsible for collecting, calculating, adjusting, and evaluating data, recognizing discrepancies in results, and following operations through a series of detailed steps or processes.

Kev Responsibilities

- Work on problems where analysis of data requires thorough knowledge of the underlying scientific principles and experimental procedures.
- Exercise judgment in developing methods, techniques, and evaluation criteria for obtaining results.

Requirements/Minimum Qualifications

• Bachelor's degree in relevant discipline with three years of relevant experience or Master's in relevant discipline.

Essential Functions/Competencies

- Full use and application of standard principles, theories, concepts and techniques.
- Follows standard procedures and techniques.

Mechanical Engineer I (Internal Title: Associate Mechanical Engineer)

General Summary

This position is responsible for collecting, calculating, adjusting, and evaluating data, recognizing discrepancies in results, and following operations through a series of detailed steps or processes.

Key Responsibilities

- Work on problems where analysis of data requires thorough knowledge of the underlying scientific principles and experimental procedures.
- Exercise judgment in developing methods, techniques, and evaluation criteria for obtaining results.
- Maintain knowledge of scientific discipline through familiarity with current scientific literature.
- Conduct experimental procedures and collect, analyze, and interpret results for review by more



Experienced researchers or management.

• Compile and analyze research results and arrive at preliminary interpretations.

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• Perform other duties as may be required by supervisor.

Requirements/Minimum Qualifications

• Bachelor's degree in relevant discipline and 1 year experience or a Master's Degree in a relevant discipline.

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RESEARCH

Essential Functions/Competencies

- Limited use and/or application of basic principles, theories, and concepts.
- Follows specific, outlined, and detailed procedures and instructions.

Materials Engineer IV (Internal Title: Senior Materials Engineer)

General Summary

This position is responsible for consistently generating research in business and technical areas, producing yearly revenues of a set value or providing support for a set number of staff; preparing, presenting, and following up on research proposals of limited to moderate size, scope, or duration; and working under general supervision where work is reviewed for soundness of technical judgement and consistency with organizational goals and strategies. Failure to achieve goals will usually result in project delays or expenditure of unbudgeted resources.

Kev Responsibilities

- Apply scientific concepts, theories, and practices in creative and innovative ways.
- Generate research in business and technical areas, producing yearly revenues of a set value or providing support for a set number of staff.
- Conduct research projects of moderate size.
- Prepare, present, and follow-up on research proposals of limited to moderate size, scope, or duration.
- Responsible for generating research projects or project tasks of limited to moderate size, scope, or duration.
- Develop or direct the development of research findings, draw conclusions, and make recommendations.
- Recommend changes in procedures and devise new approaches to deal with problems encountered.
- Review progress and evaluate results on research projects.
- Prepare and present reports to clients and the professional community.
- Meet research goals within time and cost constraints.
- Lead marketing and project development activities in defined market areas.
- Interact with research scientists and associates in multiple areas of the Institute.
- Participate in the technical evaluation of assigned staff and in the identification of their development needs.

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• Perform other duties as may be required by supervisor.

Requirements/Minimum Qualifications

• Bachelor's degree in relevant discipline with eight years of relevant experience, Master's in relevant discipline with five years of relevant experience or PhD in relevant discipline with six years relevant experience.

Essential Functions/Competencies

- Frequently contributes to the development of new theories and methods.
- Exerts significant latitude in determining objectives of assignment. May have direct and/or indirect supervision of other engineers and/or engineering technicians.

Materials Engineer III (Internal Title: Advanced Materials Engineer)

General Summary

This position is responsible for independently evaluating, selecting, interpreting, and applying standard engineering/scientific techniques, processes, and criteria, and using judgment in making adaptations and modifications to research projects.

Kev Responsibilities

- Maintains knowledge and awareness of engineering discipline through familiarity with current engineering literature and state of technology in the field.
- Independently evaluates, selects, interprets, and applies standard engineering techniques, processes, and criteria, and uses judgment in making adaptations and modifications to research projects.
- Contributes to the design of research projects and prepare, present, and follow up on research proposals to clients.
- Contributes to project development activities.

Requirements/Minimum Qualifications

Bachelor's degree in relevant discipline with six years of related experience, Master's in relevant discipline with three years of related experience or PhD in relevant discipline.

Materials Engineer II (Internal Title: Materials Engineer)

General Summary

This position is responsible for collecting, calculating, adjusting, and evaluating data, recognizing discrepancies in results, and following operations through a series of detailed steps or processes.

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Key Responsibilities

- Work on problems where analysis of data requires thorough knowledge of the underlying scientific principles and experimental procedures.
- Exercise judgment in developing methods, techniques, and evaluation criteria for obtaining results.
- Maintain knowledge of scientific discipline through familiarity with current scientific literature.
- Conduct experimental procedures and collect, analyze, and interpret results for review by more experienced researchers or management.
- Compile and analyze research results and arrive at preliminary interpretations.
- Ability to evaluate experimental design and methods and recommend alternative and improved methods of achieving desired results.
- Perform other duties as may be required by supervisor.

Requirements/Minimum Qualifications

• Bachelor's degree in relevant discipline with three years of relevant experience or Master's in relevant discipline.

Essential Functions/Competencies

- Full use and application of standard principles, theories, concepts and techniques.
- Follows standard procedures and techniques.

Materials Engineer I (Internal Title: Associate Materials Engineer)

General Summary

This position is responsible for collecting, calculating, adjusting, and evaluating data, recognizing discrepancies in results, and following operations through a series of detailed steps or processes.

Kev Responsibilities

- Work on problems where analysis of data requires thorough knowledge of the underlying scientific principles and experimental procedures.
- Exercise judgment in developing methods, techniques, and evaluation criteria for obtaining results.
- Maintain knowledge of scientific discipline through familiarity with current scientific literature.
- Conduct experimental procedures and collect, analyze, and interpret results for review by more experienced researchers or management.
- Compile and analyze research results and arrive at preliminary interpretations.
- Perform other duties as may be required by supervisor.

Requirements/Minimum Oualifications

• Bachelor's degree in relevant discipline and one year relevant experience or a Master's Degree in a relevant discipline.

Essential Functions/Competencies

Essential Functions/Competencies

- Limited use and/or application of basic principles, theories, and concepts.
- Follows specific, outlined, and detailed procedures and instructions.

Electrical Engineer IV (Internal Title: Senior Electrical Engineer)

General Summary

This position is responsible for consistently generating research in business and technical areas, producing yearly revenues of a set value or providing support for a set number of staff; preparing, presenting, and following up on research proposals of limited to moderate size, scope, or duration; and working under general supervision where work is reviewed for soundness of technical judgment and consistency with organizational goals and strategies. Failure to achieve goals will usually result in project delays or expenditure of unbudgeted resources.

Kev Responsibilities

- Apply scientific concepts, theories, and practices in creative and innovative ways.
- Generate research in business and technical areas, producing yearly revenues of a set value or providing support for a set number of staff.
- Conduct research projects of moderate size.

Requirements/Minimum Oualifications

• Bachelor's degree in relevant discipline with eight years of relevant experience, Master's in relevant discipline with five years of relevant experience or PhD in relevant discipline with six years relevant experience.

Essential Functions/Competencies

- Frequently contributes to the development of new theories and methods.
- Exerts significant latitude in determining objectives of assignment.
- May have direct and/or indirect supervision of other engineers and/or engineering technicians.

Electrical Engineer III (Internal Title: Advanced Electrical Engineer)

General Summary

This position is responsible for independently evaluating, selecting, interpreting, and applying standard engineering/scientific techniques, processes, and criteria, and using judgment in making adaptations and modifications to research projects.

Kev Responsibilities

• Maintains knowledge and awareness of engineering discipline through familiarity with current

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engineering literature and state of technology in the field.

• Conducts experimental procedures and collects, analyzes, and interprets results for review by more experienced researchers or management.

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- Independently evaluates, selects, interprets, and applies standard engineering techniques, processes, and criteria, and uses judgment in making adaptations and modifications to research projects.
- Contributes to the design of research projects and prepare, present, and follow up on research proposals to clients.

Requirements/Minimum Oualifications

Bachelor's degree in relevant discipline with six years of relevant experience, Master's in relevant discipline with three years of relevant experience or PhD in relevant discipline.

Electrical Engineer II (Internal Title: Electrical Engineer)

General Summary

This position is responsible for collecting, calculating, adjusting, and evaluating data, recognizing discrepancies in results, and following operations through a series of detailed steps or processes.

Kev Responsibilities

- Work on problems where analysis of data requires thorough knowledge of the underlying scientific principles and experimental procedures.
- Exercise judgment in developing methods, techniques, and evaluation criteria for obtaining results.
- Maintain knowledge of scientific discipline through familiarity with current scientific literature.
- Conduct experimental procedures and collect, analyze, and interpret results for review by more experienced researchers or management.
- Compile and analyze research results and arrive at preliminary interpretations.
- Ability to evaluate experimental design and methods and recommend alternative and improved methods of achieving desired results.
- Perform other duties as may be required by supervisor.

Requirements/Minimum Oualifications

• Bachelor's degree in relevant discipline with three years of relevant experience or Master's in relevant discipline.

Essential Functions/Competencies

- Full use and application of standard principles, theories, concepts and techniques.
- Follows standard procedures and techniques.

Electrical Engineer I (Internal Title: Associate Electrical Engineer)

General Summary

This position is responsible for collecting, calculating, adjusting, and evaluating data, recognizing discrepancies in results, and following operations through a series of detailed steps or processes.

Kev Responsibilities

- Works on problems where analysis of data requires thorough knowledge of the underlying engineering principles and experimental procedures.
- Exercises judgment in developing methods, techniques, and evaluation criteria for obtaining results.

<u>Requirements/Minimum Oualifications</u> Bachelor's degree in relevant discipline with one year relevant experience or Master's in relevant discipline.

Chemical Engineer I (Internal Title: Associate Chemical Engineer)

General Summary

This position is responsible for collecting, calculating, adjusting, and evaluating data, recognizing discrepancies in results, and following operations through a series of detailed steps or processes.

Key Responsibilities

- Works on problems where analysis of data requires thorough knowledge of the underlying scientific principles and experimental procedures.
- Conducts experimental procedures and collect, analyze, and interpret results for review by more experienced researchers or management.

Requirements/Minimum Oualifications

• Bachelor's degree in relevant discipline with one year relevant experience or Master's in relevant discipline.

Design Technician (Internal Title: Design Technician)

General Summary

This position is responsible for performing a range of tests and procedures using scientific techniques and methods; recording, analyzing, and reporting results; and working with instruction under general supervision.

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Key Responsibilities

- Performs material characterization tests and related activities.
- Helps develop processes and procedures for assembling hardware in accordance with engineering and appropriate specifications.

Requirements/Minimum Oualifications

- High School diploma with two years of relevant experience or AS degree in a related discipline with one year of relevant experience.
- Broad application of principles, theories, concepts and techniques, plus working knowledge of other related fields.

Technician IV (Internal Title: Lead Engineering Technician)

General Summary

This position provides oversight to work of engineering technicians and is responsible for performing a broad range of tests and procedures using scientific techniques and methods; recording, analyzing, and reporting results; and working with limited instruction under general supervision.

Kev Responsibilities

- Supervises the work of other technicians
- Works under minimal supervision.
- Exerts significant latitude in determining objectives of assignment.
- Perform material characterization tests and related activities.
- Develop processes and procedures for assembling hardware in accordance with engineering and appropriate specifications.

Requirements/Minimum Oualifications

- High School diploma with eight years of relevant experience or AS degree in a related discipline with three years relevant experience.
- Proficiencies in all technical areas of supervision
- Broad application of principles, theories, concepts and techniques, plus working knowledge of other related fields.

Technician III (Internal Title: Senior Engineering Technician)

General Summary

This position is responsible for performing a broad range of tests and procedures using scientific techniques and methods; recording, analyzing, and reporting results; and working with limited instruction under general supervision.

Page 2 C

Kev Responsibilities

- Perform material characterization tests and related activities.
- Develop processes and procedures for assembling hardware in accordance with engineering and appropriate specifications.

Requirements/Minimum Oualifications

- High School diploma with six years of relevant experience or AS degree in a related discipline with three years relevant experience.
- Broad application of principles, theories, concepts and techniques, plus working knowledge of other related fields.

Technician II (Internal Title: Advanced Engineering Technician)

General Summary

This position is responsible for performing varied but standardized tests and procedures using scientific techniques and methods; recording, analyzing, and reporting results; and working under direct supervision.

Kev Responsibilities

- Perform material characterization tests and related activities.
- Perform assembly, test, and checkout of electromechanical devices that require adherence to strict standards and processes.

Requirements/Minimum Qualifications

- High School diploma with three years of relevant experience or AS degree in a related discipline.
- Full use and application of standard principles, theories, concepts and techniques.

Technician I (Internal Title: Engineering Technician)

General Summary

This position is responsible for performing a variety of assigned tasks that are planned to provide experience and familiarization with the specific and/or engineering methods, practices, and programs of the research facility and the organization in general.

Kev Responsibilities

- Apply basic and some advanced skills in procedures, techniques, tools, materials and/or equipment appropriate to area of specialization.
- Perform electronic print wiring board assembly and/or assembly of related mechanical hardware.
- Inspect printed wiring board assemblies per established procedures.

• Perform material characterization tests and related activities.

Requirements/Minimum Oualifications

• High School diploma and one year relevant experience or an Associate's degree in a related discipline.

Engineering Machinist II (Internal Title: Senior Machinist)

General Summary

This position is responsible for performing close tolerance and high quality machine work in a timely and cost effective manner on the most complex tasks.

Kev Responsibilities

- Perform precision machining working with saws, drills, milling machines, lathes, surface grinders, cylindrical grinders and a variety of measuring instruments.
- Interpret blueprints, sketches, and verbal instructions
- Supervise other machinists

Requirements/Minimum Oualifications

• High School diploma and six years of relevant experience or an Associate's degree in a related discipline plus three years relevant experience

Engineering Machinist I (Internal Title: Machinist)

General Summary

This position is responsible for performing quality machining work in a timely and cost effective manner, typically on less complex tasks than those performed by more experienced machinists.

Kev Responsibilities

- Perform work with shop equipment including lathe, mills, grinders, and measuring tools
- Interpret blueprints, sketches, and verbal instructions

Requirements/Minimum Oualifications

• High School diploma or GED is required. A minimum of 2 years machine shop education and/or demonstrated job experience is required.

Administrative Assistant (Internal Title: Administrative Coordinator)

General Summary

This position is responsible for providing administrative support who will work closely with leadership, assigned project team members, program managers, and customers for the business operations.

Key Responsibilities

- Responsible for the organization of meetings, agendas, report generation, routine correspondence, department presentations, tracking of various matrices/projects, marketing outreach initiatives, and divisional new hire orientation.
- Coordinate initiatives with customers, outside vendors, and subcontractors.
- Ensures continuation of communication in the absence of leadership to team and interprets requests and implementation efforts in an efficient and timely manner.
- Perform other administrative support duties as may be required by leadership and other department managers.

Requirements/Minimum Oualifications

- BS in business or related area from an accredited institution plus one year relevant experience.
- Excellent written and oral communication skills.

Appendix B. Labor Rates (\$/hour)

	Contractor Site Lab Work - 2017									
	PS	S Awarded	PS	S Awarded	PS	SS Awarded	PS	SS Awarded	PS	S Awarded
Labor Category		Year 1		Year 2		Year 3		Year 4		Year 5
Mechanical Engineer IV	\$	164.17	\$	166.96	\$	169.80	\$	172.69	\$	175.62
Mechanical Engineer III	\$	158.94	\$	161.64	\$	164.39	\$	167.18	\$	170.03
Mechanical Engineer II	\$	146.43	\$	148.92	\$	151.45	\$	154.03	\$	156.64
Mechanical Engineer I	\$	118.34	\$	120.35	\$	122.40	\$	124.48	\$	126.60
Materials Engineers IV	\$	164.17	\$	166.96	\$	169.80	\$	172.69	\$	175.62
Materials Engineers III	\$	158.94	\$	161.64	\$	164.39	\$	167.18	\$	170.03
Materials Engineers II	\$	146.43	\$	148.92	\$	151.45	\$	154.03	\$	156.64
Materials Engineers I	\$	143.43	\$	145.87	\$	148.35	\$	150.87	\$	153.43
Electrical Engineers IV	\$	266.33	\$	270.86	\$	275.47	\$	280.15	\$	284.91
Electrical Engineers III	\$	214.63	\$	218.28	\$	221.99	\$	225.76	\$	229.60
Electrical Engineers II	\$	185.58	\$	188.74	\$	191.95	\$	195.21	\$	198.53
Electrical Engineers I	\$	148.80	\$	151.33	\$	153.90	\$	156.61	\$	159.17
Chemical Engineer I	\$	141.17	\$	143.57	\$	146.01	\$	148.50	\$	151.02
Design Technician	\$	128.32	\$	130.50	\$	132.72	\$	134.97	\$	137.27
TechnicianIV	\$	149.73	\$	152.28	\$	154.86	\$	157.50	\$	160.17
TechnicianIII	\$	127.37	\$	129.54	\$	131.74	\$	133.98	\$	136.26
Technician II	\$	96.93	\$	98.58	\$	100.25	\$	101.96	\$	103.69
Technician I	\$	86.26	\$	87.73	\$	89.22	\$	90.73	\$	92.28
Engineering Machinist II	\$	139.16	\$	141.53	\$	143.93	\$	146.38	\$	148.87
Engineering Machinist I	\$	92.39	\$	93.96	\$	95.55	\$	97.18	\$	98.83
Administrative Support	\$	91.11	\$	92.66	\$	94.23	\$	95.84	\$	97.46



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	Contractor Site Non-Lab Work - 2011									
	PS	S Awarded	PS	S Awarded	P	SS Awarded	P	SS Awarded	PS	S Awarded
Labor Category		Year 1		Year 2		Year 3		Year 4		Year 5
Mechanical Engineer IV	\$	137.80	\$	140.14	\$	142.53	\$	144.95	\$	147.41
Mechanical Engineer III	\$	133.41	\$	135.68	\$	137.98	\$	140.33	\$	142.72
Mechanical Engineer II	\$	122.91	\$	125.00	\$	127.12	\$	129.29	\$	131.48
Mechanical Engineer I	\$	99.34	\$	101.03	\$	102.74	\$	104.49	\$	106.27
Materials Engineers IV	\$	137.80	\$	140.14	\$	142.53	\$	144.95	\$	147.40
Materials Engineers III	\$	133.41	\$	135.68	\$	137.99	\$	140.33	\$	142.73
Materials Engineers II	\$	122.91	\$	125.00	\$	127.12	\$	129.29	\$	131.49
Materials Engineers I	\$	120.39	\$	122.43	\$	124.51	\$	126.63	\$	128.78
Electrical Engineers IV	\$	223.57	\$	227.37	\$	231.24	\$	235.17	\$	239.17
Electrical Engineers III	\$	180.17	\$	183.24	\$	186.35	\$	189.52	\$	192.74
Electrical Engineers II	\$	155.78	\$	158.43	\$	161.12	\$	163.86	\$	166.65
Electrical Engineers I	\$	124.90	\$	127.02	\$	129.18	\$	131.37	\$	133.61
Chemical Engineer I	\$	118.51	\$	120.52	\$	122.57	\$	124.65	\$	126.77
DesignTechnician	\$	107.72	\$	109.55	\$	111.41	\$	113.30	\$	115.23
Technician IV	\$	125.69	\$	127.82	\$	130.00	\$	132.21	\$	134.46
Technician III	\$	106.90	\$	108.72	\$	110.57	\$	112.45	\$	114.36
Technician II	\$	81.34	\$	82.73	\$	84.13	\$	85.56	\$	87.02
Technician I	\$	72.40	\$	73.63	\$	74.88	\$	76.16	\$	77.45
AdministrativeSupport	\$	76.50	\$	77.80	\$	79.13	\$	80.47	\$	81.84

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	Government Owned, Government Operated Site - 2011									
	PS	S Awarded	PS	SS Awarded	PS	SS Awarded	PS	SS Awarded	PS	S Awarded
Labor Category		Year 1		Year 2		Year 3		Year 4		Year 5
Mechanical Engineer IV	\$	120.27	\$	122.31	\$	124.39	\$	126.51	\$	128.66
Mechanical Engineer III	\$	116.44	\$	118.42	\$	120.43	\$	122.48	\$	124.56
Mechanical Engineer II	\$	107.27	\$	109.09	\$	110.95	\$	112.83	\$	114.75
Mechanical Engineer I	\$	53.69	\$	54.61	\$	55.53	\$	56.48	\$	57.44
Materials Engineers IV	\$	120.27	\$	122.31	\$	124.39	\$	126.51	\$	128.66
Materials Engineers III	\$	116.44	\$	118.42	\$	120.43	\$	122.48	\$	124.56
Materials Engineers II	\$	107.27	\$	109.09	\$	110.95	\$	112.83	\$	114.75
Materials Engineers I	\$	105.04	\$	106.83	\$	108.65	\$	110.49	\$	112.37
Electrical Engineers IV	\$	195.11	\$	198.43	\$	201.80	\$	205.23	\$	208.72
Electrical Engineers III	\$	157.23	\$	159.90	\$	162.62	\$	165.39	\$	168.20
Electrical Engineers II	\$	135.94	\$	138.25	\$	140.60	\$	142.99	\$	145.42
Electrical Engineers I	\$	108.98	\$	110.83	\$	112.72	\$	114.63	\$	116.58
Chemical Engineer I	\$	103.41	\$	105.16	\$	106.95	\$	108.77	\$	110.62
Design Technician	\$	94.00	\$	95.60	\$	97.23	\$	98.88	\$	100.56
Technician IV	\$	109.69	\$	111.55	\$	113.45	\$	115.38	\$	117.34
Technician III	\$	93.31	\$	94.90	\$	96.51	\$	98.15	\$	99.82
Technician II	\$	71.00	\$	72.21	\$	73.44	\$	74.69	\$	75.96
Technician I	\$	63.19	\$	64.26	\$	65.35	\$	66.46	\$	67.59
Administrative Support	\$	66.72	\$	67.85	\$	69.00	\$	70.18	\$	71.37

Government Owned, Contractor Operated Site - 2011

	PS	S Awarded	PS	SS Awarded	SS Awarded	PS	SS Awarded	PS	S Awarded
Labor Category	-	Year 1		Year 2	Year 3		Year 4		Year 5
Mechanical Engineer IV	\$	82.64	\$	84.04	\$ 85.47	\$	86.93	\$	88.40
Mechanical Engineer III	\$	80.01	\$	81.37	\$ 82.75	\$	84.16	\$	85.59
Mechanical Engineer II	\$	73.71	\$	74.96	\$ 76.24	\$	77.53	\$	78.85
Mechanical Engineer I	\$	59.58	\$	60.59	\$ 61.62	\$	62.67	\$	63.73
Materials Engineers IV	\$	82.64	\$	84.04	\$ 85.47	\$	86.93	\$	88.40
Materials Engineers III	\$	80.01	\$	81.37	\$ 82.75	\$	84.16	\$	85.59
Materials Engineers II	\$	73.71	\$	74.96	\$ 76.24	\$	77.53	\$	78.85
Materials Engineers I	\$	72.19	\$	73.42	\$ 74.67	\$	75.94	\$	77.23
Electrical Engineers IV	\$	134.08	\$	136.36	\$ 138.68	\$	141.03	\$	143.43
Electrical Engineers III	\$	108.07	\$	109.91	\$ 111.77	\$	113.67	\$	115.61
Electrical Engineers II	\$	93.44	\$	95.03	\$ 96.65	\$	98.29	\$	99.96
Electrical Engineers I	\$	74.91	\$	76.18	\$ 77.48	\$	78.79	\$	80.13
Chemical Engineer I	\$	71.07	\$	72.28	\$ 73.51	\$	74.76	\$	76.03
Design Technician	\$	64.60	\$	65.70	\$ 66.82	\$	67.95	\$	69.11
Technician IV	\$	75.39	\$	76.67	\$ 77.98	\$	79.30	\$	80.65
Technician III	\$	64.12	\$	65.21	\$ 66.32	\$	67.45	\$	68.59
Technician II	\$	48.79	\$	49.62	\$ 50.46	\$	51.32	\$	52.19
Technician I	\$	43.42	\$	44.16	\$ 44.91	\$	45.67	\$	46.45
Administrative Support	\$	45.86	\$	46.64	\$ 47.44	\$	48.24	\$	49.06

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The Service Contract Act (SCA) is applicable to this contract and it includes SCA applicable labor categories. The prices for the indicated SCA labor categories are based on the U.S. Department of Labor Wage Determination Number(s) identified in the SCA matrix. The prices offered are based on the preponderance of where work is performed and should the contractor perform in an area with lower SCA rates, resulting in lower wages being paid, the task order prices will be discounted accordingly.

SCA Eligible Contract Labor Category	SCA Equivalent Code Title	WD Number
DesignTechnician	30062 - Drafter / CAD Operator II	2005-2003
Technician IV	30084 - Engineering Technician IV	2005-2003
Technician III	30083 - Engineeirng Technician III	2005-2003
Technician II	30082 - Engineering Technician II	2005-2003
Technician I	30081 - Engineering Technician I	2005-2003
AdministrativeSupport	01313 - Secretary III	2005-2003

