Position: Electronics Engineer (Level II)

DEPARTMENT: Research will be done under the auspices of the Psychology Department at San José State University

IMMEDIATE SUPERVISOR: Project Director

POSTING DATE: January 4, 2019

CLOSING DATE: Open until filled

SALARY: Range: 99k - 120k /DOQ/E plus excellent benefits

EXEMPT STATUS: Exempt (Salary) Full Time Benefited

GENERAL NATURE OF POSITION:

The Psychology Department at San Jose State University is involved in collaborative research efforts with civil service scientists from the U.S. Army Aviation Development Directorate Research Group at the NASA Ames Research Center in Mountain View, CA. The applicant will serve as an Electronics Engineer within the Engineering Group of the Army’s 7x10 Wind Tunnel Operations Branch located at Moffett Field. The Engineering Group provides support for wind tunnel operations and three system integration lab facilities supporting aircraft simulation, development and systems integration.

We seek an Electronics Engineer to manage the design, development and integration of application software in support of wind tunnel operations and the data acquisition system. As such, the incumbent will be required to develop and maintain software tools and simulations essential to support the wind tunnel system, diagnose software/hardware defects, validate software fixes, and as necessary, determine the system failure.

Secondly, the incumbent would be responsible for the engineering design and analysis of communications, data acquisition, and/or power systems associated with the wind tunnel and the system integration lab facilities.

In this position, you will have the opportunity to work with people across NASA and to hear and learn about upcoming missions and how our program helps support them.

ESSENTIAL DUTIES & RESPONSIBILITIES:

a) Modify and develop LabVIEW based data acquisition system software to accommodate customer test requirements.

b) Operate instrumentation used in wind tunnel and lab testing to include pressure, temperature, force, angle, and motion measurement equipment.

c) Manage the wind tunnel’s lab network while complying with DoD IT requirements and provide recommendations to incoming tunnel tests.
d) Understand the Application Programmable Interface (API) from other hardware/software and integrate into the existing wind tunnel system.

e) Provide technical support on customer developed wind tunnel test articles and be able to offer guidance to wind tunnel technicians, test directors, and principle investigators.

f) Ensure that the technical, system, performance and quality requirements are consistent with established customer and organizational engineering principles and practices.

g) Develop and/or modify electrical designs and schematics for communications, data and/or power systems in support of the wind tunnel and the system integration lab facilities.

h) Create and modify electrical design drawings in support of the wind tunnel and lab facilities

i) Other duties and tasks as assigned.

INTERPERSONAL CONTACTS:
1) Reports to the Project Director
2) Interacts with Foundation research staff and Army civil service staff on a daily basis

QUALIFICATIONS:
1) Education and Experience:
   a) Bachelor’s degree in Aerospace, Electrical, Electronics or Computer Engineering with minimum of 2-5 years of professional experience
   b) Minimum of 1-3 years of experience with LabVIEW software. Experience with AutoCAD, Matlab/Simulink, C++, C and/or Python are desired, but not required.
   c) Minimum of 1-3 years of experience with Pacific Instruments (PI), National Instruments (NI) (CompactDAQ, cRIO, PXI, SCXI, Field Point) and/or other hardware products. Experience with wind tunnel, rotorcraft, or other aerospace research facilities desired, but not required.
   d) Experience writing support documents such as test system software requirements, user manuals and tools documentation, and/or software validation documents. 1-3 years of experience preferred.
   e) Experience with strain gauges, static and dynamic pressure transducers, accelerometers, signal amplifiers, instrument metrology, and basic test and measurement equipment (volt meters, microscopes, oscilloscopes, calipers, video camera equipment). Experience with optical measurement techniques (PIV) and/or acoustic microphone measurement desired, but not required. 1-3 years of experience preferred.

2) Knowledge, Skills, Abilities required:
   a) Knowledge of computing communication busses such as Ethernet and RS232.
   b) Demonstrate analytical/experimental problem-solving skills to understand hardware, software, and integrated systems to be able to quickly analyze and resolve system inter-operability problems.
   c) Ability to read, understand, and produce electrical & control systems schematics and relay logic circuits.
   d) Ability to work independently or as part of a team with exceptional communication skills (verbal and written).
   e) Ability to organize and analyze data.

3) COMPLEXITY OF DUTIES:
   a) Exercise independent judgment in the management and completion of a diverse and complex set of tasks.
4) **Physical Requirements**  
a) Able to travel domestically to other NASA centers or facilities as field research requires.  
b) Located at the NASA Ames Research Center. Therefore, employee must meet security qualifications for entrance to the Center.  
c) Employee will be a US citizen or Permanent Resident.

5) **BENEFITS:**  
   **The comprehensive benefit package includes:**  
   a) Nine Health Insurance Plans to choose from  
   b) Free dental and vision for employee and family  
   c) Paid Federal & State Holidays  
   d) Retirement Plan: 403 (b) employee contribution plan component and a 403 (b) employer contribution component  
   e) Vacation and separate sick plans  
   f) Employee Discounts  
   g) Paid Training and Conferences  
   h) Increases based on merit (performance)

**SUPERVISORY RESPONSIBILITIES:**

None, though may be called upon for advice and direction by others.

**APPLICATION PROCEDURE**  
To apply for this position, an applicant must submit a formal application for employment, as well as a resume and a cover letter. The applicant may do this via e-mail or by regular mail. The formal employment application is located at [http://www.sjsu.edu/researchfoundation/open/Employment%20Application%20Form_new.pdf](http://www.sjsu.edu/researchfoundation/open/Employment%20Application%20Form_new.pdf)

It may also be obtained from the Research Foundation through its web site at [http://www.sjsu.edu/researchfoundation/open/index.html](http://www.sjsu.edu/researchfoundation/open/index.html).

An applicant may also apply in person by visiting the Research Foundation, located at 210 North 4th Street, 4th Floor, San Jose, CA (corner of St. James and North 4th Streets). Please address your formal application, your resume and your letter of interest directly to:

San Jose State University Research Foundation  
Attn: HR/Job Code **Engineer**  
210 North 4th Street  
San Jose, CA  95112  
E-mail: foundation-jobs@sjsu.edu

**Reasonable Accommodation:**  
The San Jose State Research Foundation is committed to providing access, equal opportunity and reasonable accommodation for individuals with physical or mental disabilities in the employment, recruitment, examination, hiring and interviewing processes. If you are a job seeker with a physical or mental disability and require a reasonable accommodation to search, apply, or interview for a job opening or otherwise need a reasonable accommodation during the application and hiring process, please contact us at foundation-jobs@sjsu.edu. In the email message, please indicate your full name, phone number and the type of assistance required. You must not reveal the underlying medical reason for your needed reasonable accommodation or otherwise disclose confidential medical information. You may also call (408) 924-1400 from 8:00am to 5:00pm (PST), Monday through Friday, excluding holidays, to get assistance.
The Research Foundation provides excellent benefits package to benefited employees. Please visit http://www.sjsu.edu/researchfoundation/humanresources/healthbenefits/index.html to get more details.

Research Foundation employment is separate and distinct from San Jose State University or State of California employment. Research Foundation employees are not employees of either SJSU or of the state of California.

The San Jose State University Research Foundation (SJSURF) is a non-profit auxiliary of San Jose State University. SJSURF is totally self supported. The majority of the organization’s funding comes from the federal government, and other public and private entities. With annual revenues totaling over $65 million, programs managed through SJSURF cover a rich diversity of applied research, public services, and educational related activities.

SAN JOSE STATE UNIVERSITY RESEARCH FOUNDATION is an Equal Opportunity Employer and does not discriminate on the basis of race, color, creed, gender, religion, marital status, registered domestic partner status, age, national origin, ancestry, physical or mental disability, medical condition, sex, genetic information, sexual orientation, military and veteran status or any other consideration made unlawful by federal, state, or local laws. It also prohibits unlawful discrimination based on the perception that anyone has any of those characteristics, or is associated with a person who has or is perceived as having any of those characteristics.

The SJSURF has implemented California State University Executive Order 1083 (http://www.calstate.edu/eco/EO-1083.pdf). By policy, all SJSURF employees are mandated reporters for suspected child abuse or neglect and are expected to undergo formal training in accordance with the directives of the Executive Order.

The SJSURF has also implemented California State University Policy Memorandum HR 2015 – 08 (http://www.calstate.edu/HRAdm/pdf2015/HR2015-08.pdf).

A background check (including a criminal records check) must be completed satisfactorily before any candidate can be offered a position with the SJSURF. Failure to satisfactorily complete the background check may affect the application status of applicants or continued employment of current SJSURF employees who apply for the position.