The Department of Psychology at San José State University is involved in collaborative research efforts with civil service scientists from the Human Systems Integration Division at the NASA Ames Research Center in Mountain View, CA. The research is centered on the integration of autonomous systems into the National Airspace System (NAS) and will be conducted in the Airspace Operations Laboratory (AOL). We are seeking an individual to participate in the conduct of human-in-the-loop (HITL) simulations and field demonstrations related to Urban Air Mobility (UAM) concepts.

Our work environment is very open, collaborative and welcoming; we are a diverse and tight-knit team. We believe that fostering a comfortable workplace for everyone is important! Our team values a healthy approach to our work, from providing adjustable desks to maintaining a balanced work-life schedule. You will contribute to our wide diversity of skills and incorporate new ideas into our environment and have direct exposure to NASA’s culture including deep space missions.

**ESSENTIAL DUTIES & RESPONSIBILITIES:**

a) Work with the human systems integration research in the Airspace Operations Laboratory (AOL).
b) Contribute to the design of effective human-in-the-loop (HITL) simulations for UAM research.
c) Create simulation and field scenarios with the Multi Aircraft Control System (MACS).
d) Lead the development and execution of scenarios that explore UAM concepts of operation.
e) Collaborate with software engineers and research psychologists to develop aviation systems with real-world functional interfaces.

f) Design operations-focused workstations and interfaces which facilitate a positive user experience based on human factors and aviation applications.

g) Interface with the public and industry by representing NASA Ames projects and research during various conferences and public-outreach events to promote NASA aeronautics and agency missions.

h) Prepare and conduct development and evaluation of tools and procedures in the laboratory and the field.

i) Assist with human factors assessments during simulations and field trials.

j) Analyze flight and performance data gathered from HITL simulations and live flight tests.

k) Using Python or other suitable programming languages, build and develop data-analysis tools to help interpret data gathered from HITL simulations and live flight tests.

l) Design back-end software architecture and front-end interfaces for data-analysis tools.

m) Contribute research documents, and data analysis with the development and preparation of publications and presentations related to the research performed by the AOL.

n) Present technical demonstrations to government agencies, industry partners, and visitors.

o) Use problem solving skills as well as internal and external resources to troubleshoot simulation software.

p) Other duties and tasks as assigned.

INTERPERSONAL CONTACTS:
Reports to the Project Director. Interacts with NASA Ames civil service and Research Foundation research staff, on a daily basis.

QUALIFICATIONS:

1) Education and Experience:
   • Doctoral degree (e.g., PhD) in Psychology, Human Factors, Aerospace Engineering, or related field is required.
   • The candidate must have at least one year of experience in the area of human factors in aviation.

2) Knowledge, Skills, Abilities required:
   • Familiarity with aviation and air traffic management operations.
   • Understanding of the basics of conducting research with human participants.
   • Basic knowledge of programming, preferably Python.
   • Ability to use computers configured to simulate a real-time aviation environment.
   • Ability to effectively communicate through verbal and written correspondence with outside contacts including other NASA research labs, university researchers, and subject matter experts to support collaborative research activities.
   • Ability to work independently and as a team member on several tasks within a project and across projects.

3) COMPLEXITY OF DUTIES:
   • Exercise independent judgment in the management and completion of a diverse set of tasks.

4) Physical Requirements
   • Employee must have legal authorization to work in the United States.
   • Some travel required (approximately 3-4 trips per year to flight test locations, other NASA Centers, etc.).
• Located at the NASA Ames Research Center. Therefore, this employee must meet security qualifications for entrance to the Center.

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, although may be called upon for advice and direction by others.

This position description intends to describe the general nature and level of work being performed by people assigned to this job. It is not intended to include all duties and responsibilities. The order in which duties and responsibilities are listed is not significant.

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

It may also be obtained from the Research Foundation through its website at 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 Research Associate/AOL
210 North 4th Street
San Jose, CA 95112
E-mail: foundation-jobs@sjsu.edu

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

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.

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.