



CENTER FOR ADVANCED ENGINEERING AND RESEARCH

Job Description Form

Job Title	Human Factors Research Assistant
Location	Center for Advanced Engineering Research, Bedford County, Virginia
Reports to	Bob Bailey <i>Director (CAER)</i>

Level/Grade	Type of position: <input type="checkbox"/> Full-time <input checked="" type="checkbox"/> Part-time <input type="checkbox"/> Contractor <input checked="" type="checkbox"/> Intern	Variable: 20-40 hours / week <input type="checkbox"/> Exempt <input checked="" type="checkbox"/> Nonexempt
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GENERAL DESCRIPTION

Supports operation of the nuclear power plant (NPP) main control room (MCR) simulator at the Center for Advanced Engineering Research, particularly scheduling and running of human subjects experiments to evaluate different control room design features from a nuclear power plant operations team perspective. The employee's duties include:

- Facilitating human factors and performance oriented experiments in the main control room (MCR) simulator of a nuclear power plant (NPP)
 - Learning the general operation of the nuclear power plant control room simulation setup, including the configurable console operator furniture and understanding the basics of the simulation model software in place that enables running NPP human-in-the-loop experiments
 - Learning how to set up and configure the associated data collection hardware and software designed to collect human performance data (including a head-tracker, eye-tracker, audiovisual recording equipment, and physiological monitoring equipment)
 - Learning the objectives of the planned experiments and working with industry representatives to incorporate subject matter expertise into experimental designs
 - Working with study coordinators to conduct the experiments as advised, including
 - Ensuring that all equipment and recording software is ready and recording as intended, scheduling operator teams to come to the facility, orienting them to the objectives and goals of the experiments as planned, starting and stopping the equipment as scheduled, and "marking" events of interest as defined by study coordinators
 - Collecting behavioral data as needed, including administering questionnaires, interviewing operators, and making informed observations of operator behavior and interactions.
 - Assisting with data analysis, including correlating data sets, performing data analyses of study results, and backing up/archiving data
 - Summarizing study findings and writing scientific/technical papers to support research



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APPLICANT REQUIREMENTS		
<ul style="list-style-type: none">– Strong written and oral communication skills.– Good listening and teamwork skills– Some comfort with configuring and working with software and hardware– Related work, research, or project experience a plus, but not required.		
EDUCATION REQUIREMENTS		
<ul style="list-style-type: none">– At least two years of related coursework from an accredited university in industrial engineering, systems engineering, human factors engineering, behavioral psychology, experimental psychology, computer science, or related fields. Upper level undergraduates or early-level graduate students preferred.– Demonstrated interest in <i>human factors</i>. Preference will be given to students early in their academic progress.		

OTHER INFORMATION	
Duration of employment: September 2011 start. Work through semester, with the possibility to extend beyond at the employer's discretion.	
Hourly rate of pay: \$12.50 an hour, paid monthly.	
Start date: Flexible to start during September 2011.	
APPLICATION PROCESS	
<ul style="list-style-type: none">– Interested applicants should respond with a cover letter describing their interest in science, technology, engineering and math along with any specific career goals. A resume, copy of college transcripts, and a completed Region 2000 application are also required for consideration.– More information and applications are available at www.region2000.org/jobs. Send your application package to "HF Research Assistant" to mgilley@region2000.org, fax 434-845-3493, or mail to Region 2000 LGC, 828 Main Street, 12th floor, Lynchburg, VA 24504.– Applications will be considered beginning September 13, 2011. This solicitation will remain open until filled.	