UNIVERSITY OF SOUTHERN CALIFORNIA

VLSI Design Lab Engineer

Job Code: 167163

Grade: TJ
OT Eligible: Yes
Comp Approval: 1/1/2007

JOB SUMMARY:
Supports project leader and other researchers in the design and implementation of research projects for prototype VLSI chips and board-level electronic systems.

JOB ACCOUNTABILITIES:

*E/M/NA  % TIME

____  ______ Creates layout for VLSI CMOS circuits using CAD software. Simulates VLSI designs using switch-level circuit simulation programs.

____  ______ Plans, designs, and implements wire-wrap and printed-circuit boards for system-level prototyping efforts. Debugs and characterizes performance of board-level designs.

____  ______ Operates and maintains sophisticated laboratory/scientific equipment. Designs, creates or adapts equipment and procedures to meet specific research needs. Advises on acquisition or enhancement of specialized equipment and laboratory setup.

____  ______ Contributes to the development and implementation of laboratory policies and procedures.

____  ______ Writes reports on experimental and developmental results.

____  ______ Reviews progress and effectively reports project status to project leader.

Performs other related duties as assigned or requested. The University reserves the right to add or change duties at any time.

*Select E (ESSENTIAL), M (MARGINAL) or NA (NON-APPLICABLE) to denote importance of each job function to position.

EMERGENCY RESPONSE/RECOVERY:

Essential:  □ No
□ Yes  In the event of an emergency, the employee holding this position is required to “report to duty” in accordance with the university’s Emergency Operations Plan and/or the employee’s department’s emergency response and/or recovery plans. Familiarity with those plans and regular training to implement those plans is required. During or immediately following an emergency, the employee will be notified to assist in the emergency response efforts, and mobilize other staff members if needed.

JOB QUALIFICATIONS:

Minimum Education:
Bachelor’s Degree
Combined experience/education as substitute for minimum education
Minimum Experience:

3 Years
Combined education/experience as substitute for minimum experience

Minimum Field of Expertise:

VLSI-related graduate coursework. Knowledge of VLSI design layout practices and CAD tools for all facets of circuit design and simulation. Experience with UNIX and/or PC operating systems and application software. Knowledge of electronic test equipment such as oscilloscopes, logic analyzers, and pulse generators.

Preferred Education:
Master's Degree

Preferred Experience:
7 Years

Skills: Other:
Analysis
Communication -- written and oral skills
Conceptualization and design
Knowledge of applicable laws/policies/principles/etc.
Organization
Planning
Problem identification and resolution
Project management

Skills: Laboratory:
Assistance in Publication Preparation
Basic Laboratory Safety Techniques
Equipment Maintenance
General Laboratory Techniques
Maintenance of Lab Notebook

Skills: Machine:
Computer Network (Department or School)
Computer Peripheral Equipment
Personal Computer

Supervises: Level:
May oversee student, temporary and/or casual workers.

SIGNATURES:

Employee: _____________________________________  Date:_____________________________
Supervisor: ____________________________________  Date:_____________________________

The above statements are intended to describe the general nature and level of work being performed. They are not intended to be construed as an exhaustive list of all responsibilities, duties and skills required of personnel so classified.
The University of Southern California is an Equal Opportunity Employer