UNIVERSITY OF SOUTHERN CALIFORNIA

VLSI Design Manager - MOSIS

Job Code: 167159

Grade: TM
OT Eligible: No
Comp Approval: 10/17/2013

JOB SUMMARY:
Directs the activities of a design group involved with the design and behavior determination of complex electronic circuits implemented in advanced Very Large Systems Integration (VLSI) processes through the MOSIS Service at ISI.

JOB ACCOUNTABILITIES:

<table>
<thead>
<tr>
<th>E/M/NA</th>
<th>% TIME</th>
<th>Description</th>
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<tbody>
<tr>
<td>______</td>
<td>______</td>
<td>Designs complex electronic systems using state-of-the-art methodologies and fabrication processes. Designs specifications of systems in abstract form and translates into optimum design approach.</td>
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<tr>
<td>______</td>
<td>______</td>
<td>Prepares proposals for new projects and estimates staffing, equipment and other costs. Writes publications for archival journals of circuit design methodologies and specific circuit design techniques.</td>
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<td>______</td>
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<td>Supports internal and external designers and researchers with advanced electronic circuit design technology. Researches and applies design methodologies to fabrication technologies for other operations and services under MOSIS.</td>
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<td>Formulates and documents procedures of library technology and files, commercially designed tools and design kits. Implements state-of-the-art methodologies and fabrication processes.</td>
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<td>Evaluates designs and establishes project goals and sets priorities. Establishes, assigns and approves project schedules.</td>
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<tr>
<td>______</td>
<td>______</td>
<td>Directly supervises all assigned subordinate staff. Recruits, screens, hires and trains staff. Evaluates employee performance and provides guidance and feedback to assigned staff. Counsels, disciplines and/or terminates employees as required.</td>
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<td>______</td>
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<td>Establishes and maintains appropriate network of professional contacts. Maintains currency with professional organizations and publications. Attends and participates in meetings, conferences and seminars as requested or required. Represents university and/or unit, as assigned or appropriate.</td>
</tr>
<tr>
<td>E____</td>
<td>______</td>
<td>Develops and implements security related procedures such as office opening and closing routines, recognition of duress signals and key controls. Coordinates security activities with university Public Safety Department. Promotes and maintains standards for security conscious awareness and behavior. Maintains knowledge of university's crime prevention and suppression programs and services. Ensures dissemination of security related information to staff. Performs other related duties as assigned or requested. The university reserves the right to add or change duties at any time.</td>
</tr>
</tbody>
</table>

*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:  
Master's degree
Minimum Experience:  
7 years
Minimum Field of Expertise:  
Leader of design groups for VLSI systems using CMOS and or GaAs integrated circuits
Preferred Education:  
Doctorate
Preferred Experience:  
10 years
Skills:  Other:  
Analysis  
Assessment/evaluation  
Coaching  
Communication -- written and oral skills  
Conceptualization and design  
Conflict resolution  
Counseling  
Human resource process and employment knowledge  
Interpretation of policies/analyses/trends/etc.  
Interviewing  
Knowledge of applicable laws/policies/principles/etc.  
Networking  
Organization  
Planning  
Problem identification and resolution  
Project management  
Public speaking/presentations  
Research  
Scheduling  
Staff development
Supervisory skills
Teaching/training

Skills: Machine/Equipment:
- Calculator
- Computer network (department or school)
- Computer network (university)
- Computer peripheral equipment
- Fax
- Personal computer
- Photocopier

Supervises: Level:
- Supervises employees and/or student workers.

Supervises: Nature of Work:
- Technical

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.

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