



VLSI Senior Engineering Technician

Job Description

JOB INFORMATION

Job Code:	167403
Job Title:	VLSI Senior Engineering Technician
FLSA Status:	Non-Exempt
Supervisory:	Leads one or more employees performing similar work.
Job Family:	Computer Research
Job Family Group:	Information Technology
Management Level:	7 Individual Contributor

JOB SUMMARY

Provides electronic test, engineering and design support for semiconductor wafer engineering laboratory. Troubleshoots particularly complex or troublesome test instruments, equipment and/or systems. Provides leadership, guidance and direction to technicians and operators.

JOB QUALIFICATIONS:

Education

Req	Pref	Degree	Field of Study
X		Associate's degree	
X		Specialized/technical training	
	X	Associate's degree	
	X	Specialized/technical training	

Additional Education

Check here if experience may substitute for some of the above education.

Combined experience/education as substitute for minimum education

Work Experience

Req	Pref	Work Experience	Experience Level
X		7 years	
	X	10 years	

Additional Work Experience

Check here if education may substitute for some of the above work experience.

Combined experience/education as substitute for minimum work experience

Knowledge, Skills and Abilities

Req	Pref	Functional Skills
X		Comprehensive knowledge of standard electronic test equipment and computer user interfaces.
X		Ability to read, interpret and explain electrical and electronic schematics and mechanical drawings.

Knowledge, Skills and Abilities

<i>Req</i>	<i>Pref</i>	<i>Functional Skills</i>
X		Understanding of industry practice in the areas of materials storage and handling, care and maintenance of test equipment, and process and job flow documentation.
X		Basic electronic and mechanical assembly skills including soldering and wire-wrapping.
X		Working knowledge of analog and digital circuits (amplifiers, switches, buffers, oscillators, gates, latches, flip-flops, optoisolators), including ability to create simple designs.
X		Basic programming skills in at least one language and operating system used in wafer lab environment.
X		Intermediate level skills in file manipulations and text file editing on at least one widely used computer operating system.
X		Working knowledge of CAD software, spreadsheets, and other electronic engineering software tools.
X		Knowledge of standard semiconductor test laboratory practices required.
	X	Practical experience with several laboratory applications of personal computer hardware and software and workstations.
	X	Proficiency in file manipulations, text file editing, and command line utilities of at least two widely used computer operating systems.
	X	Experience in semiconductor electronic test or related field.

Other Job Factors

- May require periodic weekend or evening work.

JOB ACCOUNTABILITIES

	<i>% Time</i>	<i>Essential</i>	<i>Marginal</i>	<i>N/A</i>
Assists test engineering staff in scheduling, coordinating and modifying wafer laboratory work flow.				
Coordinates operation and maintenance of wafer and packaged device test equipment including automatic, semi-automatic, and manual wafer probe stations, probe cards, electronic and mechanical interfaces from prober to test instruments, parametric and functional testers and auxiliary test instruments and equipment. Troubleshoots particularly complex or troublesome test instruments, equipment and systems. Makes necessary modifications or repairs. Provides backup operations support.				
Oversees maintenance of wafer laboratories in consultation with test engineering staff. Coordinates contact with field service personnel and electrical, air conditioning and other contractors when outside service is required.				
Produces and distributes standard and custom wafer laboratory test reports using command-line-driven report generators and electronic mail.				
Supports custom test systems activities including: creation (with engineering supervision) and maintenance of design documents (schematics, printed circuit board artwork and mechanical and assembly drawings); purchase of electronic and mechanical parts; and coordination of assembly, test, debugging and maintenance of prototype systems and existing custom installations.				
Provides leadership and guidance to technicians and operators. Coordinates workload and sets priorities and timelines as required. Trains and directs technicians and operators in the use of laboratory test equipment.				
Stays informed of new developments and technologies by reading journals and other pertinent publications, maintaining contact with vendors, and participating in professional organizations, meetings and seminars.				

Other Requirements

<i>Essential:</i>	<i>Emergency Response/Recovery</i>	<i>Essential:</i>	<i>Mandated Reporter</i>
	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		A mandated reporter who in his or her professional capacity has knowledge of, or reasonably suspects a person who is under the age of 18 years, elderly, or a dependent adult has been the victim of abuse or neglect must report the suspected incident. The reporter must contact a designated agency immediately or as soon as practically possible by

Other Requirements

<i>Essential:</i>	<i>Emergency Response/Recovery</i>	<i>Essential:</i>	<i>Mandated Reporter</i>
	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.		telephone or in writing within 36 hours. By virtue of the associated job duties, this position qualifies as a mandated reporter as required by state law and USC's policy at: https://policy.usc.edu/mandated-reporters/
<i>Campus Security Authority (CSA)</i>			<i>Essential:</i>
By virtue of the associated job duties, this position qualifies as a Campus Security Authority as required by law and USC's policy at: https://dps.usc.edu/alerts/clery/			No

ACKNOWLEDGMENTS

The above statements reflect the essential and non-essential functions as necessary to describe the principle contents of the job. They are not intended to be a complete statement of all work requirements or duties that may be required of the position. I understand that I may be asked to perform other duties as assigned. USC reserves the right to add or change duties at any time.

The University of Southern California is an Equal Opportunity Employer. USC prohibits discrimination on any basis protected under federal, state, or local law, regulation, or ordinance or university policies. All employment decisions are based on individual qualifications and business need.

I acknowledge receipt of this job description and its associated physical requirements. I have read and understand the job description and job requirements and agree to abide by their contents. I realize that duties may be requested of me that are not specifically stated herein. I understand that I will be expected to adjust to potential fluctuations in work volume. I understand that, if I have any questions about the essential functions or expectations of my position, my supervisor and/or HR partner are available to discuss them with me.

Print Employee Name

Signature

Date

Print Manager Name

Signature

Date

This job description describes the general nature and level of work required by the position. It is not intended to be an all-inclusive list of qualifications, skills, duties, responsibilities or working conditions of the job. The job description is subject to change with or without notice, and Management reserves the right to add, modify or remove any qualification or duty. Nothing in this job description changes the existing at-will employment relationship between the university and the employee occupying the position.