

Center for Career Planning & Placement (CCPP)
Graduate Placement Services (GPS)

JOB VACANCY FORM[®]

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Job Reference No.: JV365

Company Name: *New York University Abu Dhabi*

Company Type: Private



Job Position/Title:	Emirati Research Assistantships - VLSI Design-for-trust Researcher	Academic Major:	Electrical Engineering or Computer Science
Salary Range:	Competitive Salary	Years of Experience:	Fresh Graduate
Job Location:	Abu Dhabi	Job Type:	Fixed term (One academic year starting from September and ending on June).
Nationality:	UAE Nationals	Gender:	Both
Job Description:	OVERVIEW New York University Abu Dhabi (NYUAD) is establishing world-class research throughout its full range of academic disciplines, through faculty research and the NYUAD Institute research centers. The Emirati Research Assistantship (ERA) Program has been introduced to provide outstanding Emirati graduates the opportunity to gain experience in a cutting edge academic research environment. An ERA position will enhance research and scholarship skills that will strengthen applications to graduate programs and/or applications for a career in research. ERAs are 9 – 12 month positions in a single research lab or scholarly project and are not renewable. In general, positions follow the academic year, beginning in September and finishing in June the following year. RESEARCH PROJECT DESCRIPTION Support for multiple capabilities and mixed technologies have increased the cost of ownership of advanced electronics chip manufacturing foundries. For instance, the cost of owning a chip foundry will be \$5 billion in 2015. As a result, many of the chip design companies cannot afford owning and acquiring expensive foundries and hence, outsource their design fabrication to offshore foundries. This globalization of Integrated Circuit (IC) design flow has introduced security vulnerabilities. If a design is fabricated in a foundry that is outside the direct control of the (fabless) design house, reverse engineering, malicious circuit modification, and Intellectual Property (IP) piracy are possible. An attacker, anywhere in this design flow, can reverse engineer the functionality of design, and steal and claim ownership of the IP. An untrusted IC foundry may overbuild ICs and sell the excess parts in the gray market. Rogue elements in the foundry		

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	may insert malicious circuits (hardware Trojans) into the design without the designer's knowledge. Because of these and similar hardware-based attacks, the semiconductor industry loses \$4 billion annually. This project aims at understanding the aforementioned hardware security and trust issues, surveying the existing solutions, and proposing and implementing new ones. RESPONSIBILITIES OF THE POSITION - Literature survey for chip design flow and latest hardware security and trust solutions - Devising and implementing new design-for-trust techniques - Simulations and experimentation to perform security/cost assessment.
Minimum Qualifications:	ESSENTIAL QUALIFICATIONS: - At least a BS degree in Electrical and Computer Engineering with a good background in data structures and algorithms, logic design and programming. PREFERRED EXPERIENCE / SKILLS: - Coding experience in major software projects (C/C++ programming language) - Familiarity with the IC design flow and use of electronic design automation (EDA) tools - Background in VLSI design and CAD APPLICANTS TO PROVIDE: - Statement of interest in the position - Transcript of degree(s) - CV - Two letters of recommendation
No. of Positions Required:	1
Job Close Date:	June 20, 2013

To Apply, UAEU Graduates/Alumni should send their CVs to:

nyuad.research.era@nyu.edu.

And

JN@uaeu.ac.ae

Please mention "**Job Reference No.: JV365**" in your email title in case we lost your information during filing.
Only doc/PDF/Zip files are acceptable.

