

## Helen G. Saad



Rather than engineering computers, Helen seeks engineering better health!

Helen G. Saad, holder of a Bachelor's degree in Computer Engineering from the Lebanese American University (LAU Class of 2002), has been to focus on Neural Engineering during her PhD studies at the University of California, San Diego (UCSD) which began during fall 2007. A subfield of of Bioengineering, Neural Engineering investigates the behavior of the central and peripheral nervous systems and how it can be manipulated. Helen's particular area

of interest lies in restoring locomotion in individuals suffering from paralysis caused by injury to their spinal cord.

Helen's decision to dedicate her studies to this field was influenced greatly by watching her grandmother's paralysis. "This was a turning point in my life", says Helen. "If there was a way to trigger that bundle of nerves responsible for making legs work, my grandmother would be able to walk again. More precisely, the nerves responsible for my grandmother's walking were intact, but the problem was the signal from her brain to these nerves was lost en route due to an injury in her spinal cord".

To this end, Helen decided to apply her engineering skills to help medicine find a cure for paralyzed people. Over the long run, Helen will be delving into research within the Neural Engineering realm in order to extend her interest in restoring locomotion to other forms of impairments, namely visual and auditory impairments, as they also result from the destruction of neural pathways that connect the brain with the external world.

At the invitation of the U.S. Department of State, Helen began her tenure as a Fulbright recipient in January 2007 at the International Conference on Women Leaders in Science, Technology and Engineering. The three-day conference, held in Kuwait, was the first of its kind to take place in that region of the world, as it brought together more than 270 women scientists and engineers from the Middle East and North Africa region (MENA) and US leaders from industry, academia, research institutions, and government with the goal of "creating stronger networks with U.S. counterparts and each other", according to a State Department press release.

The most memorable moment for Helen, who worked for five years in the Information Technology sector in Lebanon before returning to her academic pursuits, was when Paula Dobriansky, U.S. Under secretary of State for Democracy and Global Affairs, asked her to stand and congratulated her as one of the 12 award recipients who just happen to be women (Here is the hyperlink to Paula Dobriansky's speech: <http://www.state.gov/g/rls/rm/79022.htm>).

As a recipient of the International Fulbright Science and Technology Award, Helen has sought to engage with other colleagues who share the same insatiable passion for knowledge and determination to achieve goals in a uniquely competitive and gratifying research career. Her career thus starts in the United States of America and lands, almost after five years of intensive and advanced studies, in her homeland, Lebanon.