



Carolina SOTO

Home Country
Colombia

Degree
PhD in Electrical
Engineering

Expertise
Electrical Engineering
and Signal Processing

Research Focus
Hyper-Spectral Images

Host University
University of
California Irvine,
United States

Fellowship Awarded
2005

Carolina Soto was born and raised in Bogota, Colombia. As the oldest in her family she wanted to set a good example for her three brothers and her sister, and that motivated her to become successful.

After graduating from electrical engineering she began working full time as a teacher at Javeriana University in Bogota. After obtaining a master's degree, she moved to California in 2005 to begin PhD studies in electrical engineering working with leading researchers on images with multiple spectral bands. Carolina and her husband are both studying at University of California, Irvine (UCI) in the United States.

Working in the Computer Vision Laboratory at UCI, Carolina is helping develop new algorithms and applications related to hyper-spectral images. Specifically, she has been working on the use of hyper-spectral images to analyze the human skin. These hyper-spectral algorithms have been successfully used for decades in military applications, but the use of this technology in biomedical applications is still in its infancy. These algorithms and applications will eventually help detect cancer and other abnormalities of the skin using non-invasive methods such as the detection of changes in temperature or abnormalities of the vascular tissue.

Carolina hopes her work will contribute to the development of new techniques used in the diagnosis, treatment or prevention of disease.

Carolina actively encourages women to pursue technical careers and plans to go back to the Javeriana University in Bogota, Colombia to work as a teacher.