Camila Ribeiro CARDOSO

Home Country
Brazil

Degree
PhD in Mechanical Engineering

Expertise
Mechanical Engineering

Research Focus
Heat Transfer Reformers for Micro Fuel Cells Using Carbon Nanotubes

Host University
Rice University, United States

Fellowship Awarded
2005

Camila Ribeiro Cardoso was born in Rio de Janeiro, Brazil. Her parents were her biggest supporters and greatly influenced her and her younger sister, both of whom chose careers in science. She is married and has one child, a boy. Among her hobbies she lists painting, running and tango dancing along with languages – she speaks Portuguese, English, Spanish, French and some German.

After graduating in 2005 with a Bachelor of Science degree in mechanical engineering from Federal University of Rio de Janeiro, Camila went on to pursue a doctorate in mechanical engineering in the United States at Rice University in Houston, Texas. At Rice her thesis topic is on heat transfer enhancement in rectangular microchannels with embedded carbon nanotubes at the bottom. Camila is focusing her research on the study of heat transfer enhancement in reformers for micro fuel cells using carbon nanotubes.

The heat transfer literature of the last decade has demonstrated a vivid and growing interest in thermal analysis of heat transfer enhancement, both through experimental and analytical approaches. All such analysis is restricted to certain situations, since the characterization and understanding of the physical properties of these nanostructured devices and materials is still a challenge. Nevertheless, the energy transport phenomenon in applications with carbon nanotubes is extremely promising. In her research Camila is helping propose solutions for heat transfer and gas flow in rectangular microchannels.

Along with her research activities, Camila has been working as a teaching assistant and grader and says that she is delighted with the opportunity to teach and share insights with her students.

When she finishes her degree at Rice, Camila plans to return to Brazil to teach at the university level.