



Applied Research Center Distinguished Lecture Series Presents

Anthony Abrahao, M.S.

“Development of Robotic Inspection Tools for the AY-102 Double-Shell Tank”

**October 2, 2015 | 3:00 PM | Engineering Campus - EC 2300
Conference Room**

In August of 2012, traces of waste were found in the annulus of the AY-102 double-shell tank storing radioactive waste at the Hanford Site, prompting the need for developing inspection tools that can identify the cause and location of the leak. To help in this effort, Florida International University (FIU) is investigating the development of robotic inspection tools able to access the tank's secondary containment. The effort led to the development of a new peristaltic pipe crawler. The developed worm-type robot, as well as its design challenges, is going to be presented.

Mr. Anthony Abrahao is currently a Research Scientist at the Applied Research Center (ARC) at FIU, where he works on research projects supporting the Department of Energy's Office of Environmental Management (DOE-EM). The projects are important to EM's mission of accelerated risk reduction and cleanup of the environmental legacy of the nation's nuclear weapons program. He also works on research projects supporting the study of the mechanical integrity of adhesive joints applied to composite structures funded by the Federal Aviation Administration (FAA).

Mr. Abrahao has been engaged in the development of many interesting mechanical systems, working on almost all aspects of their design, from conception to installation. He holds a Master of Science (MS) degree and a Bachelor of Science (BS) degree in mechanical engineering from Federal University of Uberlandia (UFU), one of the most prestigious mechanical engineering programs in Brazil. He is currently pursuing his Ph.D. in mechanical engineering at FIU in the area of engineering system design, studying numeric algorithms to aid the design of biomechanical, mechatronics and energy systems. In the past, he worked for over eight years as an active mechanical engineer in a private business in Miami, Florida. He also has over fifteen years of consulting and research experience, and has collaborated with some of Brazil's most respected universities and laboratories.

Applied Research Center (ARC)
FIU Engineering Campus | EC 2100
Phone: (305) 348-4238
arc.fiu.edu

Refreshments will be provided