Title:

Continuum Robot Modules and their Control

Abstract

The talk discusses issues in the control of continuum robots. Beginning with an introduction to core continuum robot modules, or sections, examples of alternative types of controllers proposed for them are presented and discussed. Questions regarding which type and complexity of controllers are most appropriate for compliant continuum robotic structures are introduced and addressed.

Speaker Bio:

Ian D. Walker received the B.Sc. Degree (First Class Honours) in Mathematics from the University of Hull, England, in 1983 and the M.S. and Ph.D. Degrees in Electrical and Computer Engineering from the University of Texas at Austin in 1985 and 1989, respectively. He is currently on the faculty in the Department of Electrical and Computer Engineering at Clemson University, where he is a full Professor. Professor Walker's research centers on robotics, particularly novel continuous backbone “continuum” and soft robots. His group is conducting basic research in the design, modeling, and application of biologically inspired “tongue, trunk, and tentacle” robots.

978-1-7281-6211-9/20/$31.00 ©2020 IEEE