Good morning,

You are invited to attend our weekly ECE Graduate Seminar.

Old Dominion University
College of Engineering and Technology
Department of Electrical and Computer Engineering

All lectures to be held at 3:00pm on Fridays online at

https://vs.prod.odu.edu/kvs/interface\_webex/?cid=202010\_ECE7831VS\_91606.



## Friday, October 9th Seminar Topic

## HUMAN- ROBOT COLLABORATION FOR ADVANCED MANUFACTURING AND SURGICAL TASKS

by Dr. Krishnanand Kaipa, Assistant Professor and **Dector** of the Collaborative Robotics and Adaptive Machines (CRAM) Laboratory in the Department of Mechanical and Aerospace Engineering at the Old Dominion University

## Abstract:

Humans and robots share complementary strengths in performing tasks. The versatility of humans allows them to adapt and handle non-repetitive tasks where operational parameters vary from one task instance to the next. Human manipulation skills are characterized by dexterity, compliance, and an ability to perform in tight spaces. Humans can also handle task contingencies and recover from errors. In contrast, robots excel at performing tasks requiring high speed, precision, and repeatability. They can also handle high payloads and operate for long durations without fatigue