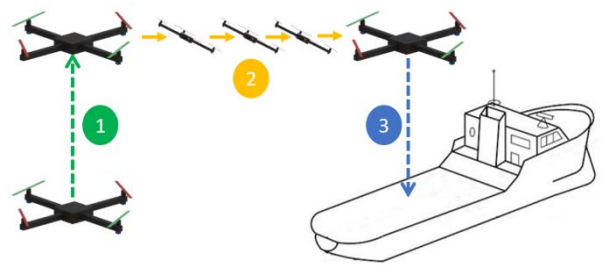


FUNDED GRADUATE POSITIONS AT CARLETON UNIVERSITY

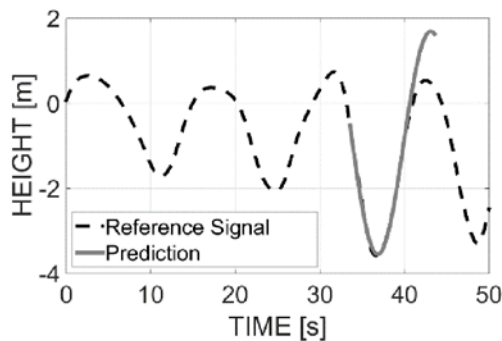
The Multi-Domain Laboratory ([MDL](#)) headed by [Dr. Irani](#), is focusing on increasing the safety of maritime vessels by advancing and automating deck-machinery. The goal of the program is to reliably launch, recover or transfer any load or object from the sea surface or another vessel to the host ship irrespective of weather conditions or the relative motions. The laboratory concentrates on control, dynamics and mechatronics for the enabling technologies.

PROJECT 1 – UAV LANDING (MASC OR PHD)

Can you automate a landing of an Uninhabited Aerial Vehicles (UAV) on a moving vessel? Within simulations we have developed a new methodology for landing UAVs on a moving vessel. The next phase of the work is to perform physical experiments and improve the system.



PROJECT 2 – GAIN SCHEDULING (MASC OR PHD)



Think you can advance and improve our signal prediction methodology to alter a system's response and avoid potential equipment failures?

We are looking to improve the accuracy of our existing real-time signal prediction algorithm for longer time horizons.

PROJECT 3 – MOTION COMPENSATION AND MIND CONTROL (PHD)

Can you develop motion compensation system which uses the measurable brain activity or muscle response to control a winch or a crane for motion compensation?

For all projects, you will develop model and then perform a series of validation experiments, giving you hands-on experience and state-of-the-art modelling skills.

If these projects or general topics are of interest to you please e-mail me at Rishad.Irani@Carleton.ca or learn more about the at <https://carleton.ca/mdl>