

AN INSIGHT INTO



HANDS ON CONTROLS

Autonomous Systems

500 hours of research based learning



The problem

Job crisis + inexperience

Due to COVID-19 a lot of layoffs have taken place and most internships have been rescinded, leaving fresh job entrants with no option but to take recorded online courses.

Those working in product design and FEA domains are willing to switch to controls software but do not know where to start or how to make this switch happen.

The Solution

HANDS-ON CONTROLS

HOC is a live research based program instead of typical classroom teaching. It provides you with a first hand experience of how a controls software engineering job is done in a company.

It's a mix of internship and a learning platform where you get to work with a live team and a mentor on a project that counts.



HOC IS FOR



STUDENTS

Best suited for this program as you get an invaluable experience before you graduate ME or EE in the coming months/year.



GRADUATES

ME or EE graduates with fundamental knowledge of dynamics, controls and MATLAB/SIMULINK



PROFESSIONALS

If you currently don't work in controls software but are willing to make a switch & can spend 500 hours within 3-6 months timeframe



ALL YOU NEED IS...

HOME OFFICE

This will be a remotely held program and we encourage you to work safely from your home office.

COMPUTER


We expect you to use your own computer as you would own the projects that you work on.

INTERNET

The live sessions will be held on Zoom and will need a good internet connection.

SIMULINK

This is bread and butter for a controls software engineer, Simulink and MS office should be on your computer all the time.



COURSE OUTLINE

Autonomous Systems

BASICS OF ADAS
(LEVEL 1 & 2)

ADAS SYSTEM
MODELLING
(LEVEL 3)

MIL TESTING & AUTOCODE
GENERATION
(LEVEL 4)



COURSE PREVIEW

LEVEL -1

15 days - 9 Lectures

COMPLETION FLAG-

BASIC UNDERSTANDING OF ADAS/AV

Topics:

- 1) ADT, Stateflow, Matlab, Simulink & Autonomous Driving
- 2) Self-driving car fundamentals
- 3) C++/Linux from resources online

LEVEL - 2

15 days - 3 lectures

COMPLETION FLAG-

ADAS ARCHITECTURE PLAN COMPLETE

Topics:

- 1) Compatibility with DSB app
- 2) Introduction to guided project 1
- 3) Scope up project methodology / Research Paper collection
- 4) High level architecture for ADAS

COURSE PREVIEW

LEVEL -3

30 Days - 13 meetings

Topics:

- 1) State Estimation & Localization (KF, EKF, UKF, Particle filter, Localization, Sensor Fusion)
- 2) Path Planning (Prediction, Global Planning, Behavior Planning, Local Planning)
- 3) Path Tracking (Longitudinal controls and Lateral Controls)

COMPLETION FLAG-

COMPLETE UNDERSTANDING
OF ADAS/AV

LEVEL - 4

30 Days - 7 meetings

Topics:

- 1) Introduction to guided project 2
- 2) Project Development
- 3) Integration of all units
- 4) MIL Function testing

COMPLETION FLAG-

MBD VALIDATION
COMPLETE, READY FOR
AUTO CODE GENERATION

GET IN TOUCH

Limited seats only.

ENROLLMENT CONTACT

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