

LEARN & INTERN

LEARN TO MODEL, CONTROL AND ANALYZE VEHICLE SYSTEMS
INTERN WITH US TO IMPLEMENT YOUR LEARNINGS

SMART MOBILITY SYSTEMS





WORK ON THE LATEST DOMAINS

BASED ON YOUR INTEREST YOU WILL BE WORKING ON ONE OF THE FIELDS MENTIONED BELOW

EMOBILITY CONTROLS

Work on systems such as:

- Powertrain Controls
- Transmission Controls
- Battery Management Systems
- Motor Controllers

AUTONOMOUS SYSTEMS

Learn and get hands-on experience on

- Perception
- Localization and Sensor Fusion
- Motion planning and Control
- Simulation: Development and Testing
- Implementation on hardware

LEARNING SCHEDULE

EMOBILITY CONTROLS

In the initial three months (learn phase), you will work with a mentor to develop subsystem, system and vehicle-level models that perform in close conformity with the requirements assigned to you. You will get guidance and nudges from the mentor when required. You will be responsible to follow this schedule:

01 MATLAB PRACTICE
Week 1

02 CLASSICAL CONTROL THEORY
Week 2

03 ROAD DYNAMICS
Week 3

04 POWERTRAIN COMPONENTS
Week 4

05 ADVANCED CONTROLS
Week 5

06 COMPLETE VEHICLE MODELLING
Week 6

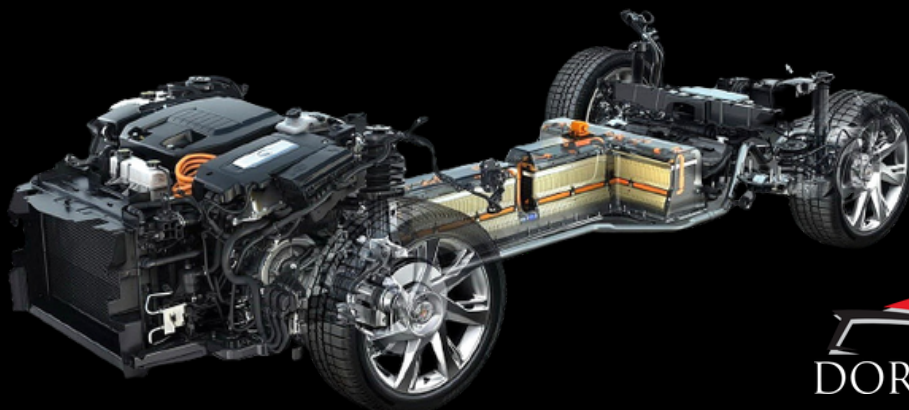
07 PMSM MOTOR & CONTROLLER
MODELLING
Week 7

08 LI-ION CELL & BATTERY PACK
MODELLING
Week 8

09 BMS ALGORITHM INTRODUCTION
Week 9&10

10 MIL/SIL TESTING
Week 11&12

11 PROJECT (INTERN PHASE)
Months 4 & 5



LEARNING SCHEDULE

AUTONOMOUS VEHICLES

In the initial three months (learn phase), you will work with a mentor to develop subsystem, system and vehicle-level models that perform in close conformity with the requirements assigned to you. You will get guidance and nudges from the mentor when required. You will be responsible to follow this schedule:

01 BASICS & TOOLS REQUIRED,
LECTURES
Week 1-2

04 INTRODUCTION TO ROS AND
CARLA
Week 9-10

02 ALGORITHMS FOR
PERCEPTION, LOCALIZATION,
SENSOR FUSION, MOTION
PLANNING AND CONTROLS
Week 3-6

05 BUILD THE ACTUAL HARDWARE
Week 11-12

03 DESIGN, DEVELOPMENT &
TESTING OF FCW AND AEB
FEATURES
Week 7-8

06 PROJECT (INTERN PHASE)
Months 4 & 5



INTERNSHIP

After successfully implementing the vehicle model and control systems in the learning phase you will work with us as a paid intern for three months where you will work with your mentor to assist him/her with their engineering work which includes:

- Modelling and validating various sub/system
- Embedded code generation and deployment
- Literature Review
- Preparing presentations for internal & external customers
- Suggest improvements in the existing process and products
- Preparation of technical documentation





PRE-REQUISITES

- UNDERSTANDING OF VEHICLE SYSTEMS
- KNOWLEDGE OF DYNAMICS AND CONTROLS
- ABILITY TO USE BASIC MATLAB AND SIMULINK
- ANALYTICAL ABILITY
- ABILITY TO WORK IN A TASK-BASED ENVIRONMENT
- ABILITY TO WORK WITHOUT LECTURE NOTES
- FAMILIARITY WITH PYTHON, COMPUTER VISION(RECOMMENDED)
- FAMILIARITY WITH LINUX

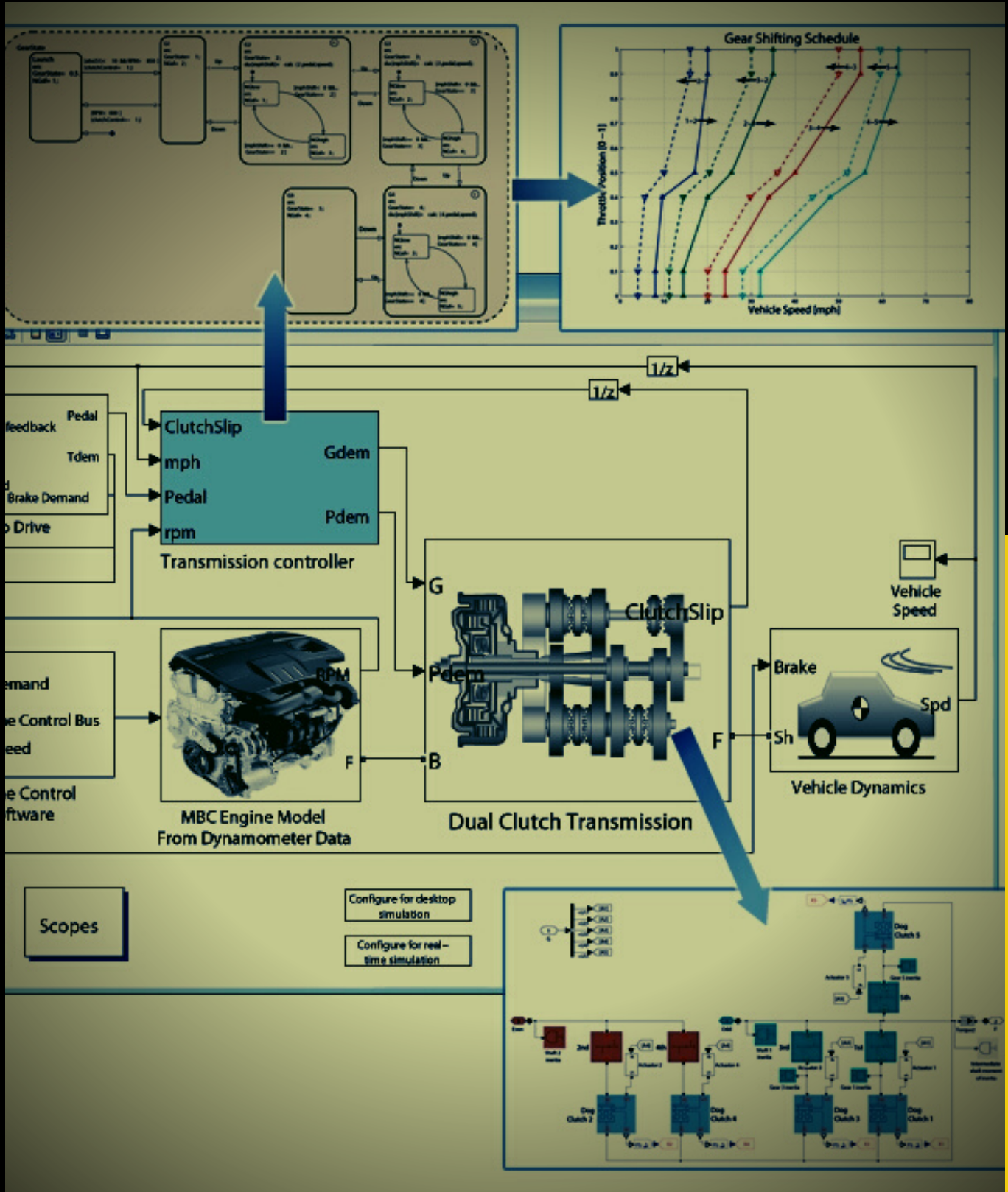
DURATION, FEES & STIPEND

- DURATION - 5MONTHS
- FEES FOR LEARN PHASE - \$3900
- EARN \$1000/MONTH IN INTERN PHASE

WHAT'S IN IT FOR YOU?

- REAL-WORLD EXPERIENCE
- GET YOUR FOOT IN AN INDUSTRIAL SETTING
- WORK ON OUR REAL-WORLD PROJECT
- WORK UNDER A MENTOR
- ACCESS TO OUR NETWORK OF ENGINEERS AND LIBRARY OF RESOURCES

NUMBER OF OPENINGS: 10



CONTACT
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