|  |  |
| --- | --- |
| **HCMC UNIVERSITY OF TECHNOLOGY** | SOCIAL REPUBLIC OF VIETNAM |
| Faculty of Transportation Engineering | Independence - Freedom - Happiness  **------------------------------------** |

# THESIS ASSIGNMENT

**Student’s full name :** Trịnh Tiến Long **Student’s ID : 1852047**

**Training program :** Automotive Engineering **Class : CC19OTO1**

1. **Thesis title :** Analysis, 3D modeling and dynamic simulation of the vehicle steering system in the VIOS car.
2. **Requested content :**

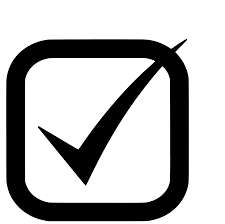
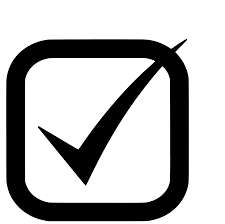
\_Build EPS model on Solidworks then import to Simscape to determine the torque acting on steering wheel with certain steering angle on EPS system

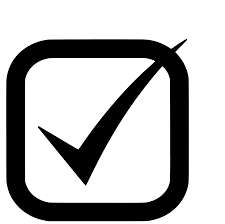
\_Build 3D model of the steering system

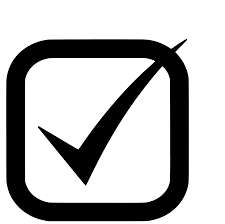
\_Simulation of dynamic behavior in Matlab/Simulink with Simscape

\_Validation the model for the control of an equivalent electric powered steering system

1. **Requested products :**

Full report Poster ◻ Scientific paper

◻ Software ◻ Firmware  Simulation model

◻ General layout drawings ◻ Detailed drawings  Assembly drawings

◻ Others:

1. **Date of assignment** *(dd/mm/yyyy)* **: 23/12/2022**
2. **Date of accomplishment** *(dd/mm/yyyy)* **: 22/05/2023**

**The Thesis assignment is approved by the Department of Automotive Engineering.**

|  |  |
| --- | --- |
| *Date (dd/mm/yyyy) :* ……22/05/2023…..  **Head of Department** | *Date (dd/mm/yyyy) :* ……15/05/2023……..  **Thesis Advisor** |