# MOTIVATION FORM FOR ROBOTICS ENGINEERING

**General Instructions (please read carefully)**

To show your motivation for the M.Sc. in Robotics Engineering, please fill out this motivation form.

There are 2 parts that you must fill out. Failing to use this mandatory form properly will lead in obtaining a low grade on the motivation criterion.

Use font size 11 or 12.

# PART I – You and your motivations

Instructions:

This part helps us understand who you are as a person and maybe as a future JEMARO student. You do not need to address anyone with an introductory phrase such as “To whom it may concern” or “Dear…”

Simply answer each question one by one like in a regular form. There is no need to use connecting words between the answers to each question. The size of these boxes should not be changed.











**PART II – Your background**

## Instructions:

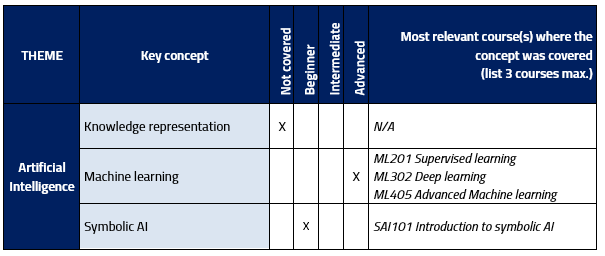
This part comes as an additional tool to your transcripts. It is meant to help us understand your academic background and how it relates to Robotics Engineering.

Fill out the tables 1 & 2 following the indications given.

## Table 1 – Recall of your studies

| **Undergraduate degree title (if you also obtained a master, mention it too)** | Bachelors of Technology |
| --- | --- |
| **Mention minor/major or specialization if any** | Electronics and Communication |

**Table 2 – Links between your curriculum and Robotics Engineering**

Example on how to fill out the table (the matrix to fill out is on the next 2 pages, in red):



| **THEME** | **Key concept** | **Not covered** | **Beginner** | **Intermediate** | **Advanced** | **Most relevant course(s) where the concept was covered**  **(list 3 courses max.)** |
| --- | --- | --- | --- | --- | --- | --- |
| **Artificial Intelligence** | **Knowledge representation** | X | ☐ | ☐ | ☐ | N/A |
| **Machine learning** | ☐ | ☐ | X | ☐ | ECE-84917BE Artificial Intelligence and Machine Learning |
| **Symbolic AI** | X | ☐ | ☐ | ☐ | N/A |
| **Computer Engineering** | **Digital and embedded systems** | ☐ | ☐ | ☐ | X | ECE4517B Digital Electronics and Logic Design  ECE6217B Microcontrollers and Embedded Systems. |
| **Object-oriented programming** | ☐ | ☐ | X | ☐ | ECE-84917BE Artificial Intelligence and Machine Learning  Internship in Embedded system and Prototyping  Crash course on Python |
| **Operating systems** | ☐ | ☐ | ☐ | X | Introduction to Linux  ECE-6317B Computer Organization and Architecture |
| **Control Engineering** | **Controllers** | ☐ | ☐ | ☐ | X | ECE-5517B CONTROL SYSTEM |
| **Laplace transform** | ☐ | ☐ | ☐ | X | MTH-3117B Engineering Mathematics -III  ECE-3217B Network Analysis and Synthesis  ECE-3417B Signals And Systems. |
| **Linear systems** | ☐ | ☐ | ☐ | X | MTH-2117b Engineering Mathematics II  ECE-5517B CONTROL SYSTEM |
| **Non-linear systems** | X | ☐ | ☐ | ☐ | N/A |
| **Stability** | ☐ | ☐ | ☐ | ☐ | ECE-5517B CONTROL SYSTEM  ECE-5117B digital signal processing |
| **Mechanics** | **Mechanical design methods** | ☐ | X | ☐ | ☐ | ECE-2517B Fumdamentals of Mechanics  ECE-3517B Material Science |
| **Theory of mechanism and machines**  **(kinematic and dynamic modelling)** | ☐ | ☐ | X | ☐ | ECE-2517B Fumdamentals of Mechanics |

| **THEME**  **Mathematics** | **Key concept** | **Not covered** | **Beginner** | **Intermediate** | **Advanced** | **Most relevant course(s) where the concept was covered**  **(list 3 courses max.)** |
| --- | --- | --- | --- | --- | --- | --- |
| **2D/3D geometry** | ☐ | ☐ | ☐ | X | MEE-1617B Engineering Drawing  ECE3617BL EDA Tools Lab |
| **Differential calculus** | ☐ | ☐ | ☐ | X | MTH-1117B Engineering Mathematics -1 |
| **Linear and matrix algebra** | ☐ | ☐ | ☐ | X | MTH-1117B Engineering Mathematics -1  MTH-2117b Engineering Mathematics II |
| **Logics** | ☐ | ☐ | X | ☐ | ECE4517B Digital Electronics and Logic Design |
| **Numerical methods** | ☐ | ☐ | ☐ | X | MTH4117B Engineering mathematics 4 |
| **Programming** | **C/C++** | ☐ | ☐ | ☐ | X | CSE-1417B Fudamentals of Computer Programming |
| **MATLAB** | ☐ | ☐ | ☐ | X | ECE3617BL EDA Tools Lab |
| **Python** | ☐ | ☐ | ☐ | X | ECE-84917BE Artificial Intelligence and Machine Learning Crash Course on Python. |
| **Robotics** | **Industrial robotics** | ☐ | ☐ | X | ☐ | Internship in Embedded system and Prototyping |
| **Manipulators modelling** | X | ☐ | ☐ | ☐ | N/A |
| **Mobile robots** | ☐ | ☐ | X | ☐ | Internship in Embedded system and Prototyping |
| **Robotic control** | ☐ | ☐ | ☐ | X | Internship in Embedded system and Prototyping |
| **Robotic software programming** | ☐ | ☐ | X | ☐ | Internship in Embedded system and Prototyping  CSE-1417B Fudamentals of Computer Programming  ECE3617BL EDA Tools Lab |