

V-REP

Title of the training course	V-REP
Certification	Certificate of participation
Hourly volume	10 hours
Materials Required	PC
Abstract	<p>V-REP (virtuel robot experimentation platform)</p> <ul style="list-style-type: none">•A robotic simulator: a software environment aimed at generic robotic applications (not only motion planning)•Relatively new (2014), produced by CoppeliaRobotics•Free and open source•Available on Windows, Linux and Mac•Example of applications :<ul style="list-style-type: none">•Fast prototyping and verificatio•Fast algorithm development•Hardware control•Etc•Provides physical engines for dynamic simulations•Allows the simulation of sensors•Its functionalities can be easily extended using many programming languages(C/C++, Python, Java, Lua, MATLAB, Octave, Urbi) and programming approaches(remote clients, plugins, ROS nodes,...)•Provides a large and continuously growing library of robot models

TRAINING PROGRAM

1- Introduction V-REP

- V-REP Overview
- Scene Objects
- Calculation Modules
- Control Mechanisms

2-Applications

- BubbleRob
- LineFollowingBubbleRob
- Hexapod
- InverseKinematics

3-Interfacing Matlab and V-REP

TRAINER BIOGRAPHIE



Habiba Batti was born in Bizerte, Tunisia. She obtained her electrical engineering degree in 2014 and followed by the thesis degree from the National Engineering School of Tunis ENIT, University of Tunis El Manar, in Intelligent Controls for Mobile and Flying Robots. She is currently a member of the research laboratory : Intelligent Robotics, Reliability and Signal Processing (RIFTSI). Her research interests include mobile robots, Intelligent controls using neural networks and fuzzy logic, autonomous navigation, motion control and deep learning.