

PROJECT LOG BOOK

(UG PROGRAMME)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

PROJECT TITLE: **ArUco-Nav : Localization and Visual Navigation of a Scalable Robot Swarm using ArUco Markers**

PROJECT GROUP NO.: 23

PAPER CODE: CS892

STUDENT DETAILS:

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Date	15/02/2020
Work Achieved	Discussion on the hardware modules to be used for building aruco marker based robot navigation
Problem Encountered	Webcam FPS and video quality not suitable
Work planned for next week	ArUco marker detection using a video feed and opencv module
Project plan status (on, behind, ahead)	
Supervisor's comment	

Date	01/03/2020
Work Achieved	Successful aruco marker detection using opencv and ip webcam
Problem Encountered	High latency of ip webcam
Work planned for next week	Finding x,y coordinates of aruco markers in local environment
Project plan status (on, behind, ahead)	
Supervisor's comment	

Date	15/03/2020
Work Achieved	Successful detection and localization of aruco markers using aruco-vision-server Android app
Problem Encountered	Determination of ArUco marker headings
Work planned for next week	Simulation of detected markers in pygame window for further analysis
Project plan status (on, behind, ahead)	
Supervisor's comment	

Date	04/04/2020
Work Achieved	Basic pygame setup and simulation of waypoints navigation based on user input
Problem Encountered	Translating the simulation to robot firmware
Work planned for next week	Configuring NodeMCU to communicate with the ArUco marker localization test using MQTT.
Project plan status (on, behind, ahead)	
Supervisor's comment	