Report No: (4) [W13 - 16]

Annex. E

FOUR WEEKLY EXPECTED OUTCOMES FOLLOW-UP REPORT

#	PO Ref	LO Ref		Structured Training Program Items	Activity Carried Out Under *(You may generate a list of activities carried out and the list number can be mentioned here. A single activity can be considered for more than one learning outcome achievement)*
		No.	Scale (H,L,M or N/A)		
1	P01	LO2	H	Develop a Graphical user Interface (GUI) for camera calibration.	* Designed the appearance of the application in such a way that it can be easily used by an inexperienced person. * Implemented the associated algorithms from scratch.
		LO3	L	Discussion on how to hide the technical complexity of an engineering solution.	* Designed an intuitive interface for the camera calibration application. * Added interactive guidelines / button enabling / disabling functionality to make it easy to use.
		LO4	L	Demonstrate the functionality of the developed software to the supervisor.	* Demonstrated the functionality of the camera calibrator application to the supervisor to receive the further instructions and a feedback for the improvement.
2	P02	LO1	L	Research literature to find out efficient / reliable ways for camera calibration.	* Carried out a literature survey to find out various methods to calibrate cameras in an industrial setting. * Compared the feasibility ~~study~~ of the found methods.
		LO4	L	Presentation of the various methods of camera calibration.	* Discussed feasibility of the found camera calibration techniques with the supervisor. * Decided a suitable method for the implementation.
3	P03	LO4	L	Develop a graphical user interface for camera calibration.	* Developed a windows software for camera calibration which generates required data to run the object detection framework successfully.
4	P05	LO2	H	Develop a graphical user interface for camera calibration.	* Used visual studio 2019 software to design the mentioned software. * Used "Git" version controller to track the development process of the software.
5	P06	LO3	H	Develop a graphical user interface for camera calib-ration.	* Designed and implemented a windows software for camera calibration in such a way that a beginner can adopt it easily as the technical complexity is hidden ~~we~~.
		LO4	M	Composition of the user manual for the developed software.	* composed a beginner friendly user manual for the software in such a way that the user does not need any literature specific knowledge to ~~maintain~~ / use it.
		LO5	H	Evaluation of various ~~graphical~~ camera calibration methods in terms of their financial feasibility.	* Investigated about low cost ~~and~~, ~~simple and~~ and reliable camera calibration methods to be integrated into the object detection framework ~~and~~ (the windows software)

6	P07	LO5	L	~~Evaluation~~ of ~~the~~ various camera calibration methods to find an ecoromically sustainable ~~solution~~.	* Evaluated various camera calibration methods used in literature to find out their ecoromical sustainability and validity of the method for longer run of production.
7	P08	LO3	M	Discussion on the importance of meeting deadlines and achieving goals within allocated time period.	* Discussed about the importance of achieving targets within allocated time period. * Discussed about the actions an employee can take to minimize the impact, if he is unable to do so.
		LO4	L	Demonstration of the performance of the developed camera calibrator application.	* Demonstrated the performance of the developed software to the supervisor for his feedback. * Made requested changes to the application to meet standards.
8	P09	LO4	H	~~Discussion on the~~ Discussion with supervisor to get to know about previously developed GUIs.	* Discussed and got to know about the requirements to be fulfilled by the application developed by me to be compatible with the robot's main software.
9	P10	LO1	L	~~Docume~~ Composition of the user manual of the developed application.	* Composed a beginner friendly user manual, describing how to use the software for effective camera calibration.
		LO4	M	Demonstration of the working of the developed camera calibration application.	* Demonstrated how to operate the developed software ~~for~~ to effectively calibrate a camera.
		LO5	H	Presentation of the results obtained by evaluating various camera calibration methods.	* Identified possible improvements that can be done to add more value to the software. * Presented the results obtained by evaluating various camera calibration methods to find the most sustainable solution. * Received feedback from the supervisor on the results.
10	P11	LO1	L	Feasibility study on various camera calibration methods used in computer vision literature.	* Carried out a feasibility study on various camera calibration methods to find out the ideal solution for my allocated task.
		LO4	M	composition of user manual for the software.	* Composed a beginner friendly user manual for the software so that anyone without much knowledge can easily adopt the software ~~for~~ in future.
		LO5	L	Evaluation of various camera calibration methods in terms of their financial feasibility.	* Camera calibration is just a single part of ~~the~~ my allocated task. Therefore ~~its~~ financial feasibility ~~must be considered at first place~~. of several calibration methods were considered, prior to deciding what to implement.

11	P12	LO1	M	Development of a user interface for camera calibration.	* Learnt various techniques to hide the technical complexity of an engineering solution from a non-tech-savvy people. * And the importance of doing so.
		LO3	M	Discussion on the importance of meeting deadlines and achieve targets withing the given time.	* Learnt about various actions an employee can take in order to minimize the effect of not able to meet deadlines.
		~~LO4~~ LO5	H	Evaluation of various camera calibration methods in terms of their technical / financial feasibility	* Learnt the importance of having an overall picture of the project ~~you are~~ involved in, so that one can decide what to focus more and best way to manage
		~~LO5~~ LO4	H	Demonstration of the working of developed windows software.	* Learnt various industry standards, we have allocated budge to follow when developing software solutions. eg: programming styles / design decisions related to user interface layout.

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