

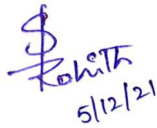

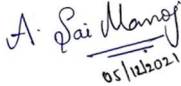
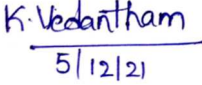



National Institute of Technology Calicut

Office of Dean (R & C)

Status Report : (OCTOBER (Month) – 2021 (Year))

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| Name of the Project Leader with Roll No. | POOLA ROHITH B180712ME |
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| Name(s) of the Group Members with Roll No(s). | AKONDI SAI MANOJ – B180161ME MAMIDI THEJONATH – B180129ME KURAGANTI VEDANTHAM – B180473ME |
| Ph. No. & email id of Group Members (other than institute email id) | 6303364524 – manojakondi25@gmail.com 9441214164 – tejonathg21@gmail.com 9381222285 – vedantham.kuraganti123@gmail.com |
| Name of the Guide(s) & Department(s) | Dr. SUDHEER A P – Mechanical Department Dr. K SEKAR – Mechanical Department |
| Title of the Project | Robot Based Automation for Vertical Farming |
| Summary of Work Done in the previous months (In bulleted points) | <ul style="list-style-type: none"> • Conceptual designs of Manipulator and Lift are completed • Created a virtual environment for simulation of Manipulator • Implemented a deep learning model for vegetable detection. • Optimized the manipulator model and mechanism for lift. • Created CAD designs of end effectors for gripper and harvesting. |
| Work Done in this month (in bulleted points) (Please specify what part of objective(s) or outcome you are currently working) | <ul style="list-style-type: none"> • Performed static force analysis on the developed cad model for grippers. • Performed simulation of the mobile base in the virtual environment. • Improved the object detection algorithm with new datasets. • Currently working on the optimization of end effector design for harvesting and collection of new datasets. |

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| <p>Whether the goals are achieved or not as per the plan (If No, specify the reason)</p> | <p>No</p> <p>Currently working on the new designs of end effector for harvesting. We started working on simulation, creating virtual environment and development of AI algorithms.</p> |
| <p>Signature of Project Members with Date</p> | <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  Rohith 5/12/21 </div> <div style="text-align: center;">  M. Thirumala 05/12/21 </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  A. Sai Manoj 05/12/21 </div> <div style="text-align: center;">  K. Vedantham 5/12/21 </div> </div> |
| <p>Signature of Guide(s) with Date</p> | <div style="text-align: center;">  </div> <p>Dr.Sudheer.A.P</p> |