



e-Training

on

“Aerial grasping application for agriculture- An overview by UAV”

May 23, 2020

(For UG, PG, Ph. D Students & Faculty)

The project entitled Centre of excellence for Digital Farming solutions for Enhancing Productivity by Robots, Drones and AGV's (**DFSRDA**), on Vaswantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra under World Bank Sponsored National Agricultural Higher Education Project (NAHEP) of Indian Council of Agricultural Research (ICAR), New Delhi, Government of India, since 2019.

Dear all,

We are glad to inform you **Vaswantrao Naik Krishi Vidyapeeth** is organizing an Online “**Aerial grasping application for agriculture-An overview by UAV**” on 23rd May 2020, **10 am to 11am**.

Resource Person: **Mr.V.S.RAJASHEKAR**, Project Assistant, IISc Bangalore

About the workshop:

Robotics is a subject of interest to all since it produces enjoyable results. But one has to learn how to control it through a computer so that it would aid in tele operated Robots. Have you ever wondered controlling a robot through a Computer and Internet? This workshop teaches you to realize it.

About the Resource person:



Rajashekhar V.S is a Mechanical Engineer who is currently a Project Assistant at **Indian Institute of Science**, Bangalore. He has a Masters in Advanced Manufacturing Technology from SASTRA University, India. He has published about 25 papers and has **one US Patent granted** in the field of Robotics. He has worked at Tata Consultancy Services, IIIT Hyderabad, TAL Manufacturing Solutions Limited in field of Robotics. He has built about 20 Innovative Robots.

About us

Centre of excellence for Digital Farming solutions for Enhancing Productivity by Robots, Drones and AGV's (**DFSRDA**), VNMKV, Parbhani, Maharashtra. "The Centre of excellence for Digital Farming solutions for Enhancing Productivity by Robots, Drones and AGV's" (DFSRDA) Under Center for Advanced Agricultural Science and Technology (CAAST) is being implemented in Vasantao Naik Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra under world bank Sponsored National Agricultural Higher Education Project (NAHEP) of Indian Council of Agricultural Research (ICAR), New Delhi, Government of India, Since 2019. The main objective of this center is to educate PG/PhD students and faculties about advances in science and technology.

Course Content

- Aerial manipulation is a challenging task. Visual perception, control and motion planning of UAVs, and mechanism design of the end-effector, are essential for an aerial manipulation system.
- Real-time target tracking need to be performed during the aerial grasping process.
- Stable control of the UAV is important for an aerial grasping system, in unstable condition.
- To reduce the computational complexity, the visual object detection system incorporated.
- Autonomous grasping strategy and control laws of the grasping system are performed by center of mass of the UAV with the manipulator changes when the robotic arm moves.

Target Audience

UG,PG/Ph.D Research Scholars Faculty of VNMKV University, Parbhani and other Agricultural Universities.

No Registration fees interested candidates can register here:

https://docs.google.com/forms/d/e/1FAIpQLSfzOsF DfcMha73HcAccRd5s3uY-cc7MUOrb54di_yIAk5Cedg/viewform on or before **May 23, 2020 up to 9am.**

Instructions

Participants need to register by clicking on the link above and should provide an active email Id and WhatsApp number for further communication.

PATRON  Dr. A.S. DHAWAN Vice-Chancellor VNMKV, Parbhani	NAHEP DIRECTOR  Dr. R.C. AGRAWAL National Director NAHEP, ICAR, Delhi	CHIEF-CONVENOR  Dr. PRABHAT KUMAR, National Coordinator, (M & E) NAHEP ICAR, Delhi	HOST DIRECTOR  Dr. D.N. GHOKALE, Dean & DI VNMKV, Parbhani
CONVENOR  Dr. GOPAL U. SHINDE Principal Investigator VNMKV, Parbhani	CO-CONVENOR  Er. S.N. PAWAR Assistant Professor Agriculture engineering VNMKV, Parbhani	CO-CONVENOR  Er. D.D. TEKALE Assistant Professor Farm Machinery & Power Engineering VNMKV, Parbhani	ORGANIZING SECRETARY  Er. D.V. PATIL Assistant Professor Farm Machinery & Power Engineering VNMKV, Parbhani

Training coordinators

Er. Tanvir Ambekar (RA), Er. Kolloji Ravi Kumar (RA),
(+91-9975336920) (+91-9533933360)

Technical Assistance

Er. Tanzim Khan (JE)
Er. Shailesh Shinde (JE)

Organized By

ICAR-National Agricultural Higher Education Project
Centre For Advanced Agricultural Science and Technology (CAAST)
Digital Farming solutions for Enhancing Productivity by Robots, Drones and AGV's (DFSRDA)
Vasantao Naik Marathwada Krishi Vidyapeeth, Parbhani-431402, Maharashtra, India