

# **Bhubaneswar Institute of Technology**

Info Valley, Harapur, Bhubaneswar, Odisha, India, Pin-752054 (Affiliated To Biju Patnaik University of Technology, Rourkela, Odisha & Approved By AICTE, Govt. Of India)

## **International Webinar on**

## "Distributed Robotics Platforms and Consensus" (DRPC- 2021) on 7<sup>th</sup> August 2021.

## <u>Theme of the Webinar</u>

This work discusses a mixed initiative controller and testbed for Human Robot Teams (HRT) in military/group work operations. We focus on a tactical operation that involves large teams of robots collaborating with one or more human agents, working collectively to achieve a common tactical goal. Our approach to HRT builds on earlier work in Mixed Initiative Control (MIC). The proposed proactive-MI approach allows the robots to assume or relinquish roles depending on their own capabilities and understanding of the environment. A key contribution to this research effort, and the focus of this paper, is the development of a HRT planning-execution framework and hardware-testbed to demonstrate HRT in tactical operations. The framework is built using software agents and Motion Description Languages (MDLe).

The agent architecture provides the framework for collaboration, and communication, between the human agents and the robot agents. The framework is also designed to enable easy addition of both low-level robot "drivers" and high-level control algorithms/plans as are needed for a particular tactical operation. Met-rics that are relevant to HRT in this particular domain are also presented.

In the last segment, we shall demonstrate consensus in simulation and show the usage of this platform for real life implementation of consensus.

#### **PARTICIPANTS**

Teachers of academic institutes, Officials of Government Organization, Personnel from Industries, Students pursuing Under Graduate, Post-Graduate and Ph.D. programme can participate in the webinar.

- Registration can be done using Google form link below.
- Participants will receive an e-mail of acceptance and guidelines to attend the online seminar. Web link for joining online sessions will be sent through e-mail id's the registered participants before the scheduled programme.
- E-Certificate will be issued to registered participants.
- Last date of registration is 06<sup>th</sup> August, 2021.
- Join the WhatsApp group after registration for getting updates about the webinar.
- Webinar date 07<sup>th</sup> August, 2021, Time 2:30 pm.

## Registration is FREE for all Participants

Registration link

https://forms.gle/V7aD3Fnqh5iGhvoa9

#### WhatsApp Group link

G1 - https://chat.whatsapp.com/Lxn2IgVhh0iFOp97x1ji6t

- G2 https://chat.whatsapp.com/IJGrvee4B8vKtHOTMlQZl0
- G3 https://chat.whatsapp.com/DiEJW8SrlUTDdeswI7tDD7

## **Eminent Expert**

BHUBANESWAR INSTITUTE OF TECHNOLOGY



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## Scan to register

