

# Online webinar on Underwater robotics in collaboration with IEEE JMI chapter-July

MTS-AUV ZHCET in collaboration with the IEEE Jamia Milia Islamia Student branch conducted a National Level webinar on google meet as a platform in July. The purpose of the webinar was to help JMI in starting their MTS student section and to establish a full-fledged MTS Student's Section. In the webinar, Shubham Singh along with Mohd Huzaifa and Salma Zehra Samshi introduced MTS-AUV ZHCET to the attendees, challenges faced by the club and its achievements. The webinar lasted for around more than 2 hours and was attended by more than 100 participants. Thus the webinar was broadcasted live on Youtube as well. At the end of the webinar, a special Q/A session was conducted where the attendees clarified their queries.

**CHALLENGES IN DESIGN & FABRICATION**

1. Leak proofing of the hull
2. Stability
3. Highly non linear time varying dynamic behaviour
4. Control under dynamic conditions
5. Uncertainties in hydrodynamic coefficients
6. Disturbances in ocean currents

Earth-fixed coordinate system:  $X_e, Y_e, Z_e$

Body-fixed coordinate system:  $X_b, Y_b, Z_b$

Force vectors: Buoyant Force (+Lift), Weight (-W), Drag (D), Propulsive Force (P)

Equations:  $F_x = PF - D$ ,  $F_y = L - W$

**Thank you for listening!!!**

You can find us on various social media sites:

@auv\_zhcet    AUV ZHCET CLUB

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