## IJARSCT





International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 5, Issue 11, April 2025



## **Underwater Rescue Machine for Flood Disaster**

Prof. S. M. Pangavhane, Isha C. Mahale, Nikhil M. Hande, Snehal S. Ambekar Department of Electronics and Telecommunication PVG's College of Engineering, Nashik, Maharashtra

Abstract: Flood disasters pose significant risks to human life, often resulting in drowning incidents and challenging rescue operations. To address this critical issue, we propose an innovative underwater rescue machine designed to efficiently locate and extract victims trapped in flooded areas. A robust gripping mechanism ensures the secure extraction of victims from hazardous situations. The machine can be remotely controlled by trained operators, minimizing risks to human rescuers. By leveraging these cutting-edge technologies, this underwater rescue machine aims to significantly enhance the efficiency and safety of flood rescue operations, saving lives and reducing the impact of natural disasters. Flood disasters cause significant damage and endanger lives, especially in areas with limited emergency response capabilities. Underwater rescue machines provide a promising solution for flood rescue operations, offering advanced navigation, obstacle detection, and human retrieval systems. These machines can operate through controlled remotely, making them ideal for searching submerged areas, rescuing stranded individuals, and providing real- time data to emergency response teams. The design considerations focus on mobility in floodwaters, durability, and adaptability to various terrains. This technology aims to enhance rescue efficiency, minimize risks to human rescuers, and ultimately save lives during flood disasters...

**Keywords:** Underwater rescue machine, Flood disaster, Disaster response technology, Human retrieval system, Floodwater mobility, Remote-controlled rescue



