

Abstract—In this work the novel teleoperation of real mobile robot is presented. In order to cope with the issue of random time delay which makes system unstable, Fuzzy logic approach has been used to design a stable controller to teleoperate AutoMerlin mobile robot. The fuzzy controller has been designed in such a way that it takes two inputs to give one output. First input is generated by human operator from control station using master device like joystick. The second input to the controller is generated based on the obstacles in front of mobile robot. The onboard proximity sensors scan the environment and the algorithm deployed on the mobile robot as local intelligence determines the location of nearest obstacle and feeds its value to controller as second input. When controller gets both inputs then it calculates the appropriate speed for mobile robot. The fuzzy rules have been defined in such a way that they protect the robot from colliding with obstacles and random delay does not affect the performance and stability. The presented results exhibit the performance and stability of overall system in the presence of random time delay.