

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM-590014



A Project Report on

**REPLICATION OF ARM MOVEMENTS ONTO AN
ORTHOTIC ARM USING EMG SIGNALS**

Submitted in partial fulfilment of the requirements for the award of the
degree of

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by

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ABSTRACT

As science advances day by day, people rely upon technology for their assistance. Several availabilities have been introduced by new technology to help people with disabilities. One of the best options among them is the human-assisting robot. Electromyography (EMG) is a technique used to measure myoelectric signals which are produced due to the electrical activities of the muscles. These signals can be used as control signals for the robot. In this project, we are replicating the movements of a healthy arm, from which the myoelectric signals are measured using surface electrodes, onto an orthotic arm. The proposed model aims primarily at people suffering from hemi paresis or neurodegenerative disorders.