VISVESVARAYA TECHNOLOGICAL UNIVERSITY,
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A Project Report on

EXOSKELETON FOR HUMAN PERFORMANCE AUGMENTATION

A Project Report Submitted in partial fulfillment of the requirement for the award of degree of

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In
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Abstract

An exoskeleton is defined as an active mechanical device that forms the outer framework of the human body to enhance the performance of an able-bodied wearer.

The human body is unsurpassed in the complexity of its design, performance and efficiency, but there are definite limitations to what we can achieve - we can only carry so much weight, jump so far or run so fast before we reach our physical boundary. Hence we humans have been augmenting our abilities with tools and further pushed the envelope of our understanding, striving to make ourselves bigger, stronger, faster and better. And through wearable robot exoskeletons we can extend our existing capabilities to create superhuman strength, speed and stamina. The exoskeleton suit uses a combination of several smaller technologies that all work in union to improve a human's normal ability, by improving the user's mobility and strength by using specific mechanisms.

The exoskeleton suit will be having profound applications in the field of manufacturing and construction industry, military services, commercial and for domestic purposes.