VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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Project Report
On

"SMART DC MICROGRID FOR EFFECTIVE UTILIZATION OF DISTRIBUTED RENEWABLE ENERGY"

(Sponsored by KSCST, IISc, Bangalore)

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BACHELOR OF ENGINEERING
IN
ELECTRICAL & ELECTRONICS

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ABSTRACT:

A new, smart distributed DC Micro-grid suitable for high-penetration and that efficiently utilizes energy available from distributed, renewable generators is described. It is shown that energy saving in excess of 10% is feasible using the proposed DC power distribution system when compared to the current approach where inverters are used. The proposed DC micro-grid architecture is hybrid in nature and is easily scalable to other power levels. It is ideally suited for residential and commercial applications as well as for powering sustainable communities.