

“GROUND POWER PROTECTION UNIT FOR AN AIRCRAFT ENGINE”

(SPONSORED BY K.S.C.S.T)

A project report submitted in partial fulfillment of the requirement for the award of the Degree of Bachelor of Engineering in Electronics & Communication Engineering of the Visvesvaraya Technological University, Belgaum.

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ABSTRACT

The project is designed to provide a simple and cost effective testing tool for all the essential parameters related to an Aircraft Engine and related Electrical Parameters. This system is designed to provide ground power protection device to safeguard aircrafts as-well as the testing procedures are very expensive.

As an example, Fighter aircraft will cost around 3000 crores and commercial aircraft will be still more costlier than fighter aircraft. And for the testing procedure; Starting up an aircraft engine every time is very tough because it requires lot of power, fuel consumption which may cause damage to the tar mat not only that it is not a easy job for starting up engine during every test as it is tough to hire a pilot for every test.

By using the op-amp, comparators, measuring unit, frequency counter, phase sequence, counters to measure the frequency band, rectifiers, potential dividers to measure the voltages continuously, control unit to control the signals and an sensing unit which senses the signal are used to develop the ground power protection for an aircraft.