# "STUDY ON BIO-DEGRADABILITY OF POLYMER COMPOSITES AND ITS EFFECTS ON ENVIRONMENTAL POLLUTION CONTROL"

**(APPROVED BY KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY IISC, BANGALORE)**

A Project report submitted in partial fulfillment of the requirement for the award of the degree of

**BACHELOR OF ENGINEERING**
**IN**
**MECHANICAL ENGINEERING**
**OF**
**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM.**


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# SYNOPSIS

The present work concentrates on the study of "Study on Bio-Degradability of polymer composites and its effects on environmental pollution control" experimentally.

Environmental pollution caused by the careless disposal of bio-inert plastics materials is now a serious unlimited problem all over the world. Polypropylene reinforced with Bio-fiber in different weight percentages and degraded with ultra violet (UV) radiation. Polypropylene composites are prepared using self made laminating machine, at about 220 degree Celsius temperature and 4 Mpa pressure. The laminated are degraded using UV radiation and degradation is measured. This is an attempt to check the bio-degradability of polypropylene composites. The analysis is done using SEM (scanning electron microscopy) for the compatibility of fibers the matrix. It is considered that the degradation is accelerated to stimulate the natural degradation.

Here an attempt has been made to study biodegradation of Bio-fiber reinforced polypropylene composites as a function of environmental stresses.