

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM-590014**



S.D.M COLLEGE OF ENGINEERING & TECHNOLOGY



DHARWAD - 02

A PROJECT REPORT ON

**THEORETICAL AND EXPERIMENTAL ANALYSIS OF INTEGRATED
SOLAR COOKER AND DRYER**

Under the guidance of
Prof. S.R.DABOJI
Co-guide
Prof. K. N. PATIL

SUBMITTED BY

Mr.SAMPREET JOSHI

2SD07ME078

Mr.SHOYAB K GARAG

2SD07ME093

Mr.SHRIKANT P

2SD07ME094

**Department of Mechanical Engineering
S.D.M. COLLEGE OF ENGG. & TECH. DHARWAD – 580 002**

2010-2011

ABSTRACT

In this project, an effort is being made to integrate both solar dryer and cooker in a single chamber for simultaneously working of both applications of solar energy

The aim of project is to Reconditioning the existing solar cooker and dryer. Conduct experimental and theoretical analysis, compare the result.

A forced convection solar dryer integrated with solar cooker has been fabricate and tested for onion and potato drying and cooking of rice, pigeon peas (toor dhal) and green gram (moong dhal). It composed of solar collector, and chamber housing both drying and cooking facility with blower arrangement. Simple passive and active designs were followed to enable to save energy requirement for fast operating. Therefore experimentally time taken for cooking 200 gm rice and 50 gm green gram is 3 and 2.5 hours respectively.