

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM - 590 014.



PROJECT REPORT
8th Semester, B.E.

“3-PHASE SMART CARD ENERGY METER”
(Sponsored by KSCST)

A Project Report submitted to Visvesvaraya Technological University in
partial fulfillment of the requirement for the degree of Bachelor of
Engineering in Electrical & Electronics

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CHAPTER 1

1. ABSTRACT

TITLE: Pre Paid Three Phase Energy Meter using ADE7758

In today's mechanized world with its industrial requirements of energy, with depleting natural resources and non-conventional resources of energy not being harnessed efficiently, it's imperative for the human being to conserve and effectively monitor the consumption of energy by developing new equipment which reduces the malfunctioning of the system due to some tactics followed by consumers? In a three-phase system, three circuit conductors carry three alternating currents (of the same frequency) which reach their instantaneous peak values at different times. Taking one conductor as the reference, the other two currents are delayed in time by one-third and two-thirds of one cycle of the electrical current. This delay between "phases" has the effect of giving constant power transfer over each cycle of the current. Three phase energy system has properties that make it very desirable in electric power systems. The phase currents tend to cancel out one another, summing to zero in the case of a linear balanced load. This makes it possible to eliminate the neutral conductor on some lines.