

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM. 590 010



PROJECT WORK
(06ME 85)

**“DEVELOPMENT OF A MOBILE ROBOT FOR CLEARING
CLOGGED SEWER PIPES”**

(Sponsored by K.S.C.S.T)

Submitted in partial fulfillment of the requirements for the award of degree of

**Bachelor of Engineering
in
Mechanical Engineering**

University Reg. No.

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ABSTRACT

The advances in robotics, in the last ten years, have enabled robot technology to solve many practical problems that we encounter in our day-to-day activities. But even today in India, whenever there is any clogged drain in the sewer lines; men enter the manholes with virtually no technical equipment and clear the blocked sewer manually. It is imperative that this method of manually cleaning the drainage, ceases to operate and a new solution be found that can avoid entry of men into the manhole.

So the objective of the project is to develop a mobile remote that will enter the sewer manhole and clear the clogged sewer. The various goals that the robot entering the sewer pipe will accomplish are considered and a conceptual design is finalized that satisfies those goals and functional requirements.

A solid model of the prototype is developed, which elaborates the mechanical structure of the robot. After completion of the detailed solid model, a simple prototype of the proposed design is fabricated, the emphasis being on low cost and easy controllability. The prototype is a mobile robot moving on a smooth ground that crushes simple obstructions which come along its path. The intent is to justify the verity of the proposed mechanism.