

**CONCEPTUAL DESIGN OF THERMOTHERAPY
EQUIPMENT FOR HUMAN BODY
MINI PROJECT REPORT**

Submitted to



DEPARTMENT OF MECHANICAL ENGINEERING, AIET

Affiliated to



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Karnataka State, INDIA-590018

In partial fulfilment of the requirements for the award of the Degree of

BACHELOR OF ENGINEERING
in
MECHANICAL ENGINEERING

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CERTIFICATE

Certified that the project work entitled **CONCEPTUAL DESIGN OF THERMOTHERAPY EQUIPMENT FOR HUMAN BODY** is a bona fide work carried by **CHARAN KUMAR (4AL21ME004), SUDESH D SHETTY (4AL21ME015), KRISHNA KYADGIHALLI (4AL22ME402)** are bona fide student of Mechanical Engineering Alva's Institute of Engineering and Technology in partial fulfilment for the award of BACHELOR OF ENGINEERING in MECHANICAL ENGINEERING of the VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI during the year 2024–2025. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

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ABSTRACT

This project focuses on the conceptual design of thermotherapy equipment aimed at addressing the challenges faced in traditional Ayurvedic thermotherapy practices. Traditional methods often fail to maintain a consistent temperature, resulting in time-consuming and inefficient treatments. The goal was to develop a system capable of maintaining a constant 160°C using a nichrome heating coil insulated with magnesium oxide. An automated temperature control mechanism was integrated to ensure precision and stability throughout the treatment process. The design was modeled using CAD software, and validation tests confirmed the equipment's ability to sustain a stable temperature with minimal fluctuation. This innovation improves the efficiency and effectiveness of Ayurvedic thermotherapy by eliminating the need for manual reheating and ensuring uniform heat distribution. Future work will focus on optimizing insulation, enhancing control systems, and conducting real-world testing to further refine the equipment. This project marks a significant step towards modernizing traditional Ayurvedic therapeutic techniques.