



# ALVA'S AYURVEDA MEDICAL COLLEGE

A unit of

ALVA'S EDUCATION FOUNDATION (R.), Moodbidri - 574227

(Affiliated to RGUHS, Bangalore, Recognized by AYUSH, Govt. of India, Apex Body-CCIM, New Delhi)

AAMC/2022/PG/PL/43

06.09.2022

To,

The Principal,  
Alva's Institute of Engineering College,  
Mijar, Moodbidri.

Respected Sir,

Sub: Requisition to give permission for utilizing the mechanical  
Department for thesis work.

This is to certify that Dr. Amrutha Chandran is a bonafide I year Post Graduate Scholar in the department of Panchakarma. For the completion of her thesis work she would like to do modify Upanaha equipment with the Mechanical Department of your institution. I request your kind self to do the needful and support her in every possible way.

Thanking you,

Yours faithfully,

PRINCIPAL

PRINCIPAL

ALVA'S AYURVEDA MEDICAL COLLEGE  
VIDYAGIRI, MOODUBIDIRE - 574227

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY,  
BELAGAVI 590018**



A project report on

**“DESIGN AND FABRICATION OF EQUIPMENT FOR UPANAHA  
KALPANA TREATMENT”**

Submitted in partial fulfillment of the requirements for the degree of  
**BACHELOR OF ENGINEERING**

**IN**

**MECHANICAL ENGINEERING**

**D JAYKUMAR**

**4AL19ME007**

**PRAJWAL R**

**4AL19ME019**

**RAKESH S**

**4AL19ME024**

**VENKATASHIVAREDDY**

**4AL19ME031**

Under the Guidance of

**Prof. KIRAN C H**

Assistant Professor,  
Dept. of MECHANICAL ENGINEERING



**ALVA'S**  
Education Foundation

**Department of Mechanical Engineering**

**ALVAS INSTITUTE OF ENGINEERING AND TECHNOLOGY  
MOODBIDRI-574225, KARNATAKA**

**2022 – 2023**



# ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Mijar, Moodbidri D.K. -574225 – Karnataka



**ALVA'S**  
Education Foundation

## DEPARTMENT OF MECHANICAL ENGINEERING

### CERTIFICATE

Certified that the project work entitled "**Design and fabrication of equipment for Upanaha Kalpana treatment**"


is a bona-fide work carried out by

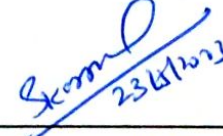
<b>D JAYKUMAR</b>	<b>4AL19ME007</b>
<b>PRAJWAL R</b>	<b>4AL19ME019</b>
<b>RAKESH S</b>	<b>4AL19ME024</b>
<b>VENKATASHIVAREDDY</b>	<b>4AL19ME031</b>

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 VISVESVARAYA TECHNOLOGICAL

**UNIVERSITY, BELAGAVI**, during the year 2022–2023. 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.

  
\_\_\_\_\_  
**Prof. Kiran C H**  
Project Guide

  
\_\_\_\_\_  
**Dr. Satyanarayana**  
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Dept. Of Mechanical Engineering  
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\_\_\_\_\_  
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Mijar, MOODBIDRI - 574 225, D.K.

#### External Viva

Name of the Examiner

- 1) **Dr. G.B. Naggar**
- 2) **Dr. Neelakantha V.L**

Signature with Date

 **23/5/23**  
 **23/05/23**

## ABSTRACT

Upanaha Kalpana, an ayurvedic treatment which has been used from ancient time. The poultice or paste is typically made from a combination of herbs, spices, and other natural ingredients, and is often wrapped in a cloth or bandage to keep it in place. It is commonly used to treat conditions such as arthritis, sprains, strains, and other musculoskeletal injuries. The doctors were facing some difficulties using traditional method, like it is not able to supply required constant heat supply and treatment takes longer duration of 6-8hrs per day for a week. The present study aimed to design and fabricate an efficient and user-friendly Upanaha Kalpana equipment that can improve the delivery of this therapy. The heating system ensures consistent and controlled temperature regulation, allowing for the optimal release of active compounds from the herbal poultices. The supplied heat can be controlled using a monitoring system where patients can set the temperature of their desire which is in the range of 25 °C to 65 °C. The equipment's fabrication involved the use of high-quality materials and components, ensuring its durability and reliability. The poultice is applied over the affected region of the patient and device is kept over the poultice. This device also helps in reducing the intervention time of a doctor or nurse on regular daily basis. This equipment is made portable so that it can be used everywhere at any point of time. This equipment can significantly improve the effectiveness of this traditional Ayurvedic therapy. This project was tested on 12 patients where we got satisfactory feedback from them. Further study on materials will increase the effectiveness of the device.

**Keywords:** Upanaha Kalpana, poultice, arthritis, constant heat supply, Monitoring system, portable device.

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### CONCLUSION

- The results of analytical method and numerical method was satisfied.
- The equipment made was successful in controlling the flow of heat and monitor the equipment
- It was able to transfer the required amount of heat to the affected area.
- The model should be tested on the patients and get their feedback and implement in future scope.



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AAMC/2023/PG/PL/23

23.06.2023

To,

The Principal,  
Alva's Institute of Engineering College,  
Mijar, Moodbidri.

Respected Sir,

## Sub: Letter of Gratitude

We express our sincere gratitude to you, for providing the Upanaha instrument as a part of the thesis work and it has been very useful to the PG scholar.

We appreciate and whole heartedly thank you for your timely support.

Thanking you,

Yours faithfully,

PRINCIPAL

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