

# **SREE NARAYANAGURU COLLEGE OF ENGINEERING & TECHNOLOGY**

(Affiliated to APJ Abdul Kalam Technological University and approved by AICTE New Delhi)



## **MINI PROJECT**

### **REPORT ON**

#### **SANITORY NAPKIN VENDING MACHINE**

*Submitted in partial fulfilment of the requirement for the award  
of the degree of Bachelor of Technology*

*Presented by*

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING**

**A P J ABDUL KALAM TECHNOLOGICAL UNIVERSITY**

**2023**

  
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PAYANUR, KANNUR

# **SREE NARAYANAGURU COLLEGE OF ENGINEERING & TECHNOLOGY**


(Affiliated to APJ Abdul Kalam Technological University and approved by AICTE New Delhi)





*DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING*

## **BONAFIDE CERTIFICATE**

This is to certify that the Project entitled “**SANITORY NAPKIN VENDING MACHINE**” is a bonafide record of the work done by **MEGHANA GANGADHARAN, FATHIMA NASLA M V, SANJAY SUDHAKARAN, DEEPNA C** of Sixth Semester **Electronics and Communication Engineering** towards the partial fulfilment for the award of the degree of **Bachelor of Technology** by KTU Technological University.

  
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## ACKNOWLEDGMENT

I would like to express my whole hearted gratitude to all who helped in this endeavor. I also take this opportunity to thank our management, **Sree Bhakthi Samvardhini Yogam, Kannur.**

I also thank our Principal **Dr. Leena A.V** for having provided me with all facilities required for successful completion of my seminar.

My sincere thanks to Professor **Leena Narayanan**, Head of Department ECE, Sree

Narayana Guru College of Engineering and Technology, Payyanur for his encouragement and well wishes to carry out this project.

I express my heartfelt gratitude to our mini project coordinators, **Ms. Vani R, and Ms. Thrishna S** Assistant Professor ECE, and lab staff **Mr. Shahith P**, Sree Narayana Guru College of Engineering and Technology Payyanur for their valuable suggestion and guidance.

I pay my regards to all our teachers and non-teaching staffs in our college for the knowledge they have imparted for us I am also grateful to our family members and friends for their cooperation and support.


Above all, I also owe my gratitude to God almighty for showering abundant blessing upon me. Above all it is the grace and blessing of God the Almighty, which make this endeavor success.



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## ABSTRACT


Nowadays women are leading their countries. They are working all over and playing important role in development. During the time of work their health, hygiene should be taken care especially at the time of menstruation. During menstruation women has to regularly change sanitary napkin in every 5-6 hours. Thus, easy availability of napkin is necessary. Use of napkins not only contribute towards women hygiene but also creates lots of plastic hazard results in environmental pollution. Uses of napkins are necessity but disposal of it is mandatory. The solution of both of this problem is installing automatic sanitary napkin vending and disposal machine. Fabrication of both vending and disposal machine will provide an easy availability of napkin and disposal of napkin at the same time in hygiene manner. This system aims to work on solar powered intelligent sanitary napkin vending and disposal machine. Both machines are operated in fully automatic manner. The machines can be transportable. In vending machine, the person can refill napkins when stock is out. It can be possible by easy way to him due to automatic message send on his mobile. This machine can be used in industries due to use of RFID card. Disposal machine is eco-friendly. Use of double chamber in machine makes it more hygienic. Ash generated after disposal can be flash out easily or can be used as manure for plants by installing vending and disposal machine in school, colleges, industry and in rural areas contribute towards eco-friendly environment.



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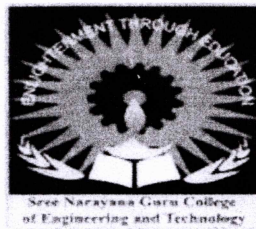
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**MINI PROJECT**

**REPORT ON**

**HEART RATE MONITOR**

*Submitted in partial fulfillment of the requirement for the award of the degree of  
Bachelor of Technology*

Presented by

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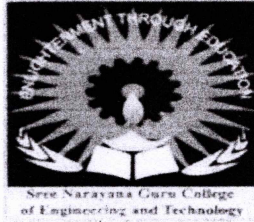
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**2023**

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This is to certify that the project entitled "**HEART RATE MONITOR**" is a bonafide record of the work done by **THEJASREE T K** of SIXTH Semester **Electronics and Communication Engineering** towards the partial fulfilment for the award of degree of Bachelor of Technology by APJ Abdul Kalam Technological University.

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## ABSTRACT

Heart rate, body temperature and blood pressure monitoring are very important parameters of human body. Doctors use various kinds of medical apparatus like thermometer for checking fever or body temperature, BP monitor for blood pressure measurement and heart rate monitor for heart rate measurement. In this project, we look forward in building a heartbeat monitor which counts the number of heartbeats within a desired time. Using a heartbeat sensor module which senses the heartbeat upon putting a finger on the sensor to make a Smart Health Monitoring Device that can measure SpO<sub>2</sub> (percentage of oxygen in the blood) and heart rate in BPM (Beat per Minute).

## ACKNOWLEDGMENT

I would like to express my whole hearted gratitude to all who helped in this endeavor. I also take this opportunity to thank our management, **Sree Bhakthi Samvardhini Yogam, Kannur.**

I also thank our Principal **Dr. Leena A.V** for having provided me with all facilities required for successful completion of my seminar. My sincere thanks to Professor **Leena Narayanan**, Head of Department ECE, Sree Narayana Guru College of Engineering and Technology, Payyanur for his encouragement and well wishes to carry out this project.

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