

## SRI MITTAPALLI COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi & Affiliated to JNTUK, KakinadaAn ISO 9001:2015 Certified Institution and Accredited By NAAC NH-16, Tummalapalem, Guntur-522233, A.P.

Date: 31-05-2022

To
The SECRETARY,
Sri Mittapalli College of Engineering,
Tummalapalem

Sub: Requested for Sanction of budget Rs .3,19,683.00/- Reg.

This is to bring to your kind notice that, the final year students would like to undertake on research projects in the academic year 2021-22 in our college on this note I request you sanction the budget Rs. 3,19,683.00/- under the Research and Development fund. As per our research policy.

This is to bring your kind notice that the following project proposals are received from faculty & students. The detained budget proposals are given below.

#### **FACULTY**

Sir,

S.No	Name of the Investigators	Department	Name of the project	Estimated cost
1	Dr. N. PRABHAKARAN & Dr. B NAVEEN KUMAR	CSE	SMART ATTENDANCE MONITORING AND AUTO PAGING SYSTEM	68,450.00
2	Mrs. G THANUJA & Mrs. D LAKSHMI	ECE	FIELD MONITORING AND AUTOMATION USING IOT IN AGRICULTURE DOMAIN	68,450.00
3	Mrs. K INDUMATY & Ms. SK MABIBI	CSE	IOT BASED SOLDIER HEALTH AND POSITION TRACKINGSYSTEM	67,350.00
4	Mrs. K SUNITHA & Mrs. S MOUNIKA	ECE	SECURE IOT PLATFORM FOR INDUSTRIAL CONTROL SYSTEMS	66,970.00
Total			2,71,220.00	

## **STUDENTS**

Dept. of ECE:

S.No	Name Of The Project Guide	- Name Of Project	Estimated cost	
1	P SUDHAKAR	IOT Based Fire Department Alerting System	1874.00	
2	KSUNITHA	Smart and Automatic Drunken Drive Detecting System	10864.00	
3	M PARAMESWARARAO	IOT Based Home Automation	1491.00	
4	POKŲRI PRAKASH	IOT Smart Based Agriculture System	2113.00	
5	GUNTUPALLI SIVA SANKAR	IOT Based Smart Parking with Auto- Blinking System	670.00	
6	CH SRINIVASA RAO	IOT Based Garbage Monitoring System	2018.00	
	Total 19030.00			

## Dept. of Civil:

S.No	Name Of The Project Guide	Name Of Project	Estimated cost
1	AKKALA PAVANI	EXPERMENTAL STUDY ON BIM MODELLING OF RAILWAY BRIDGE (2022)	6500.00
2	BANGARU VIDYA SAGAR	EXPERMNETAL STUDY ON GREEN SCHOOL CONSTRUCTION	4500.00
3	DUDDU KISHORE BABU	EXPERMENTAL STUDY OF DESIGN OF MULTISTORED BUILDING	5000.00
Total			16000.00

#### Dept of MECH:

S. No	Name Of The Project Guide	Name Of Project	Estimated cost
1	B KIRAN KUMAR	Design and fabrication of manually operated washing machine by using bicycle	5500.00
2	BATHULA YEDUKONDALA RAO	Wide 3 Wheel Steering System Chassis	7933.00
	Total		

Total amount for Faculty Projects: 2,71,220.00/-.

Total amount for Students Projects: 48,463.00/-.

Thanking you,

PRINCIPAL (Dr. P.V. NAGANJANEYULU)

PRINCIPAL
SRI MITTAPALLI COLLEGE
OF ENGINEERING

TUMMALAPALEM, NH-5 Guntur (Dt.), A.P. Pin: 522 233

# IN HOUSE R&D PROJECT ON SMART ATTENDANCE MONITORING AND AUTO PAGING SYSTEM

Submitted

by

Dr. N. PRABHAKARAN

Professor CSE

Dr. B NAVEEN KUMAR

Professor CSE

#### SRI MITTAPALLI COLLEGE OF ENGINEERING



(Approved by AICTE, New Delhi & Affiliated to JNTU, Kakinada)

TUMMALAPALEM, NH-16, GUNTUR (Dist),

## SUBMISSION OF PROPOSAL FOR In- House R&D Project

Date: 02-09-2021

PART-A

1. Board Area

: Engineering and Technology

2. Area of Specialization

: IOT

3. Title of the project

: SMART ATTENDANCE MONITORING AND AUTO

**PAGING SYSTEM** 

4. Duration

: 1 Year

5. Principal Investigator

Name

: Dr. N. PRABHAKARAN

Gender

: Male

Qualification

: M. Tech, PhD

Designation

: Professor

Address

Office

Dr. N.PRABHAKARAN

Professor and Mentor of CSE

Sri Mittapalli College of Engineering, Tummalapalem,

Guntur (Dist), Andhra Pradesh- 522233

6. Co-Investigator

Name

: Dr. B NAVEEN KUMAR

Gender

: Male

Qualification

: M. Tech, PhD

Designation

: Professor Mentor for CSE

Address

Office

DR. B NAVEEN KUMAR

Professor and Mentor of CSE

Sri Mittapalli College of Engineering, Tummalapalem,

Guntur (Dist), Andhra Pradesh- 522233

#### 1. Proposed Research work

#### (i). Project Title: SMART ATTENDANCE MONITORING AND AUTO PAGING SYSTEM

#### (ii) INTRODUCTION:

An Embedded system is a combination of computer firmware and hardware, fixed in capability or programmable, designed for a specific function or functions within a larger system. An embedded system is a controller with a dedicated function within a larger mechanical or electrical system, often with real time computing constrains. It is embedded as part of a complete device often including hard ware and mechanical parts. Embedded systems control many devices in common use today. Ninety-eighty percent of all microprocessors manufactured are used in embedded systems. Modern embedded systems are often based on microcontrollers (i.e., Microprocessors with integrated memory and peripheral interfaces), but ordinary microprocessors (using external chips for memory and peripheral interface circuits) are also common, especially in more complex systems. Since the embedded system is dedicated to specific tasks, design engineers canoptimize it to reduce the size and cost of the product and increase the reliability and performance. Some embedded systems are mass-produced, benefiting from economies of scale.

#### **Objectives**

#### **Broad Objective**

The broad objective is to design and development of smart attendance monitoring and auto paging system

#### Specific Objective

- Generally the attendance system in schools and colleges will have an attendance register andthey need to update that in the computer at the end of the month.
- They need to analyse the attendance for different purposes it will take a lot of time to analyse
  for that reason wepropose a system which takes the attendance by using the finger print biometric module inschools/colleges.
- By this system the verification of a student is done and the system thatautomates the whole
  process of taking attendance.
- In this system we added a one more approach is the system will send the attendance report to the head with in the time limit and the parents got the messages regarding the absenties

#### Year-Wise Plan of Work and targets to be achieved.

1st year: Further review of literature and continuing research in the area development of smart attendance monitoring and auto paging system

#### 2. Financial Assistance Required

S.No	Item	Estimated Expenditure (Rs)
	Non-Recurring	
1	Books and Journals	
2	Arduino uno Finger print sensor Sim 900 GSM/GPRS MODULE LCD Display Buzzer RTC(Real time clock/calendar)	51950
	Recurring	
3	Field work and Travel	7000
4	Contingency(including special needs)	9500
	Total	68450

- 3. Any other information which the teacher may like to give in support of this proposal
  - In order to save energy and make loads monitored easily, this research suggests smart home project based on IoT technology.
  - This smart home is an Internet of Things (IoT) project that controls loads with internet connection via Wireless Fidelity WIFI connection.
  - A smart phone connected to internet with Blynk application as a control panel, and NodeMCU microcontroller kit in other side as a controller that receives control commands via WIFI signal
  - NodeMCU kit is built with ESP8266 WIFI receiver that able to process and analyze
     WIFI signal to input the microcontroller.

#### REFERENCES

- [1] MurizahKassim, Hasbullah Mazlan, NorlizaZaini, Muhammad Khidhir Salleh "Web-based Student Attendance System usingRFIDTechnology" 2012IEEE.
- [2] B. Rasagna, Prof. C. Rajendra "SSCM: A Smart Systemf or College Maintenance" International Journal of Advanced Research in Computer Engineering & Technology, May 2012.
- [3] LIJian-po,ZHUXu-ning,LIXue,ZHANGZhi-ming "Wireless Fingerprint Attendance System Based on ZigBee Technology" 2010IEEE.
- [4] O. Shoewu, O.A. Idowu "Development of Attendance Management System using Biometrics" The Pacific Journal of Science and Technology, May2012.
- [5] L. Rajasekar, S. Vivek "Wireless Fingerprint Attendance System using ZigBeeTechnology"InternationalJournalofPowerControlSignalandComputation(IJP CSC), Vol3.No1. Jan-Mar 2012.
- [6] ZatinSinghal, Rajneesh Kumar Gujral"AnytimeAnywhere-RemoteMonitoringof Attendance System based on RFID using GSM Network" International Journal of Computer Applications, February 2012.

#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date:16<sup>th</sup> March 2022

To

The principal,

Sri Mittapalli College of Engineering

Tummalapalem

Through HOD-CSE

Sir,

Sub: Expenditure statement – In-House R&D Project- A.Y. 2021–2022 Reg.

This is to bring to your kind notice that, the project entitled "SMART ATTENDANCE MONITORING AND AUTO PAGING SYSTEM" is Proposed to do In-House R & D project for the academic year 2021–2022. I am here with submitting the approximate amount required to meet the requirements of the Equipment purchased and other miscellaneous.

S.No	Equipment	Estimated cost (Rs)
1	<ul> <li>Arduino uno</li> <li>Finger print sensor</li> <li>Sim 900 GSM/GPRS MODULE</li> <li>LCD Display</li> <li>Buzzer</li> <li>RTC(Real time clock/calendar)</li> </ul>	51950
2	Field Work and Travel	7000
3	Contingency	9500
	Total	68450

Amount (Rs)

Expenditure towards equipment

51950

Thanking you,

Investigator

DR.N.PRABHAKARAN

EPARTMENT OF COMPUTER SCIENCE & ENGINEERING

NH-16, THUMMALAPALEM. GUNTUK-522 233.

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 16th March 2022

To

The Secretary,

Sri Mittapalli College of Engineering

Tummalapalem

Sir,

Sub: Requested for Sanction of budget Rs. 66,250.00 under In-house R & D – Reg.

This is to bring to your kind notice that, the project entitled "SMART ATTENDANCE MONITORING AND AUTO PAGING SYSTEM" is approved as In-House R & D in the academic year 2021-2022. Here we are submitting the estimated cost along with required equipment to carry out the project.

S.No	Equipment	Estimated cost (Rs)
1	Arduino uno Finger print sensor Sim 900 GSM/GPRS MODULE LCD Display Buzzer RTC(Real time clock/calender)	51950
2	Field Work and Travel	7000
3	Contingency	9500
	Total	68450

Hence, I request you to sanction the budget of Rs (Rupees) under Research and Development fund. As per our Research policy

Thanking you,

(Dr. P. VPRINCAPAL NEVILLU

SRI MTT

History College

## IN HOUSE R&D PROJECT ON FIELD MONITORING AND AUTOMATION USING IOTINAGRICÜLTUREDOMAIN

#### Submitted

by

Mrs. G THANUJA Assistant Professor ECE

Mrs. D LAKSHMI Assistant Professor ECE

#### SRI MITTAPALLI COLLEGE OF ENGINEERING



(Approved by AICTE, New Delhi & Affiliated to JNTU, Kakinada)
TUMMALAPALEM, NH-16, GUNTUR (Dist.),

## SUBMISSION OF PROPOSAL FOR In- House R&D Project

Date: 07-06-2021

PART-A

1. Board Area

: Engineering and Technology

2. Area of Specialization

: IOT

3. Title of the project

: FIELD MONITORING AND AUTOMATION USING IOT IN

AGRICULTURE DOMAIN

4. Duration

: 1 Year

5. Principal Investigator

Name

: G THANUJA

Gender

: Female

Qualification

: M. Tech

Designation

: Assistant Professor

Address

Office

G THANUJA

Assistant Professor and Mentor of ECE

Sri Mittapalli College of Engineering, Tummalapalem,

Guntur (Dist.), Andhra Pradesh- 522233

6. Co-Investigator

Name

: D LAKSHMI

Gender

: Female

Qualification

: M.Tech

Designation

: Assistant Professor

Address

Office

: D LAKSHMI

Assistant Professor and Mentor of ECE

Sri Mittapalli College of Engineering, Tummalapalem,

Guntur (Dist.), Andhra Pradesh- 522233

#### 1. Proposed Research work

- (i) Project Title: FIELD MONITORING AND AUTOMATION USING IOT IN AGRICULTURE DOMAIN
- (ii) Introduction

Microchip has positioned itself to target the motor control market, where our advanced designs, progressive process technology and industry leading product performance enables us to deliver decidedly superior performance over our competitors, which includes the best of the industry. These products are positioned to provide a complete product solution for embedded control applications found throughout the consumer, automotive and industrial control markets. Microchip products are meeting the unique design requirements of the motion control embeddedapplications.

#### (iii) Objectives

#### Broad Objective

The broad objective is to design and development of FIELD MONITORING AND AUTOMATION USING IOT IN AGRICULTURE DOMAIN

#### Specific Objective

- Theaimoftheimplementation was to demonstrate that the automatic irrigation can be used to reduce wateruse.
- A microcontroller for data acquisition, and transceiver; the sensor measurements are transmitted to a microcontroller.
- This gateway permits the automated activation of irrigationwhenthethresholdvaluesofsoilmoisture is reached

#### (iv) Year-Wise Plan of Work and targets to be achieved.

1<sup>st</sup> year: Further review of literature and continuing research in the area development of agriculturebased drones.

#### 2. Financial Assistance Required

S.No	Item -	Estimated Expenditure (Rs)
	Non-Recurring	
1	Books and Journals	
2	Equipment  a) T1 - T5 BC 548 or 2N2222 Transistors b) R1-R5 2.2K 1/4 W Resistors c) R6-R10 22K 1/4 W Resistors d) D1 - D5 LED's (color your choice	50,200.00
	Recurring	
3	Field work and Travel	7250
4	Contingency (including special needs)	11000
	Total	68450

- 3. Any other information which the teacher may like to give in support of this proposal
  - In order to save energy and make loads monitored easily, this research suggests smart home project based on IoT technology.
  - This smart home is an Internet of Things (IoT) project that controls loads with internet connection via Wireless Fidelity WIFI connection.
  - A smart phone connected to internet with Blynk application as a control panel, and NodeMCU microcontroller kit in other side as a controller that receives control commands via WIFI signal
  - NodeMCU kit is built with ESP8266 WIFI receiver that able to process and analyze
     WIFI signal to input the microcontroller.

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 29th may 2022

To

The principal,

Sri Mittapalli College of Engineering,

Tummalapalem

Through -HOD-ECE

Sir,

Sub: Expenditure statement – In-House R&D Project- A.Y. 2021–2022 Reg.

This is to bring to your kind notice that, the project entitled "SMART HOME SECUIRTY USING IOT" is proposed to do In-House R & D project for the academic year 2021–2022. I am here with submitting the approximate amount required to meet the requirements of the Equipment purchased and other miscellaneous

S.No	Equipment	Estimated cost (Rs)
1	<ul> <li>T1 – T5 BC 548 or 2N2222 Transistors</li> <li>R1-R5 2.2K 1/4 W Resistors</li> <li>R6-R10 22K 1/4 W Resistors</li> <li>D1 – D5 LED's</li> </ul>	50,200. ·
2	Field Work and Travel	7250
3	Contingency	11000
	Total	68450

Amount (Rs)

Expenditure towards equipment

50,200.

Thanking you,

Head of the Department

Electronics & Communication Engineering SRI MITTAPALLI COLL TO THE ENGLY OF THE ENGINEERING OF THE ENGLY OF T

T. aviMALAPALEW, INT-10, GUINTUR.

G THANUJA

#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 29th may 2022

To

The Secretary,

Sri Mittapalli College of Engineering

Tummalapalem

Sir,

Sub: Requested for Sanction of budget Rs. 66,250.00 under In-house R & D – Reg.

This is to bring to your kind notice that, the project entitled "FIELD MONITORING AND AUTOMATION USING IOT IN AGRICULTURE DOMAIN" is approved as In-House R & D in the academic year 2021-2022. Here we are submitting the estimated cost along with required equipment to carry out the project.

S.No	Equipment	Estimated cost (Rs)
1	<ul> <li>T1 – T5 BC 548 or 2N2222 Transistors</li> <li>R1-R5 2.2K 1/4 W Resistors</li> <li>R6-R10 22K 1/4 W Resistors</li> <li>D1 – D5 LED's</li> </ul>	50,200.
2	Field Work and Travel	7250
3	Contingency	11000
	Total	. 68450

Hence, I request you to sanction the budget of Rs 68450.00 (Rupees) under Research and Development fund. As per our Research policy

Thanking you.

(Dr. P.V. NARMSHALYULU)

OF ENGINEERING TUMMALAPALEM, NH-5

Guntur (Dt.), A.P. Pin ; 522 233

## IN HOUSE R&D PROJECT ON IOT BASED SOLDIER HEALTH AND POSITION TRACKINGSYSTEM

Submitted

by

Mrs. K INDUMATY
Assistant Professor

Ms. SK MABIBI Assistant Professor

#### SRI MITTAPALLI COLLEGE OF ENGINEERING



(Approved by AICTE, New Delhi & Affiliated to JNTU, Kakinada)
TUMMALAPALEM, NH-16, GUNTUR (Dist),

## SUBMISSION OF PROPOSAL FOR In- House R&D Project

Date: 09-7-2021

PART-A

1. Board Area

: Engineering and Technology

2. Area of Specialization

: IOT

3. Title of the project

: IOT BASED SOLIDIER HEALTH AND POAITION

TRACKING SYSTEM

4. Duration

: 1 Year

5. Principal Investigator

Name

: K INDUMATY

Gender

: Female

Qualification

: M.Tech

Designation '

: Assistant Professor

Address

Office

: K INDUMATY

Assistant Professor and Mentor of CSE

Sri Mittapalli College of Engineering, Tummalapalem,

Guntur (Dist), Andhra Pradesh- 522233

6. Co-Investigator

Name : SK MABIBI

Gender : Female

Qualification : M.Tech

Designation : Assistant Professor

Address

Office : SK MABIBI

Assistant Professor and Mentor of CSE

Sri Mittapalli College of Engineering, Tummalapalem,

Guntur (Dist), Andhra Pradesh- 522233

#### 1. Proposed Research work

(i) Project Title: IOT BASED SOLIDIER HEALTH AND POAITION TRACKING SYSTEM

#### (ii) Introduction:

Microchip has positioned itself to target the motor control market, where our advanced designs, progressive process technology and industry leading product performance enables us to deliver decidedly superior performance over our competitors, which includes the best of the industry. These products are positioned to provide a complete product solution for embedded control applications found throughout the consumer, automotive and industrial control markets. Microchip products are meeting the unique design requirements of the motion control embedded applications.

#### (iii) Objectives

#### **Broad Objective**

The broad objective is to design and development of IOT BASED SOLIDIER HEALTH AND POAITION TRACKING SYSTEM

#### Specific Objective

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- In today's world, warfare is an important factor in any nation's security. One of the important and vital roles is played by the army soldiers.
- There are many concernsregarding the safety of soldiers. So for their security purpose, many instruments are mounted on them to view their health status as well as their real time location.
- This system enables to army control unit to track thelocation and monitor health of soldiers using GPS module and wireless body areasensor networks (WBASNs), such as temperature sensor, heart beat sensor, etc.
- Thedata coming from sensors and GPS receiver will be transmitted wirelessly using IOTamongthefellowsoldiers.

- Or we can send this text SMS to any authorized person in hospital.
- Then that person can intimate Doctor about ambulance location and patient health.
- By using these parameters, doctor can do the necessary preparation fortreatment of patient

#### (iv) Year-Wise Plan of Work and targets to be achieved.

#### 1st year:

Further review of literature and continuing research in the area development of soldier health and position tracking system.

2.

S.No	Item	Estimated Expenditure (Rs)
	Non-Recurring	
1	Books and Journals	0
2	Equipment      Arduino uno     Sensor     LM35 temperature sensor     GPS     GSM     Heartbeat sensor     Buzzer	50350

#### Recurring

3	Field work and Travel	7000
4	Contingency(including special needs)	10000
-	Total	67,350

- 3. Any other information which the teacher may like to give in support of this proposal
  - In order to save energy and make loads monitored easily, this research suggests smart home project based on IoT technology.
  - This smart home is an Internet of Things (IoT) project that controls loads with internet connection via Wireless Fidelity WIFI connection.
  - A smart phone connected to internet with Blynk application as a control panel, and NodeMCU microcontroller kit in other side as a controller that receives control commands via WIFI signal
  - NodeMCU kit is built with ESP8266 WIFI receiver that able to process and analyze
     WIFI signal to input the microcontroller.

#### REFERENCES

- Hock Beng Lim, Di Ma, Bang Wang, Zbigniew Kalbarczyk, Ravishankar K.Iyer, Kenneth L. Watkin (2010) "A Soldier Health Monitoring System for Military Applications" International Conference on Body Sensor Networks,pp:(246-249).
- 2. William Walker, A. L. Praveen Aroul, Dinesh Bhatia (2009) "Mobile HealthMonitoringSystems" 31stAnnualInternationalConferenceoftheIEEEEMB S,Minneapolis, Minnesota, USA, pp. (5199-5202).
- 3. M. Pranav Sailesh, C. Vimal Kumar, B. Cecil, B. M. Mangal Deep, P. Sivraj(2014) "Smart Soldier Assistance using WSN" International Conference on Embedded Systems-(ICES 2014), IEEE, pp:(244-249).
- 4. P.S.Kurhe, S.S.Agrawal (2013) "Real Time Tracking and Health Monitoring System of Remote Soldier Using ARM 7", International Journal of

- Engineering Trends and Technology,4(3), pp:(311-315).
- 5. Shruti Nikam, Supriya Patil, Prajkta Powar, V.S.Bendre(2013)"GPS Based Soldier Tracking and Health Indication System" *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering*, 2(3), pp. (1082-1088).
- 6. Mr. Rajdeep Limbu, Prof. V. V. Kale (2014) "GPS Based Soldier Tracking and Health Monitoring System" *International Journal for Technological Researchin Engineering*, **1(12)**, pp. (1485-1488).
- 7. Rubina.A.Shaikh (2012) "Real Time Health Monitoring System of RemotePatient Using Arm7" International Journal of Instrumentation, Control and Automation, 1(3-4), pp: (102-105).
- 8. Ekta Madhyan, Mahesh Kadam (2014) "A Unique Health Care MonitoringSystem Using Sensors andZigBee Technology" *International Journal of Advanced Research In Computer Science and Software Engineering*, 4(6),pp:(501-509).
- 9. Dr. S. S. Riaz Ahamed (2009) "The Role of ZigBee Technology in Future Data Communication ystem" Journal of The oretical and Applied Information Technology, 5(2), pp: (129-135).
- 10. Nisha Ashok Somani, Yash Patel (2012) "ZigBee: A Low Power WirelessTechnology forIndustrial Applications" International Journal of ControlTheoryand Computer Modeling, 2(3), pp. (27-33).
- 11. P.Rohitha, P.Ranjeet Kumar, Prof. N. Adinarayana, Prof. T. Venkat Narayana Rao (2012) "Wireless Networking through ZigBee Technology" *International Journal of Advanced Research in Computer Science and Software Engineering*, 2(7), pp. (49-54).
- 12. Shruti Nikam, Supriya Patil, PrajktaPowar, V.S.Bendre (2013) "GPS based Soldier Tracking and Health Indication System" *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering*, 2(3).

#### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 13 April 2022

To

The principal,

Sri Mittapalli College of Engineering

Tummalapalem

Through HOD-CSE

Sir,

Sub: Expenditure statement - In-House R&D Project- A.Y. 2021-2022 Reg.

This is to bring to your kind notice that, the project entitled "IOT BASED SOLIDIER HEALTH AND POAITION TRACKING SYSTEM" is Proposed to do In-House R & D project for the academic year 2021–2022. I am here with submitting the approximate amount required to meet the requirements of the Equipment purchased and other miscellaneous.

S.No	Equipment	Estimated cost (Rs)
1	<ul> <li>Arduino uno</li> <li>Sensor</li> <li>LM35 temperature sensor</li> <li>GPS</li> <li>GSM</li> <li>Heartbeat sensor</li> </ul>	50350
	Buzzer	
2	Field Work and Travel	7000
3	Contingency	10000
	Total	67,350

Amount (Rs)

Expenditure towards equipment

50350.00

Thanking you,

K INDUMATY

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING SRI MITTAFALLI COLLECE OF ENGINEERING NR-16, THUMMALAPALEM. GUNTUR-522233.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 13 April 2022

To

The Secretary,

Sri Mittapalli College of Engineering,

Tummalapalem

Sir,

Sub: Requested for Sanction of budget Rs. 66,250.00 under In-house R & D - Reg.

This is to bring to your kind notice that, the project entitled "IOT BASED SOLIDIER HEALTH AND POAITION TRACKING SYSTEM" is approved as In-House R & D in the academic year 2021-2022. Here we are submitting the estimated cost along with required equipment to carry out the project.

S.No	Equipment	Estimated cost (Rs)
1	<ul> <li>Arduino uno</li> <li>Sensor</li> <li>LM35 temperature sensor</li> <li>GPS</li> <li>GSM</li> <li>Heartbeat sensor</li> <li>Buzzer</li> </ul>	50350
2	Field Work and Travel	7000
3	Contingency	10000
	Total	67,350

Hence, I request you to sanction the budget of Rs 67,350 (Rupees) under Research and Development fund. As per our Research policy

Thanking you,

(Dr. P.V. NAGANJANEYULU

SRI MITTAPALLI COLLEGE OF ENGINEERING TUMMALAPALEM, NH-5

Guntur (Dt.), A.P. Pin: 522 233

## IN HOUSE R&D PROJECT ON

## SECURE IOT PLATFORM FOR INDUSTRIAL CONTROL SYSTEMS

Submitted

by

Mrs. K SUNITHA Assistant Professor ECE

Mrs. S MOUNIKA Assistant Professor ECE

### SRİ MITTAPALLI COLLEGE OF ENGINEERING



(Approved by AICTE, New Delhi & Affiliated to JNTU, Kakinada) TUMMALAPALEM, NH-16, GUNTUR(Dist),

## SUBMISSION OF PROPOSAL FOR In- House R&D Project

Date: 18-7-2021

PART-A

1. Board Area

: Engineering and Technology

2. Area of Specialization '

: IOT

3. Title of the project

: SECURE IOT PLATFORM FROM FOR INDUFTRIAL

CONTROL SYSTEMS

4. Duration

: 1 Year

5. Principal Investigator

Name

: K SUNITHA

Gender

: Female

Qualification

: M. Tech

Designation

: Assistant Professor

Address

Office

K SUNITHA

Assistant Professor and Mentor of ECE

Sri Mittapalli College of Engineering, Tummalapalem,

Guntur (Dist.), Andhra Pradesh- 522233

6. Co-Investigator

Name

: S MOUNIKA

Gender

: Female

Qualification

: M. Tech

Designation

: Assistant Professor

Address

Office

: S MOUNIKA

Assistant Professor and Mentor of ECE

Sri Mittapalli College of Engineering, Tummalapalem,

Guntur (Dist), Andhra Pràdesh- 522233

#### 1. Proposed Research work

- (i) Project Title: SECURE IOT PLATFORM FROM FOR INDUFTRIAL CONTROL SYSTEMS
- (ii) Introduction:

Industrial control system (ICS) is an important term, which has been dedicating for monitoring and controlling of industrial infrastructures such as Oil, Gas, Manufacturing, Electricity and Transportation, and others, mainly combined with the most prominent control systems, such as the "supervisory control and data acquisition (SCADA) systems and distributed control systems (DCS), often employed in several industrial sectors of current era. ICS mainly deployed in the industries to control the overall structure of production plant, or other employed equipment's, to produce the desired production goals as according to specifications and requirements, through employing of several control components, varies according to industries specifications and performance paradigms, that consolidated together for producing of output. The ICS, however, have been designed and networked to provision the controlling functions that are may fully automated in controlling of the overall structure of sectors, such a transportation controlling and other areas like oil industry, or these controlling systems are self-control by individual or human in case of manual operational mode[1-4]. Eventually, Industrial control system uses several control components and required network (or system) configurations and setting of sensors, actuators and programmable logic controllers (PLCs), also including system controlling loops, diagnostics and maintenance equipment, graphical interfaces or human machine interface (HMI) and proprietary and nonproprietary protocols such as DNP3, Modbus, TCP/IP, UDP and others. ICS deployed system is usually controlled by one or more controllers (or control loops), however, overall system information is manipulated bases on the system specified set points between various networked equipment or sensors, with the usage of proprietary or/and non-proprietary protocols and functional control algorithm that controls these set points

#### (iii) Objectives

#### **Broad Objective**

The broad objective is to design and development of SECURE IOT PLATFORM FROM FOR INDUFTRIAL CONTROL SYSTEMS

#### Specific Objective

• The project is designed to implement a SCADA system, to monitor and control the various environment parameters.

- Here, the parameters are temperature, humidity, smoke and light. Theseparameters are sensed by using relevant sensors.
- Basically, the sensors are physical quantities, which are giving values in analog form.
  - But ARM Microcontroller is a digital circuit, whichunderstands the values in digital format only.
  - So, by using ADC, which can convert the valuesfromanalogtodigitalwillinterfacetoARM Microcontroller.
  - Now, the ARM Microcontroller has the values of parameters and this will be displayed on PC aswell as LCD.
  - The buzzer will buzz if the sensors values exceed the threshold limit. Based uponthese values we can control the corresponding appliances like turn ON or OFF using commandsfromPC.

#### Year-Wise Plan of Work and targets to be achieved.

1<sup>ST</sup> YEAR: Further review of literature and continuing research in the area development of agriculture based drones.

#### 2. Financial Assistance Required

S.No	Item	Estimated Expenditure (Rs)
	Non-Recurring	
1	Books and Journals	
2 .	Equipment  Capacitor filter  LCD display  Arduino uno  Sensor  LM35 temperature sensor  GPS  GSM  Heartbeat sensor	

#### Recurring

3	Field work and Travel	7300
4	Contingency (including special needs)	10000
	Total	66,970

- 3. Any other information which the teacher may like to give in support of this proposal
  - In order to save energy and make loads monitored easily, this research suggests smart home project based on IoT technology.
  - This smart home is an Internet of Things (IoT) project that controls loads with internet connection via Wireless Fidelity WIFI connection.
  - A smart phone connected to internet with Blynk application as a control panel, and NodeMCU
    microcontroller kit in other side as a controller that receives control commands via WIFI signal
  - NodeMCU kit is built with ESP8266 WIFI receiver that able to process and analyze WIFI signal
    to input the microcontroller.

#### References:

- 1. S, J., K. K., "Guide to Supervisory Control and Data Acquisition(SCADA) and Industrial Control Systems Security," Recommendations of the National Institute of Standards and Technology, 2006
- 2. M, S. A, "Secure security model implementation for security services and related attacks base on end-to-end, application layer and data link layer security,"
- 3. Proceedingsofthe7thInternationalConference,2013
- 4. S.A et al., "A New Cellular Architecture for Information Retrieval from Sensor Networks through Embedded Service and Security Protocols." Sensors 16,no.6(2016):821.
- 5. SCADA system, https://en.wikipedia.org/wiki/SCADA
- 6. J.G.,J.L, "SCADA communication and security issues. Security and Communication Networks", 2013
- 7. Internet of Things, https://en.wikipedia.org/wiki/IoT
- 8. IOTandSCADA: ComplimentarytechnologiesforIndustry4.0.
- 9. LopezResearchLLC, "BuildingSmarter ManufacturingWithTheIoT," 2014

#### SRI MITTAPALLI COLLEGE OF ENGINEERING

#### THUMMALAPALEM

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 28th March 2022

To

The principal,

Sri Mittapalli College of Engineering

Tummalapalem

Through HOD-ECE

Sir,

Sub: Expenditure statement - In-House R&D Project- A.Y. 2021-2022 Reg.

This is to bring to your kind notice that, the project entitled "SECURE IOT PLATFORM FROM FOR INDUFTRIAL CONTROL SYSTEMS" is Proposed to do In-House R & D project for the academic year 2021—2022. I am here with submitting the approximate amount required to meet the requirements of the Equipment purchased and other miscellaneous.

S.No	Equipment	Estimated cost (Rs)
1	<ul> <li>Capacitor filter</li> <li>LCD display</li> <li>Arduino uno</li> <li>Sensor</li> <li>LM35 temperature sensor</li> <li>GPS</li> <li>GSM</li> <li>Heartbeat sensor</li> </ul>	49,670
2	Field Work and Travel	7300
3	Contingency	10,000
	Total	66,970

Amount (Rs)

Expenditure towards equipment

49,670.00

Thanking you,

Head on the corporation Er

TTAPATITULERE '

K SUNITHA

#### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 28th March 2022

To

The Secretary,

Sri Mittapalli College of Engineering,

Tummalapalem

Sir,

Sub: Requested for Sanction of budget Rs. 66,250.00 under In-house R & D – Reg.

This is to bring to your kind notice that, the project entitled "SECURE IOT PLATFORM FROM FOR INDUFTRIAL CONTROL SYSTEMS" is approved as In-House R & D in the academic year 2021-2022. Here we are submitting the estimated cost along with required equipment to carry out the project.

S.No	Equipment	Estimated cost (Rs)
1	<ul> <li>Capacitor filter</li> <li>LCD display</li> <li>Arduino uno</li> <li>Sensor</li> <li>LM35 temperature sensor</li> <li>GPS</li> <li>GSM</li> <li>Heartbeat sensor</li> </ul>	49,670
2	Field Work and Travel	7300
3	Contingency	10,000
	Total	66,970

Hence, I request you to sanction the budget of Rs 66,970.00 (Rupees) under Research and Development fund. . As per our Research policy

Thanking you,

(Dr. P.V. NAGANHANEYULU)

SRI MITTAPALLI COLLEGE

OF ENGINEER THANK

Gunio (J.,

Date: 06-01-2022

TO

THE PRINCIPAL,
SRI MITTAPALLI COLLEGE OF ENGINEERING,
GUNTUR- 522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake – Reg Respected Sir,

It is here by to bring you kind notice that the final year students would like to undertake on research projects in academic year 2021-22 in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows:

S NO	NAME OF PROJECT	AMOUNT REQUIRED
1	IOT Based Fire Department Alerting System	1874.00
2	Smart and Automatic Drunken Drive Detecting System	10864.00
3	IOT Based Home Automation	1491.00
4	IOT Smart Based Agriculture System	2113.00
5	IOT Based Smart Parking with Auto- Blinking System	670.00
6	IOT Based Garbage Monitoring System	2018.00
	Total:	19030.00

Thanking you sir,

Head of the Department

Head of the Department
Electronics & Communication Engineering
SREMITTAPALLI COLLEGE OF ENGINEERING
TSIMMALAPALEM, NH-16, GUNTUR.

Dr. P.V. NAGANJANEYULU

PRINCIPAL

OF ENGINEERING TUMMALAPALEM, NH-5 Guntur (Dt.), A.P. Pm: 524 233

Date: 66 01 22

16. MC programming

To

The Head of the Department,

Department of ECE,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Budget Proposal for In-House B.Tech Project Completion - Reg

We, the 4th year 2 nd semester students of department of electronics and communication engineering, as part of course work it is mandatory to complete the project work. In order to full fill this as per the directions of Project Review Committee the following topic is selected.

Name of the Topic: Tot Based fire department alerting System.

Requirements:

1. Arduino Uno R3

2. Esp8266 wifi module.

3. PIR sensor module

4. LCD display

5. Crystal Oscillator

6. Resistors

8. Transistors

u. PCB

12. LED'S

7. Capacitors

14. Push button. 15 Arduino 1. Compiler

9. Cables. & Connectors

. 10. dioder

13. Transformer Adapter

Budget Proposed & 1874=00 Signature of the Students:

1) Y. Vineetha - 18091A04U6

2) K. Sailoja / - 18 U 9 1 AO 420 3) D. Ged - 18 U 9 1 AO 410 4) CH. 1882hna - 19 U 9 5 AO405

Drapagoo

(Dr. P.V. NAGANJANEYULU)

PRINCIPAL

Sri mittapalli college of engtheerting

TUMMALAPALEM, NH-5 Guntur (Dt.), A.R Pin : 622-238

Head of the Department Head of the Department Electronics & Communication Engineering SRI MITTAPALLI COLLEGE OF ENGINEERING TUMMALAPALEM, NH-16, GUNTUR

Guntur, Date: 06 | 01 | 2022

TO
THE PRINCIPAL,
SRI MITTAPALLI COLLEGE OF ENGINEERING,
GUNTUR- 522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake – Reg Respected Sir,

It is here by to bring you kind notice that the final year students would like to undertake on research project on "IOT Based Fire Department Alerting System " in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows:

.No	Material Required	Amount Required
	Adriano UNO R3	599
1	Adriano divo ko	190
2.	ESP8266	190
3	Sensor Module	90
4	LCD Display	350
5	Crystal Oscillator	350
	Resistor	15
6	Capacitor	12
7	· (	12
8	Diode	
9	LED	10
10	Cables & Connectors	45
11	PCB	80
	Transformer	160
12	(ransionne)	10
13	Push Buttons	
	Tota	al: 1874.00

Thanking you sir,

(DIPVINAGAN JANEYULU)

SRI MITTAPALLI COLLEGE OF ENGINEERING

TUMMALAPALEM NH-5 Guntur (Dt.), A.P. Pin : 522 233 Yours Singerely,

Head of the Department
Electronics & Communication Engineering
SRI WITTAPALLI COLLEGE OF ENGINEERING
TUMMALADALESS AND AND ADDRESS AND ADD

TUMMALAPALEM, NH-16, GUNTUR.

. . . . .

Date: 06 01 22

То

The Head of the Department,

Department of ECE,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Budget Proposal for In-House B.Tech Project Completion - Reg

We, the 4th year 2 nd semester students of department of electronics and communication engineering, as part of course work it is mandatory to complete the project work. In order to full fill this as per the directions of Project Review Committee the following topic is selected.

Name of the Topic: Smort and Automatic Drunken Driven Detecting System

Requirements: 1. Hardware Specifications 10. Transistors 19. IC Sockets 2. Raspbeny pis 11. Cables & connectors 20. Software 3. Alcohol sensor 12. Diodes specifications. 4. GSM module 13. PCB and Breadboards 5. Dd Motor 14 LED LCD Display 15. Transformer/Adapter 16. PWh buttons 7. Resistors 17. Switch

18. IC

**PRINCIPAL** SRI MITTAPALLI COLLEGE OF ENGINEERING

T! MMALAPALEM, NE-5 Gantur (Ut.), A.P. Pro : 522 753

Head of the Department Electronics & Communication Engineering SRI MITTAPALLI COLLEGE OF ENGINEFRING TUMMALAPALEM, NH-16, GUNTUR. TO
THE PRINCIPAL,
SRI MITTAPALLI COLLEGE OF ENGINEERING,
GUNTUR- 522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake – Reg Respected Sir,

It is here by to bring you kind notice that the final year students would like to undertake on research project on "Smart and Automatic Drunken Drive Detecting System" in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows:

S. No	oject. The details of the material at Material Required	Amount Required
1	RASPLERRY PI 3	10.000
2	ALCHOL SENSOR	120
3	GSM MOTOR	15
4	DC MOTOR	20
5	LCD DISPLAY	260
6	RESISTOR	15
7	CAPACITOR	12
8	TRANSFORMER	160
9	CABLES & CONNECTORS	45
10	DIODES	12
11	PCB	80
12	BREAD BUTTONS	80
13	PUSH BUTTONS	10
	SWITCHS	10
14	IC SOCKETS	15
15	LED	40
16	TOA	1: 10864.00

Thanking you sir,

(Dr. P.V. NAGANJANEYULU)

PRINCIPAL

SRI MITTAPALLI COLLEGE

OF ENGINEERING TUMMALAPALEM, NH-5

Guntur (Dt.), A.P. Pm : 522.733

Yours Sincerely,

Head of the Department
Electronics & Communication Engineering
SHAHTTAPALLI COLLEGE OF ENGINEERING
TUMMALAPALEM, NH-16, GUNTUR.

Date: 6/01/22

To

The Head of the Department,

Department of ECE,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Budget Proposal for In-House B.Tech Project Completion - Reg

We, the 4th year 2 nd semester students of department of electronics and communication engineering, as part of course work it is mandatory to complete the project work. In order to full fill this as per the directions of Project Review Committee the following topic is selected.

Name of the Topic: Tot based Home Auto nation.

Requirements:

1. Atmegationtroller

2. Esp8266 wifimodule

3. LCD display

4. Dc Cooling

5. Relay driver ic

7. Vtg. Regulator IC

Budget Proposed:

8. Resistors

9. Capacitors

10 Transictors

11. Cables & Connectors

12 diodes

13. PCB & bread boards

4.LED

15. Transformer Adapter

16. push buttons

18. Swith

19. Ic Sockets.

a. lampe

21, Ardulno Compiler

23. JOTGerko,

Signature of the Students:

1) B. Teenend - 18091A0403

2) V. Sousjanya Reddy - 18091A0443

3) B. Svinkarth - 1849 FAO401

4) t. Karthik - 1809 1A0427

PRINCIPAL SRI MTTTAPALLI COLLEGE

OF ENGINEERING TraMALAPALEM, NH-5 Guntur (Dt.), A.P. Pin : 522 :33 Head of the Department

Head of the Department Electronics & Communication Engineering SRI WILL TAPALLI COLLEGE OF ENGINEERING TUMMALAPALEM, NH-16, GUNIUR. TO THE PRINCIPAL, SRI MITTAPALLI COLLEGE OF ENGINEERING, GUNTUR- 522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake – Reg Respected Sir,

It is here by to bring you kind notice that the final year students would like to undertake on research project on "IOT.Based Home Automation" in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows:

. No	Material Required	Amount Required
1	Atmegate controller	280
2	ESP8266 WIFI MODULE	190
3	LCD DISPLAY	260
4	DC COOLING FAN	120
5	RELAY	20
6	- RELAY DRIVER IC	30
7	VOLTAGE REGULATOR	30
8	RESISTOR	18
9	CAPACITORS	15
10	TRANSISTORS	10
11	CABLES & CONNNECTORS	45
12	РСВ	80
13	BREAD BOARDS	80
14	LED	40
15	DIODE	15
16	TRANSFORMER	160
17	* PUSH BUTTONS	10
18	ĹC	18
19	SWITCH	10
20	LAMPS	45
21	IC SOCKETS	15
	TOTAL:	1491.00

Thanking you sir,

(Dr. F.V. NAGANJANEYULU)

PRINCIPAL \*

SRI MITTAPALLI COLLEGE OF ENGINEERING

TUMMALAPATEM No.-5
Guntur (DL.), A.M. Phi. Cock 233

Yours Sincerely,

Head of the Department

Electronics & Communication Engineering SKI WITTAPALLI COLLEGE OF ENGINEERING TUMMALAPALEM, NH-16, GUNTUR.

Date: 06 01 29

To

The Head of the Department,

Department of ECE,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Budget Proposal for In-House B.Tech Project Completion - Reg

We, the 4th year 2 nd semester students of department of electronics and communication engineering, as part of course work it is mandatory to complete the project work. In order to full fill this as per the directions of Project Review Committee the following topic is selected.

Name of the Topic: 10T Smart Based Agriculture System

#### Requirements:

- 1. NodeMcuEsp8266
- 2. Soil Moisture sensor
- 3. DHTII SENSOY
- 4. DS18B20 waterproof Temperature Sensol Probe
- 5. LDR
- 6. Submersible Miniwater pump

TO 12 VL EDStrip Budget Proposed: 2:113/

Signature of the Students:

1) M. Naga Jyothi - 19095A0416. 2) J. Naga Jyothi - 19095A0410.

Sumanth - 19095A0407

8. 7805 voltage regulator
9. 2×TIP122 Transistor

10. Resistor Ly. 7k, lok)

11. capacitor (oiluf, 1047)

SRI MITTAPALLI COLLEGE OF ENGINEERING

TUMMALAPALEM, NH-5 Guntur (Dt.), A.P. Pin : 522 . & Head of the Department

Head of the Department Electronics & Communication Engineering SREWHETAPALLI COLLEGE OF ENGINEERING TUMMALAPALEM, NH-16, GUNTUR

Date: 06 (1 /m

TO THE PRINCIPAL, SRI MITTAPALLI COLLEGE OF ENGINEERING, GUNTUR- 522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake – Reg Respected Sir,

It is here by to bring you kind notice that the final year students would like to undertake on research project ion "IOT Smart Based Agriculture System" in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The

details of the material and amount required are as follows:

S. No	Material Required	Amount Required
1	Node MCUESP8266	450
2	Soil Moisture sensor	250
3	DHT II Sensor	150 .
4	DSI8B20 WATER PROOF TEMPRETURE SENSOR PROE	3E 160 ·
5	· I LDR	160
6	Submersible Mini water pun	np 450 .
7	12 VLED strip	150
8	7805 voltage	250
9	2XTI PI22 Transistor	60
10	Resistor	18
11	Capacitor	15
<b>i</b>	TC	DAL: 2113.00

Thanking you sir,

(Dr. P.V. NAGANJANEYULU)

PRINCIPAL

SRI MITTAPALLI COLLEGE

of engineering

THRIMALAPALEM NO -5 Guntur (BC), A.P. Pin . 022 233

Yours Singerely,

(MOD)

Head of the Department Electronics & Communication Engineering SRI MITTAPALLI COLLEGE OF ENGINEFING TUMMALAPALEM, NH-16, GUNTUR.

Date: 06 01 22

To

The Head of the Department,

Department of ECE,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Budget Proposal for In-House B.Tech Project Completion - Reg

We, the 4<sup>th</sup> year 2 <sup>nd</sup> semester students of department of electronics and communication engineering, as part of course work it is mandatory to complete the project work. In order to full fill this as per the directions of Project Review Committee the following topic is selected.

Name of the Topic: Tot based Bonark Parking with auto-blinking system.

Requirements:

1. Node MCU ESP826

2. IR Sensors

3. Servo motor

4. Adafnuit 20.

Budget Proposed: Q, 670 /

Signature of the Students:

1) P. V. Prathywha

- 189495A0422

2) P.L.N.S. Prasanna

- 18691A0423

3) G. Naga

- 18U9/A0411

4) Ste. Wester -

1809/A0436

Project Guide

(Dr. P.V. NAGANJANEYULU)

**PRINCIPAL** 

SRI MITTAPALLI COLLEGE OF ENGINEERING

TUMMALAPALEM, NH-5 Guntur (Dt.), A.P. Pin t 522 253 Head of the Department

Head of the Department

Electronics & Communication Engineering SRIMH IAPALLI COLLEGE OF ENGINEERING TUMMALAPALEM, NH-16, GUNTUR

Guntur,
Date: 6 of w

TO
THE PRINCIPAL,
SRI MITTAPALLI COLLEGE OF ENGINEERING,
GUNTUR- 522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake – Reg Respected Sir,

It is here by to bring you kind notice that the final year students would like to undertake on research project on "IOT Based Smart Parking with Auto-Blinking System" in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows:

S. No	Material Required	Amount Required
1	Node MCUESP826	190
2	IR Sensor	80
3	Servo Motor	400
	Total:	670.00

Thanking you sir,

Yours Sincerely,

Head of the Department
Electronics & Communication Engineering
SHI MITTAPALLI COLLEGE OF ENGINEERING
TUMMALAPALEM, NH-16, GUNTUR.

(D. P.V. NAGANJANEYULU)

PRINCIPAL

SRI MITTAPALLI COLLEGE

OF ENGINEERING

TUMMALAPAI FAN NIG.5

GUNTUR (DL.), A.P. P.M.: 922 233

Date: 06 01 22

To

The Head of the Department,

Department of ECE,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Budget Proposal for In-House B.Tech Project Completion - Reg

We, the 4<sup>th</sup> year 2 <sup>nd</sup> semester students of department of electronics and communication engineering, as part of course work it is mandatory to complete the project work. In order to full fill this as per the directions of Project Review Committee the following topic is selected.

Name of the Topic: 107 Based Garbage Monitoring System

Requirements:

1. wires

6. Trash Can/Dumpsters

D. LCD display

7. Ik resistors

3. Bread board

HC-SROY ultrasonic sensor

4. Ardvino uno

9. AVR microcontroller

5. ESP8266 wifi module

Budget Proposed: & 2018

Signature of the Students:

- D. keerthi chandana 18091 AOUO8
- 5k. Baji munnisha Begum 18091A0430
- 3) K- Somianaya 18091AO417
- 4) M. Shiramya 19495AD417

OF ENGINEERING

TI WALAPALEM NES Guntur (Dt.), A:P. Par : back 238. Head of the Department

Head of the Department Electronics & Communication Engineering SHI MITTAPALLI COLLEGE OF ENGINEFINAG TUMMALAPALEM, NH-16, GUNTUR.

Guntur, Date:

TO .
THE PRINCIPAL, |
SRI MITTAPALLI COLLEGE OF ENGINEERING,
GUNTUR- 522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake – Reg Respected Sir,

It is here by to bring you kind notice that the final year students would like to undertake on research project ion "IOT Based Garbage Monitoring System" in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows:

S. No	Material Required	Amount Required
1	Wires	100
2	LCD Dis[play	150
3	Beard Board	70 .
4	<sup>1</sup> Ardiuno UNO	400
5	ESP8266 wifi module	600
6	Trash Can / Dumpstrs	500
7	Resistor	18
8	Ultrasonic sensor	90
9	. AVR Microcontroller	90
	TOTAL:	2018.00

Thanking you sir,

Guntur,

TO
THE PRINCIPAL,
SRI MITTAPALLI COLLEGE OF ENGINEERING,
GUNTUR- 522233.

Yours Sincerely,

Head of the Department
Electronics & Communication Engineering
SKIGHTTAPALLICOLLEGE OF ENGINEERING
TUMMALAPALEM, NH-16, GUNTUR.
Date:

(D. P.V. NAGANJANEYULU)

SRI MTTTAPALLI COLLEGE OF ENGINEERING T' NIMALAPALEM, NH-5

Suntur (Dt.), A:P: Pin : 522 233

Date:15-02-2022

TO

THE PRINCIPAL, SRI MITTAPALLI COLLEGE OF ENGINEERING, GUNTUR-522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake - Reg Respected Sir,

It is here by to bring you kind notice that the final year students would like to ... undertake on research projects in academic year 2021-22 in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows:

S NO	NAME OF PROJECT	AMOUNT REQUIRED
1	Design and fabrication of manually operated washing machine by using bicycle	5500.00
2	Wide 3 Wheel Steering System Chassis	7933.00
TOTA	L:	13433.00

Thanking you sir,

Mead of Department Mechanical Engineering Sri Mittapalli College of Engineering

Tummalapalem, NH-16, Guntur-522 233.

SRI MITTAPALLI COLLEGE

OF ENGINEERING

TUMMALAPALEM NE-5

Guntur (Dt.), A.F. His: 522 233

Date.15-02-22

To

The Head of the Department,

Department of Mechanical Engineering,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Budget Proposal for In-House B. Tech Project Completion - Reg

vear 2 nd semester students of department of We the Mechanical Engineering, as part of course work it is mandatory to complete the project work. In order to fullfill this as per the directions of project review committee the following topic is selected.

Name of the Topic: WIDE 3 WHEEL STEERING SYSTEM CHASSIS

#### Requirements:

DC Motor, Switch, Linkages, Supporting Rods, Mounts and Joints, Wheels, Shafts, Base Frame, Nuts and Bolts, Screws and Joints

Budget Proposed: 7933/-

Signature of the Students:

1) Sk. Magarushin — 18 U91A0 307. 2) P. Bhaskar — 18 U95A0 305 3) M. Nutar — 18 U91A0 304 4) Y. Oota Lalitha — 18 U91A0 310.

Project Guide

(Dr. P.V. NAGANJANEYULU) PRÍNCIPAL

SRI MITTAPALLI COLLEGE OF ENGINEERING TUMMALAPALEM MILS

Head of the Department

Head of Department Mechanical Engineering Sri Mittapalli College of Engineering Tummalapalen, NH-16, Guntur-522 233. To

The Principal,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub! Requesting for the Budget Proposal for the Research Project

undertake - Reg

Respected Sir,

It is here by to bring you kind notice that; the final year students would like to undertake one research project on Wide 3 Wheel Steering System Chassis in our college.On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows;

S.No	Material Required	Amount Required
1	DC Motor	3255.00
.2	Switch, Linkages	625.00
3	Supporting Rods, Mounts and Joints	1428.00
4	Shafts, Wheels ,Screws and Joints	2625.00
	Base Frame	1
	Nuts and Bolts	

TOTAL AMOUNT=7933.00

Thanking you sir,

tlead of Department Mechanical Engineering
Sri Mittapalli College of Engineering

Tommelapalem, NH-16, Guntur-522 233.

PRINCIPAL SRI MITTAPALLI COLLEGE OF ENGINEERING TUMMALAPALEM, NH-5 Guntur (Dt.), A:P. Pin : 522 233 To

The Head of the Department,

Department of Mechanical Engineering,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Budget Proposal for In-House B.Tech Project Completion - Reg

year 2 nd semester students of department of Mechanical Engineering, as part of course work it is mandatory to complete the project work. In order to fullfill this as per the directions of project review committee the following topic is selected.

Name of the Topic: DESIGN AND FABRICATION OF MANUALLY OPERATED WASHING MACHINE BY USING BICYCLE

Requirements: bicycle, mesh wheel, water tank

Budget Proposed: 5500/-

Signature of the Students:

- 1) P. prababet Rat 19095 A0306. 2) G. Sai Kumar. 19095 A0 308. 3) Ch. Siva Sai 19095 A0302 4) M. deelip Sai Komon 1809/A0306.

Project Guide

OF ENGINEERING

TUMMALAPALEM, NH-5 Guntur (Dt.), A.P. Pin: 522 233

Sri Mittapalli College of Engineering Tummalapalem, NH-16, Gustur-522 233.

Date.15-02-2022

To

The Principal,

Sri Mittapalli College of Engineering,

Guntur-522233...

Sub: Requesting for the Budget Proposal for the Research Project

undertake - Reg

Respected Sir,

It is here by to bring you kind notice that; the final year students would like to undertake one research project on Design and fabrication of manually operated washing machine by using bicycle in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows;

S.No	Material Required	Amount Required
1	bicycle	2750.00
2	mesh wheel	1400.00
3 .	water tank	1350.00

TOTAL AMOUNT=5500.00

Thanking you sir,

(HOD) Mechanical Lityme Civile

Sri Mittapalli College of Engineering Turamalapalem, NH-16, Guntur-522 233,

(Dr. P.V. NAGANJANEYULU)

PRINCIPAL

SRI MITTAPALLI COLLEGE

OF ENGINEERING

TUMMALAPALEM NH-5

Guntur (Dt.), A.P. Par 2522 233

Date: 06-01-2022

TO

THE PRINCIPAL, SRI MITTAPALLI COLLEGE OF ENGINEERING, GUNTUR- 522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake – Reg Respected Sir,

It is here by to bring you kind notice that the final year students would like to undertake on research projects in academic year 2021-22 in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows:

S NO	NAME OF PROJECT	AMOUNT REQUIRED
1	EXPERMENTAL STUDY ON BIM MODELLING OF RAILWAY BRIDGE (2022)	6500.00
2	EXPERMNETAL STUDY ON GREEN SCHOOL CONSTRUCTION	4500.00
3	EXPERMENTAL STUDY OF DESIGN OF MULTISTORED BUILDING	5000.00
	TOTAL:	16000.00

Thanking you sir

(Dr. P.V. NAGANJANEYULU)

PRINCIPAL

SRI MITTAPALLI COLLEGE

OF ENGINEERING

THMMALAPALEM, NH-5 Guidul Aden and Phile Sale 238 Head of the Department

Head of the Department

Department of Civil Engineering
Sri Mittapalli College of Engineering

NH-16, TUMMALAPALEM.

Guntur (Dt.), A.P., Pin: \$22 / 1/1.

To

The Head of the Department.

Department of Civil Engineering,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Budget Proposal for In-House B.Tech Project Completion - Reg

We the 4<sup>th</sup> year 2 <sup>nd</sup> semester students of department of Civil engineering, as part of course work it is mandatory to complete the project work. In order to fullfill this as per the directions of project review committee the following topic is selected.

Name of the Topic: EXPERMNETAL STUDY ON GREEN SCHOOL CONSTRUCTION.

Requirements: CEMENT, SAND, AGGREGATRES, PLASTIC, WOOD, CONTAINERS

**Budget Proposed:** 

CEMENT, SAND, AGGREGATRES = 2000

PLASTIC, WOOD, CONTAINERS =2500

Signature of the Students:

19095 A0 107

1809 1A0104

1809 1A0 103

1809 120110

18091A0107

PRINCIPAL

SRI MITTAPALLI COLLEGE of engineering

T: WMALAPALEM, NH-5 t. itur (Dt.), A.H. Pm : 822 2331 Head of the Department

is artinent of Civil Engineering Sc. Mittepalle Cellege of Engineering NH-15. TURREDLOPALENI. Junta (1 1 1 2 1 2 2 232 )

Date. 21-01-22

To

The Principal,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake – Reg

Respected Sir,

It is here by to bring you kind notice that;the final year students would like to undertake one research project on "EXPERMENTAL STUDY ON BIM MODELLING OF RAILWAY BRIDGE" in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows;

S.No	Material Required	Amount Required
1	CONCRETE, STEEL, FRAME	3000
2	CAST IRON, WOOD	3500

Thanking you sir,

Yours Sincerely,

iteal A (HOD) syng hims

(Dr. P.V. NAGANJANEYULU)

SRI MITTAPALLI COLLEGE

OF ENGINEERING
TUMMALAPALEM, NH-5

Guntur (Dt.), A.R. Pin : back 133

To

The Head of the Department,

Department of Civil Engineering,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Budget Proposal for In-House B.Tech Project Completion - Reg

We the 4<sup>th</sup> year 2 <sup>nd</sup> semester students of department of Civil engineering, as part of course work it is mandatory to complete the project work. In order to fullfill this as per the directions of project review committee the following topic is selected.

Name of the Topic: EXPERMENTAL STUDY OF DESIGN OF MULTISTORED BUILDING.

Requirements: CONCRETE, STEEL, FIBER

= 2000

**Budget Proposed:** 

CONCRETE, STEEL = 3000

FIBER

Signature of the Students:

M. Mohamin. - 1909 5 Ao 107

2) B. Jenham - 18 vg 1,40102

- 19095AOII

4) S. Nos. Sanded - 1849 1A0 109

5) 1.5. garsts - 19095A0112

Project Guide

(Dr. P.V./NAGANJANEYULU)

Principal Brī Mittapallī Göllege Öf engineehing

THININALAPALEN, 1919 THININALAPALEN, 1919 THININALAPALEN, 1919 Head of the Department
Department of Civil Engineering
Sti Mittapalli College of Engineering
NH-16, TUMMALA PALE: VI.
Guntur (Dt.), A.P., Pin: 522 233

Date. 21-01-22

To

The Principal,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake – Reg

Respected Sir,

It is here by to bring you kind notice that; the final year students would like to undertake one research project on "EXPERMNETAL STUDY ON GREEN SCHOOL CONSTRUCTION" in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows;

S.No	Material Required	Amount Required
1	CEMENT, SAND,AGGREGATRES	2000
2	PLASTIC, WOOD, CONTAINERS	2500

Thanking you sir,

(Dr. P.V. NAGANJANEYULU)

PRINCIPAL
SRI MITTAPALLI COLLEGE.
OF ENGINEERS

OF ENGINEERING TUMMALAPALEM, NH-5 Guntur (Dt.), A.P. Pin: 52, 233 Department of Civil Engineering
Sri Mittapalli College of Engine
NH-16. TUMMALA DAME

NH-16, TUMMALAPALÉM, Guntur (Dt.), A.P., Pin: 522 233. To

The Head of the Department,

Department of Civil Engineering,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Budget Proposal for In-House B.Tech Project Completion - Reg

We the 4<sup>th</sup> year 2 <sup>nd</sup> semester students of department of Civil engineering, as part of course work it is mandatory to complete the project work. In order to fullfill this as per the directions of project review committee the following topic is selected.

Name of the Topic: STABILIZATION OF SUB GRADE SOIL BY USING PLASTIC WASTE

Requirements: SAND, AGGREGATES, PLASTIC WASTE MATERIALS

**Budget Proposed:** 

SAND, AGGREGATES: 2000

PLASTIC WASTE :4500

Signature of the Students:

1) M. NYA M. -

2) h. mai Weld -

3) A. Rodonal -

4) shorting

51 ch verblethi -

TUMMALAPALEM, NH-5
TUMMALAPALEM,

Date. 21-01-22

To

The Principal,

Sri Mittapalli College of Engineering,

Guntur-522233.

Sub: Requesting for the Budget Proposal for the Research Project undertake - Reg

Respected Sir,

It is here by to bring you kind notice that; the final year students would like to undertake one research project on "EXPERMENTAL STUDY OF DESIGN OF MULTISTORED BUILDING" in our college. On this note, we request you to sanction the required amount for successful completion of the research project. The details of the material and amount required are as follows;

S.No	Material Required	Amount Required
1	CONCRETE, STEEL	3000
2	FIBER	2000

Thanking you sir,

(Dr. P/V. NAGANJANEYULU) **PRINCIPAL** 

SRI MITTAPALLI COLLEGE OF ENGINEERING

TUMMALAPALEM NE.5 Guntur (Dr.), A.P. Piic: 522 233 Yours Sincerely,

Head of the Department

Department of Civil Engineering

Guntur (Day)

# SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.

Voucher Type: Debit/Credit/J.V.

Rs. 68,450 (Rupees Sitt Eight Hasend for hundred and bitty towards N. Poa bhakasen & B. Noveley Kunner.

against Cq. No. / Cash Coll through Sri Mittapalli troust

Accountant

M. Kwykus\_\_\_ Cashier

N-Bro-Lever's Signature

## SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger	Name	(A/c.	,
		A- 3	

Voucher Type: Debit/Credit/J.V.

Rs. 68,450	(Rupees, Sixte	eight thoused for	shudled	and fifty
towards	Thomas &	DLoKShmi		
		through Sri 坑		

Accountant

eceiver's Signature

# SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST)
Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.)

Voucher Type: Debit/Credit/J.V.

Rs. 67,350 (Rupees Sixty Leven Harfand three Lich & fifty towards K. Indunation & St. & Maloibi against Cq.No./Cash through Sri Mittapalli Frust

Verit Accountant TURNY LUC

Receiver's Signature

# SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.)

Voucher Type: Debit/Credit/J.V.

Rs. 66,970 (Rupees Saty Six Honderd hine hundred berighty towards K-Smitha & S. Mozmika.

against Cq. No. / Cash Colling through Sri Mittapalli Tout

Accountant

Haylana Cashier

ver's Signature

# SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.) Voucher Type: Debit/Credit/J.V.

Rs. 1874/- (Rupees Gighten herdred Severty for Rupey My towards P. Sudhokor against Cq. No./Cash Coll through Sri Hittapelli Tout

Accountant

Maylee Cashier

Ceiver's Signature

# SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.)

Voucher Type: Debit/Credit/J.V.

Rs. 10864 (Rupees Ten thanker of Eight hundred fixts form towards K. Sunitha against Cq.No./Cash Call through Sri Milfapolli trust

Accountant

The KMelu-Cashier

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## SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST)
|Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.)

Voucher Type: Debit/Credit/J.V.

Rs. 1491 (Rupees fourteen hadred ninty one super only towards M. Parame Surva sa a against Cq. No. /Cash Coff through Sri Mittapalli Fourt

Accountant

Mrby Cashier

Receiver's Signature

# SRI MITTAPALLI COLLEGE OF ENGINEERI

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.) Voucher Type: Debit/Credit/J.V.

Rs. 2113 (Rupees Two Honsend on hundred and thirteen pupers towards loxusi Psaxosh against Cq.No./Cash Cosh through Sri I-Littapalli Toust

# SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.)

Voucher Type: Debit/Credit/J.V.

Rs. 670 (Rupees Six hundred Seventy super only.)
towards G. Siva Cankel
against Cq.No./Cash Colh through Sri Hittapalli Toust

Jai

tant tant Cashier

Receiver's Signature

Accountant

## SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.)

Voucher Type: Debit/Credit/J.V.

Rs. 2018 (Rupees Two thanked eighten super and)
towards CH. Szini Vasa Raw
against Cq.No./Cash Cash through Sri Hittapalli Tout

Accountant

H-sub-

Ch. Sinivase Roo Receiver's Signature

## SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.)

Voucher Type: Debit/Credit/J.V.

Rs. 6500 (Rupees Six thousand five hudred Ripey only towards A. Pavani against Cq. No./Cash Cosh through Sri Hittopalli Torest

Accountant

Cashier

eiver's Signature

# SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.) Voucher Type: Debit/Credit/J.V.

Rs. 4500 (Rupees fow they be higher our towards B. Vidya sigar
against Cq. No./Cash Cofts through Sri Mittapalli Truft

Countant Cashier

s Signature

# SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.)

Voucher Type: Debit/Credit/J.V.

Rs. 5000 (Rupees Five thanged Right and)
towards. D. Kisholi babi
against Cq. No./Cash Lash through Sri Mittapalli Tauft

Accountant

H-killu-Cashier

D. Kilhote Rabin Receiver's Signature

Voucher Type : Debit / Credit / LV

## SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Lougor Hamo (700)		Voucher Type . Debits Ofedits 0.4.		
Rs. 5500	Runees five	Harfeid	Eve handred	Riper and
towards & Y	an Kuun			······································

against Cq.No./Cash ... Caff ... through Sri . M. Hayall: Toust

Accountant

Ledger Name (A/c)

M-Kyle... Cashier

B. Kirm Kumar Receiver's Signature

# SRI MITTAPALLI COLLEGE OF ENGINEERING

(SPONSORED BY SRI MITTAPALLI TRUST) Tummalapalem, NH-16, GUNTUR - 522 223.

Ledger Name (A/c.)

Voucher Type: Debit/Credit/J.V.

Rs. 7933 (Rupees Seven Harry Mine hadred Hirty Horrestowards B. Yedu Kodola Raa against Cq. No./Cash Loff through Sri 1. Littapalli Trust

Accountant

M. Krichen Cashier Hedukudula SMO Receiver's Signature