



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

("ವಿಜಯ ಕರ್ನಾಟಕ ರಾಜ್ಯ" ಕೆ ಆರ್ ಡಿ ಯಲ್ಲಿ ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ)  
'ಜ್ಞಾನ ಸಂಗಮ', ಒಳಗಾವಿ - ೫೯೦ ೦೧೮ ಕರ್ನಾಟಕ ರಾಜ್ಯ

Visvesvaraya Technological University

(State University of Government of Karnataka Established as per the VTU Act, 1994)

"Jnana Sangama", Belagavi-590 018, Karnataka State, India

Prof. A. S. Deshpande B.E., M.Tech., Ph.D.  
REGISTRAR

Phone: (0831) 2498100  
Fax: (0831) 2405467

Ref: VTU/Aca./A4/2021-22/2631/13

Date: 12 0 SEP 2021

To,

The Principal,  
PES Institute of Technology & Management,  
NH-206, Sagar Road,  
Shivamogga-577204.

Sir,

Sub: Sanction of Financial Assistance for 2020-21 to the  
Innovative Project of UG Final Year students of your Institution..reg.  
Ref: No.VTU/BGM/PS/2021-22/545, dated 06.05.2021

With reference to the above subject, please find herewith a D.D Bearing No 643486, dated 09.09.2021 of Rs. 30,000/- (Rupees Thirty Thousand Only) towards the sanction of financial assistance to the selected Innovative projects of UG final year students of BE / B.Tech.

Further, you are hereby informed to distribute the amount to the concerned students and get an acknowledgement for the same.

Original copy of the acknowledgements should be submitted to the undersigned on or before 30th September 2021.

Encl: as above

HOD Dept. of EEE  
PESITM, SHIVAMOGGA-577 204

REGISTRAR  
18/9/21

Principal

PES Institute of Technology & Management  
NH 206, Sagar Road, SHIVAMOGGA-577204

- Adf  
- offer  
- to HOD/ESH, LSK, MK, KES, KEK

28/9

AWARD No. 470  
Department.....  
Date of inward Entered. 28/09/2021  
Sign of the Principal.....



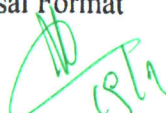


Visvesvaraya Technological University  
"JnanaSangama" Belagavi:  
590018  
Karnataka, India.  
Tele: 0831-2498225 ,2405454

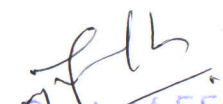
## VTU Sponsored Student Project Proposal Format

|    |                             |   |                                 |
|----|-----------------------------|---|---------------------------------|
| 01 | Academic Year :             | 2020-2021   |                                 |
| 02 | Semester :                  | 8TH   |                                 |
| 03 | Name of the College:        | PES INSTITUTE OF TECHNOLOGY AND MANAGEMENT ,<br>SHIVAMOGGA                                  |                                 |
| 04 | Branch:                     | ELECTRICAL AND ELECTRONICS  |                                 |
| 05 | Project Title:              | ADVANCED AGRICULTURAL CONTROLLING<br>AND MONITORING OF GREENHOUSE USING LI-FI<br>TECHNOLOGY |                                 |
| 06 | Project Discipline:         | AGRICULTURE   |                                 |
| 07 | Principal                   | Name:   | DR. CHAITHANYA KUMAR            |
|    |                             | Contact No:   | 9845346072                      |
|    |                             | Email id:   | principal_pesitm@pes.edu        |
| 08 | HOD                         | Name:   | DR.OM PRAKASH YADAV             |
|    |                             | Contact No:   | 8966000053                      |
|    |                             | Email id:   | hodeee@pestrust.edu.in          |
| 09 | Project Guide               | Name:   | MR. MANJUNATH PRABHU P          |
|    |                             | Contact No:   | 9663762777                      |
|    |                             | Email id:   | manjunathprabhu@pestrust.edu.in |
| 10 | Project Co-Guide(if<br>any) | Name:   | ---                             |
|    |                             | Contact No:   | ----                            |
|    |                             | Email id:   | ----                            |





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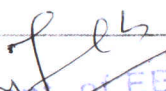
  
Principal

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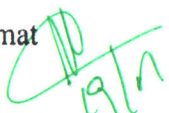
  
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|    |  |             |                       |
|----|--|-------------|-----------------------|
| 11 | Project Committee coordinator<br>(Identified by the college) : | Name:       | Dr. Basavarajappa Y H |
|    |  | Contact No: | 9242851012            |
|    |  | Email id:   | hodme@pestrust.edu.in |

|                                 |  |  |
|---------------------------------|--|--|
| 12                              | Name of project team Members   |  |
|                                 | <b>1 .Group leader and Member</b>  |  |
|                                 | Name: BHARGAV B SHANUBHOG  |    |
|                                 | USN No. 4PM17EE013   |  |
|                                 | Contact No: 6362416743   |  |
|                                 | Email id: bhargavshanubhog@gmail.com   |  |
|                                 | <b>2.Member</b>  |  |
|                                 | Name: APOORVA J R  |   |
|                                 | USN No.: 4PM17EE009  |  |
|                                 | Contact No: 7337875345   |  |
|                                 | Email id: apoorvajr1972@gmail.com  |  |
|                                 | <b>3 .Member</b>   |  |
|                                 | Name: MEGHANA S  |  |
|                                 | USN No: 4PM17EE024   |  |
|                                 | Contact No: 9110806783   |  |
|                                 | Email id: meghnamegha0610@gmail.com  |  |
| <b>4.Member</b>                 |  |  |
| Name: PRAJVAL S R               |  |  |
| USN No: 4PM17EE033              |  |  |
| Contact No: 9632388847          |  |  |
| Email id: prajwalsr27@gmail.com |  |  |
| USN No. .                       |  |  |
| Contact No:                     |  |  |
| Email id:                       |  |  |
| 13                              | Processing Fee Details   | Bank name : NA   |
|                                 |  | Branch : NA  |

  
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|    |   |   |
|----|---|---|
|    |   | DD number with date : NA<br><br>OR<br><br>Cheque no with date :   |
| 14 | Scope / Objectives of the project:  | Objectives of the project is<br><br>1. To improve products quality, as well as maintain a sustainable agriculture by collecting real-time data from the environment.<br><br>2. To create water saving irrigation technology for agriculture and security for the crops.<br><br>3. To make a remote control tasks like spraying, weeding, moisture sensing.<br><br>4. To implement technology in agriculture as a social concern.  |
| 15 | Methodology of work:<br>(Including diagram, flow chart and design calculations) | <p>Irrigation system that consists of a distributed wireless network of soil moisture temperature sensors deployed in plant root zones. Each sensor node involved a soil probe, a temperature probe, a microcontroller for data acquisition. The microcontroller the automated activation of irrigation when the threshold values of soil moisture temperature are reached. The microcontroller sends data to the computer via Li-Fi trans The receiver unit also has a duplex communication link using Light Fidelity technology is a new technology in optical wireless communication. The Internet connection allows t inspection in real time on a website, where the soil-moisture and temperature level graphically displayed through an application interface and stored in a database server access also enables direct programming of scheduled irrigation schemes and trigger the receiver according to the crop growth and season management.</p> <p><b>BLOCK DIAGRAM</b></p> <p>Fig 1:Block Diagram of Irrigation System-Transmitter system</p> |

*Handwritten signature in green ink*

Principal

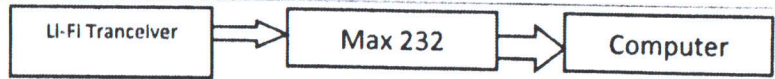


Fig 2:Block Diagram of Irrigation System-Receiver system

|    |  |   |
|----|--|---|
|    |  |   |
| 16 | Expected Outcome of the project:             | <ol style="list-style-type: none"> <li>1. Good quality of agriculture crops can be obtained and agriculture can be sust for longer period.</li> <li>2. Water can be saved more and crops can be protected well.</li> <li>3. Agriculture can be made easier than the conventional method.</li> </ol> |
| 17 | Application of the project :                 | <ol style="list-style-type: none"> <li>1)Security</li> <li>2)Cellular communication</li> <li>3)Augmented reality</li> <li>4)Underwater communication</li> </ol>   |
| 18 | Budget details with Materials required:      | <ol style="list-style-type: none"> <li>a) Materials / Consumables =5500.00</li> <li>b) Labour=1000</li> <li>c) Miscellaneous =1000.00</li> </ol> <p style="text-align: center;"><b>Total =7500.00</b></p>   |
| 19 | Date of commencement of the Project:         | 26/12/2020  |
| 20 | Probable date of completion of the project : | 26/07/2021  |


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*[Handwritten Signature]*

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|    |  |          |
|----|--|----------|
| 21 | Duration of project work :   | 8 MONTHS |
| 22 | Pert chart for completion of the project in said duration as per planned activities: |          |

| Sl.No | Activities Planned                 | 1 Month/ Week | 2 Month/ Week | 3 Month/ Week | 4 Month/ Week | 5 Month/ Week | 6 Month/ Week |
|-------|------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 01    | Literature review                  |               |               |               |               |               |               |
| 02    | Planning/ Designing                |               |               |               |               |               |               |
| 03    | Assembly/ Fabrication work         |               |               |               |               |               |               |
| 04    | Final Testing                      |               |               |               |               |               |               |
| 05    | Result & Calculation/ Conclusion   |               |               |               |               |               |               |
| 06    | Preparation of Report & Submission |               |               |               |               |               |               |

  
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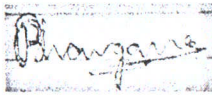
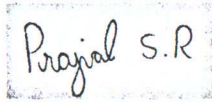
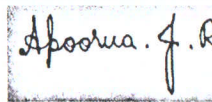
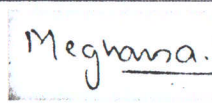


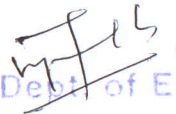
## DECLARATION BY THE STUDENTS

We, the project group members hereby declare that the details enclosed in the project proposal are true and correct to the best of our knowledge. We undertake to inform VTU, of any changes there in the project title, students name will be intimated immediately. In case, any of the above information is found to be false or untrue or misleading, we are aware that we may be held liable for it.


We are aware that the project group has to exhibit / demonstrate the project for evaluation in the VTU Regional centre and for exhibition at VTU, Belagavi. If the project group fails to attend the evaluation in Regional centre and for Exhibition in VTUBelagavi, the sponsored project amount will be returned back to VTU immediately

We also hereby, enclose the endorsement form to VTU, Belagavi.

| SL.No | Name of the Student    | Signature with date  |
|-------|------------------------|--|
| 01    | BHARGAV B<br>SHANUBHOG |  |
| 02    | PRAJVAL S R            |  |
| 03    | APOORVA J R            |  |
| 04    | MEGHANA S              |  |

-  
  
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# PES INSTITUTE OF TECHNOLOGY & MANAGEMENT

NH-206, Sagar Road, Shivamogga - 577 204 Karnataka, India

An ISO 9001 : 2008 Certified Institute

**PESITM**  
education for the new world

Affiliated to Visvesvaraya Technological University, Belgaum  
Approved by AICTE, New Delhi  
Recognised by Govt. of Karnataka

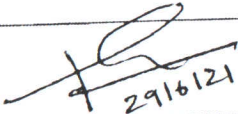
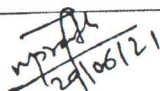
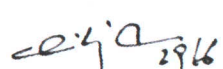
Telephone : 08182-640733/640734 Fax : 08182-233797  
E-mail : principal\_pesitm@pes.edu 08182 - 640732 (Dire)  
Website : pestrust.edu.in/pesitm

## ENDORSEMENT

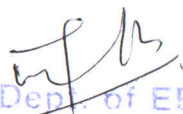
This is to certify that

- 1] BHARGAV B SHANUBHOG
- 2] PRAJVAL S R
- 3] APOORVA J R
- 4] MEGHANA S

Are bonafide students of Department in Electrical and Electronics Engineering of our institution. If the project proposal submitted by these students under VTU Sponsored Student Project Proposal is selected by VTU, we will provide the required laboratory / Computer / infrastructure support in our college / Institution. Further we also take necessary steps that the project group will exhibit / demonstrate their project in the Regional centre and for exhibition at VTU, Belagavi. If the student group fails to attend the evaluation in Regional centre and exhibition at VTU Belagavi, the supported project amount will be returned back to VTU immediately.

| Signature of Project Guide with date   | Signature of HOD with Seal and date   | Signature of the Principal with Seal and date  |
|--|---|--|
| <br>29/6/21 | <br>29/06/21 | <br>29/6                                |
| Name: Mr. Manjunath Prabhu P   | Name: Dr. Om Prakash Yadav<br>HOD Dept. of EEE  | Name: Dr. Chaitanya Kumar<br>Principal<br>PES Institute of Technology & Management<br>NH-206, Sagar Road, SHIVAMOGGA-577 204 |

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19/7

Principal  
PES Institute of Technology & Management  
NH 206, Sagar Road, SHIVAMOGGA-577 204.



Ref No/PESITM/EE/2021/0001

Date: 23<sup>rd</sup> June 2021

**PROCEEDINGS OF THE COMMITTEE FOR  
SELECTION OF PROJECTS**

The following are the minutes of meeting details which was held for the faculty members of the Electrical department in relation to the subject of "*Financial Assistance for Innovative Projects for the Final Year under Graduate students for the year 2020 – 2021*" on 23<sup>rd</sup> June 2021 at 10:15 am.

**Place of Meeting:** Seminar Hall.

**Minutes of Meeting:**

- The meeting has been started with the welcoming of all the committee members by the Institute Project Committee Coordinator under the chairmanship of the Principal, PESITM.
- Dr. Basavarajappa Y H; HOD/ME and Institute Project Committee Coordinator called this meeting in order to have an in depth discussion on the selection of innovative projects of the final year under graduate students to be sent to VTU for financial assistance.
- As per the requirements of the committee formation; two senior faculty members of the department Mr. Rudresha S J and Mr. Kiran Kumar G R were present in the meeting. All the modalities of selecting innovative projects from a group of all the final year under graduate students projects have been discussed in length by highlighting all the possible pro's and con's.
- At last, two projects have been unanimously finalized as the innovative projects to be sent to VTU for the financial assistance from the department level. The project title of the selected two projects are as follows:

- 1) *IOT Based Solar Powered Forest Fire Early Detection And Prevention With Anti-Smuggling System*
- 2) *Advanced Agricultural Controlling And Monitoring Of Greenhouse Using Li-Fi Technology*

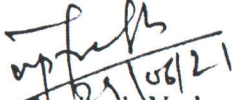
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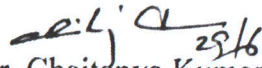
Principal

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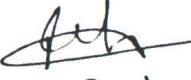

- HOD thanked all the committee members and concluded the meeting.

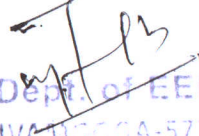
  
Dr. Omprakash Yadav.  
HOD / EEE

  
Dr. Basavarajappa Y. H.  
VTU Nominee (IPCC)

  
Dr. Chaitanya Kumar M V  
Principal, PESITM & Chairman (IPC)  
PES Institute of Technology  
NH-206, Sagar Road, SHIVAMOGGA-577 204

Copy to:

1. Mr. Rudresha S J (Member) - 
2. Mr. Kiran Kumar G R (Member) - 

  
HOD Dept. of EEE  
PESITM, SHIVAMOGGA-577 204

  
Principal  
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