







KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
Indian Institute of Science campus, Bengaluru

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Website: www.kscst.iisc.ernet.in/spp.html or www.kscst.org.in/spp.html

**FORMAT FOR STUDENT PROJECT PROPOSAL FOR THE
45th SERIES OF STUDENT PROJECT PROGRAMME**

1.	Name of the College: K.S. Institute of Technology
2.	Project Title: ANTI-POACHING DETECTION SYSTEM
3.	Branch: COMPUTER SCIENCE AND ENGINEERING
4.	Theme (as per KSCST poster): AUTOMATION OR NEW CONCEPT IN AGRICULTURE
5.	Name(s) of project guide(s): 1.Name: Prof. Dr. K Venkata Rao Email id: venkatarao@ksit.edu.in Contact No.: 9343751362
6.	Name of Team Members (Strictly not more than four students in a batch): Name: VIJAY N S USN No.: 1KS18CS115 Email id: vijaysingh13091999@gmail.com Mobile No.: 8095553691  Name: PULLUR PAVAN KUMAR USN No.: 1KS18CS074 Email id: pavankumar.pullur@gmail.com Mobile No: 9573588937  Name: NITISH KUMAR USN No.: 1KS18CS063 Email id: nitiesh.mr@gmail.com Mobile No.: 9901079662 

	<p>Name: SANDEEP KUMAR USN No.:1KS18CS087 Email id: sandeepkr2909@gmail.com Mobile No.:7004481701</p> 
7.	<p>Team Leader of the Project: Name: VIJAY N S USN No.: 1KS18CS115 Email id: vijaysingh13091999@gmail.com Mobile No.: 8095553691</p>
8.	<p>Processing Fee Details (Through Online Payment only): (processing fee of Rs. 1000/-) Please furnish the payment made details provided in the last page of this proposal.</p> <p>Note: (The student team shall furnish the details in the Google Form. It is informed to the students to 1) keep ready the project proposal and 2) make the payment made details for processing fees and 3) Enter the details in the Google Form on the same day of payment made to KSCST by NEFT / UPI payment).</p>
9.	<p>Date of commencement of the Project: 30th Oct 2021</p>
10.	<p>Probable date of completion of the project: 15th June 2022</p>
11.	<p>Scope / Objectives of the project:</p> <ul style="list-style-type: none"> ▶ The main objective of this project is to developing such a system which can be used to restrict this smuggling. Smuggling of sandalwood has created social economic and law and order problems in areas bordering in India. ▶ We are developing such a system which can be used to restrict this smuggling. ▶ In this system a novel method has been introduced to prevent the cut down of trees using wsn and blynk ▶ Tilt sensor is used to determine whether the tree is cut down or not similarly ▶ Fire sensor is used to determine whether the forest is on fire or not. ▶ This value will be constantly sent to cloud through wifi which can accessed using Blynk application.

FUTURE SCOPE

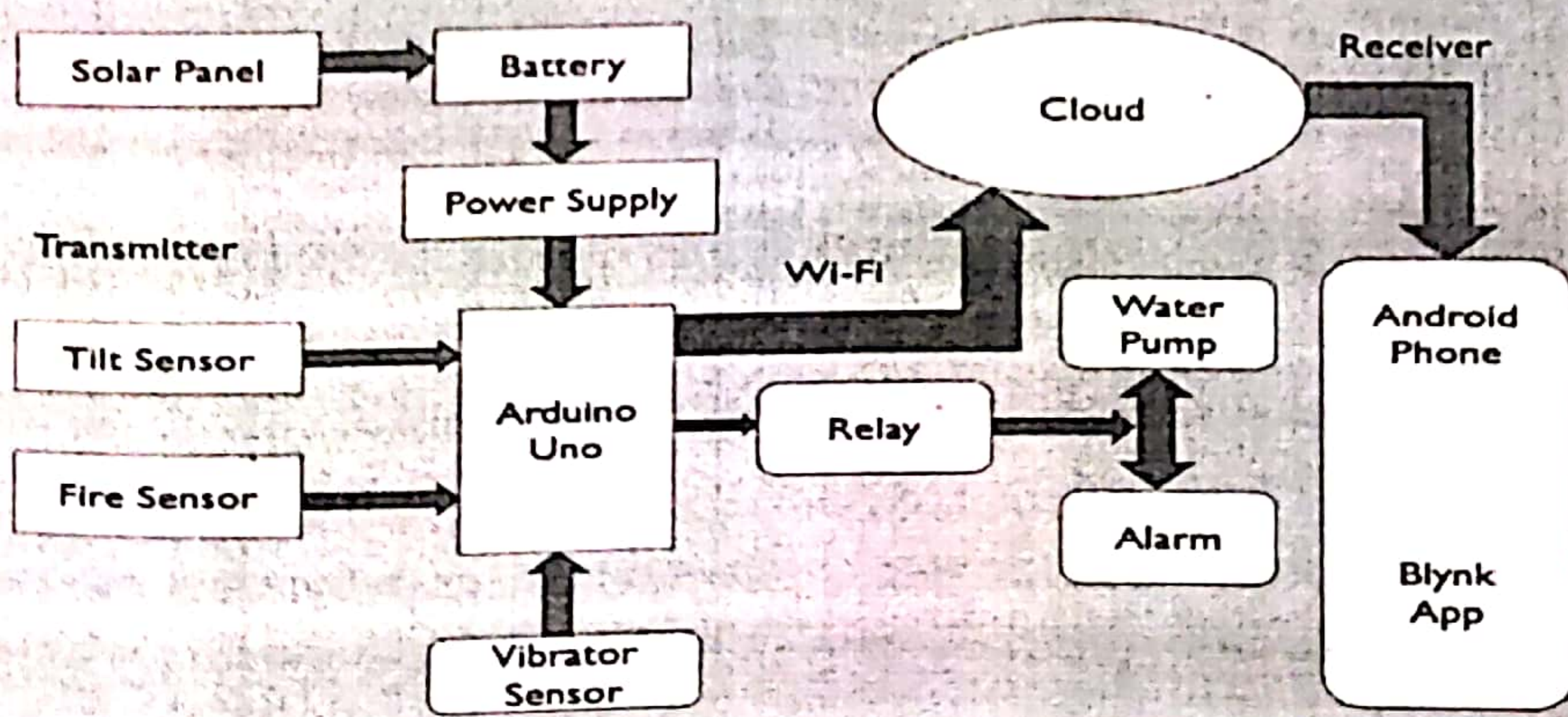
This project is IoT based and uses Wi-Fi technology. It can be further extended by adding mini solar chips at tree section so that transmitter part can work on rechargeable power.

Moreover a solar panel can also be installed at receiver part. IoT is the current trend in Government and corporate sector. Many big companies and industries are willing to move towards promoting of IoT. Government sectors many countries are planning to digitalization of endangered animals, like Welgevonden Game Reserve in South Africa have digitalized Rhinos from being poached using LoRa technology and IBM Watson IOT Cloud platform. Similarly many organizations are planning to digitalize valuable trees. In that case this project gives the best results by using LoRa technology, so that signals can be transmitted in kilometre's range, typically 10km.

12. Methodology:

In this proposed system, we have come up with a system based on IoT that can be used to avoid the smuggling of the trees and the events of forest fires which would stop the deforestation. It will consist of two modules one involving sensors and controller module which will be at tree spot and another one is Android Phone. Sensors includes Fire sensor, Tilt Sensor, Vibration Sensor. This will be mounted on trunk of each tree, capable of detecting theft as well as automatically initiate send alarm signals. They are interfaced with the Wi-Fi technology to the Blynk App server. This will convey the message to the monitor station and eventually to the control station and vice versa using wireless technology. With technology, we can also move to the betterment of the nature and surroundings around us to create a better place for everyone.

Block Diagram:



Note: In case of fabrication work in the project, an engineering drawing with dimensions / detailed design should be attached to the proposal.

13.	<p>Expected Outcome of the project:</p> <p>In this system we have given an idea to detect the fire in the forest by using modern equipment. The system is proposed to detect the fire in the forest and also to alert the forest officer about the fire in the forest.</p> <ul style="list-style-type: none"> • Here a microcontroller is used to control the system activities, some sensors are used to detect the fire in the forest, with detecting the fire the exact location of the fire is detected and located to the nearby forest officer. • So the system is a complete IoT based system where the activities of the system is continuously monitored and the monitoring details are stored in online pages which is viewed by the officer regularly. • The details are stored as a data and this data can be viewed at any time. • The solar panel with a battery is used to supply the source to the system. Since the system is designed to implement in the forest it not possible to provide power supply through transmission line hence a solar panel is used which can be charged and stored in a battery. It is given as source to the system. • The tilt sensor is used to know smuggling or cutting of the tree, the buzzer is used as a alarm to notify. • The GPS helps to find the exact location in the forest where the trees are being cut down.
14.	<p>Is the project proposed relevant to the Industry / Society or Institution?</p> <p>Yes / No: NO</p> <p>If Yes, please provide details of the Industry / institution and contact details:</p> <p>(Note: Preference will be given to those projects relevant to the industry / institution. Hence be specific in giving detailed information). Is the industry extending support - technology / funds / use the final product, please specify.</p>
15.	<p>Can the product or process developed in the project be taken up for filing a Patent?</p> <p>Yes / No: NO</p> <p>Prior Art search done?</p> <p>Yes/No: NO</p> <p>Note: If your answer is "Yes", you may contact Patent Information Centre of KSCST. For more details, email: pic@kscst.org.in</p>

16.	Budget details (break-up details should be given):	
	Note: KSCST will provide nominal grant support for carrying out the project by students if selected by the project selection committee.	
	Budget	Amount
	a) Materials / Consumables (Please specify)	
	HARDWARE REQUIREMENT:	
	➤ Arduino UNO	1000.00
	➤ Wi-Fi Module (Node MCU)	600.00
	➤ Relay	900.00
	➤ Water Pump	300.00
	➤ Buzzer	100.00
➤ Tilt Sensor	300.00	
➤ GPS module	900.00	
➤ Fire Sensor	400.00	
	➤ Vibration Sensor	300.00
	➤ Solar Panel	400.00
	SOFTWARE REQUIREMENT:	
	➤ Arduino IDE	0.00
	➤ Blynk Application	0.00
	b) Labor (Describe)	0.00
	c) Travel (Describe)	400.00
e) Miscellaneous	100.00	
	Total	5700.00
17.	Any other technical details (Please specify):	
	N/A	

18.

SPP Coordinator (Identified by the college):

Note: To be identified by the principal of the institution. The project proposals must be submitted to KSCST through SPP coordinator designated by the principal.

Name: Dr. Sudarshan

Email id: sudarshan.bellary@gmail.com

Contact No.: 8867606994

Name of the Project Guide: Dr. K. VENKATA RAO

Email id: venkatarao@gmail.com

Contact No.: 9343751362

**Name of the HOD: Dr. REKHA B
VENKATAPUR**

Email.id: rekhabvenkatapur@ksit.edu.in

Contact No.: 9740295819

DECLARATION

(From Project Students)

We, the project team hereby declare that the details enclosed in the project proposal Anti-Poaching Detection System Branch: Computer Science College: K.S. Institute of Technology are true and correct to the best of our knowledge and belief and we undertake to inform KSCST of any changes therein in the project title, students name will be intimated immediately through project guide. 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 hereby authorize sharing of the project information with this project proposal with the Karnataka State Council for Science and Technology, Bengaluru.

We are aware that the project team must exhibit / demonstrate the project in the nodal centre and interact regarding project with the experts and to exhibit the project in the State Level Seminar and Exhibition (if selected). If the student team fails to attend the evaluation in nodal centre or fails to attend the State Level Seminar and Exhibition, the supported project amount will be returned to KSCST.

We also hereby, enclose the endorsement form to KSCST, Bengaluru.

Name of the students with USN No.

- | | |
|-----------------------|------------|
| 1. VIJAY N S | 1KS18CS115 |
| 2. PULLUR PAVAN KUMAR | 1KS18CS074 |
| 3. NITISH KUMAR | 1KS18CS063 |
| 4. SANDEEP KUMAR | 1KS18CS087 |

Signature with date

Vijay
Pav
Nitish
Sandeep Rs

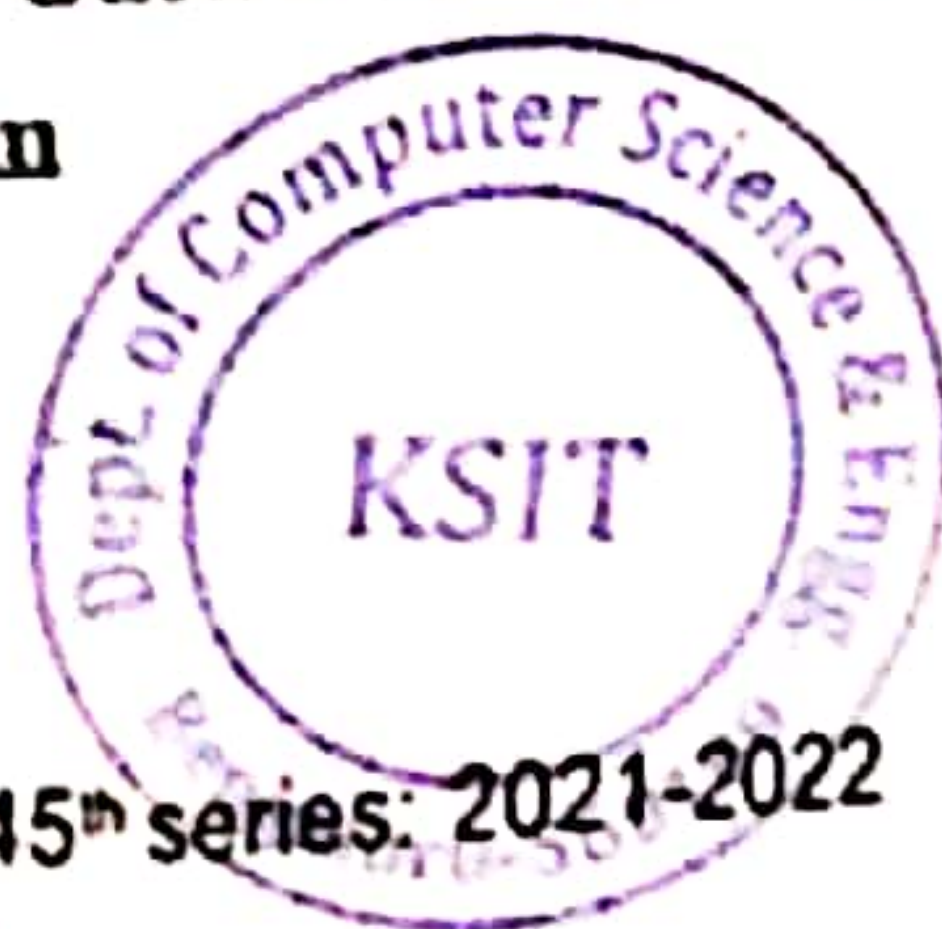
Dr. K. VENKATA LAO

K. Venkata Rao
21/1/22

(Name & Signature of Project Guide with Seal)

Email Id: venkatarao@gmail.com

Contact No.: 9343751362



KSCST: Student Project Programme: 45th series: 2021-2022

Rekha Venkatapur
21/1/22

(Name & Signature of HOD with Seal)

Email Id: rekhabvenkatapur@ksit.edu.in

Contact No.: 9740295819

Head of the Department
Dept. of Computer Science & Engg.
K.S. Institute of Technology
Bengaluru - 560 109

ENDORSEMENT

(From College, endorsement to be taken in the Institution / Department Letter head)

(To scan this page and enclose in the project proposal)

This is to certify that 1) Mr. Vijay N S 2) Mr. Pullur Pavan Kumar 3) Mr. Nitish Kumar 4) Mr. Sandeep Kumar are bonafide student(s) of Department of Computer Science and Engineering in the degree program of our institution. If the project proposal submitted by these students under the 45th series of Student Project Programme is selected by KSCST, we will provide the requisite laboratory / Computer / infrastructure support in our college / Institution. Further we also take necessary steps to see that the project team will exhibit / demonstrate their project in the nodal centre and in the State Level Seminar and Exhibition (if selected). If the student team fails to send the completed project report or fails to attend the evaluation in nodal centre or fails to attend the State Level Seminar and Exhibition, the supported project amount will be returned to KSCST.

Dr. K. VENKATA RAO
[Signature]
21/1/22

(Name & Signature of
Project Guide with Seal)

Email.id:

venkatarao@gmail.com

Contact No.: 9343751362

[Signature]
21/1/22

(Signature of HOD with Seal)
Head of the Department
Dept. of Computer Science & Engg.
K. S. Institute of Technology
Bengaluru - 560 109
Email.id: rekhabvenkatapur@ksit.edu.in

Contact No.: 9740295819

[Signature]
21/1/22

(Signature of the Principal
with Seal)
PRINCIPAL

K. S. INSTITUTE OF TECHNOLOGY
Bengaluru - 560 109
Email.id: principal.ksit@gmail.com

Contact No.: 080-28435722

KSCST: Student Project Programme: 45th series: 2021-2022




DETAILS OF PROCESSING FEES MADE THROUGH NEFT / UPI PAYMENT

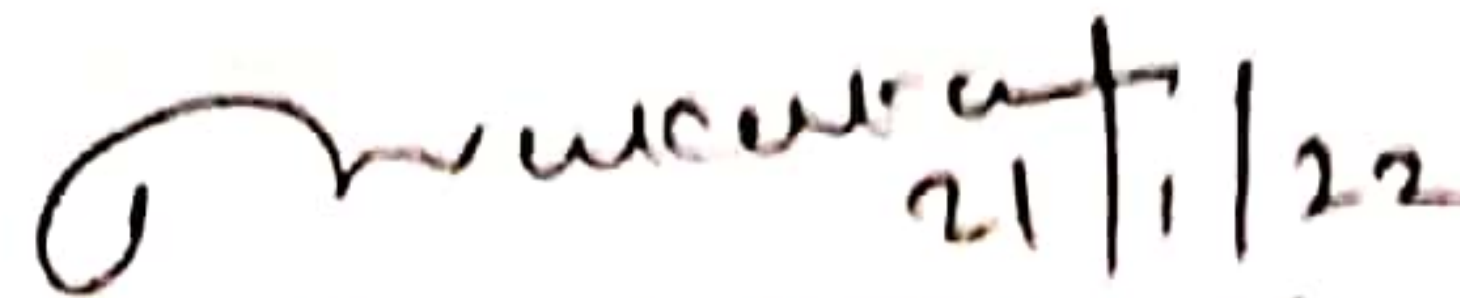
(Note: Include this page in the softcopy of the student project proposal. The student team shall furnish the details in the Google Form. It is informed to the students to 1) keep ready the softcopy of the project proposal and other documents and 2) Furnish the payment made details as processing fees and 3) update the details in the Google Form on the same day of payment made to KSCST by NEFT / UPI payment).

1. TITLE OF THE PROJECT	:	Anti-Poaching Detection System
2. NAME OF THE TEAM LEADER	:	Vijay N S
3. EMAIL ID	:	vijaysingh13091999@gmail.com
4. CONTACT MOBILE NO.	:	8095553691

PAYMENT MADE DETAILS

5. BANK REF. NO. / UTR NO. / UPI No. (12 digits)	:	9573588937@paytm
6. TRANSACTION ID	:	200590018110
7. NAME OF THE SENDER / ACCOUNT HOLDER and CONTACT NUMBER	:	Pavan Kumar Pullur
8. NAME OF THE BANK	:	Paytm Payments Bank
9. PROCESSING FEES	:	Rs. 1000/-
10. DATE OF PAYMENT MADE	:	5 th JAN 2022
11. TIME	:	11:37AM
12. MODE OF PAYMENT MADE (NEFT / UPI, PLEASE SPECIFY)	:	UPI Payment


(Name & Signature of the team leader)


(Name & Signature of Project Guide or HOD with Seal)
Head of the Department
Dept. of Computer Science & Engg.
K.S. Institute of Technology
Bengaluru - 560 109