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Punalkulam, Near Thanjavur - 613 303.

# KINGS SCIENCE EXPO-2020

Organized by  
**Kings - Research & Development Section**

05<sup>th</sup> June, 2020

**CALL FOR PROJECTS**

web:www.kingsindia.net



**CIVIL**  
Fiber Reinforced Concrete  
Load Deformation Behaviour  
Flood Forecasting  
GIS & Remote Sensing Applns.  
Ozonation for Colour Removal  
Riverbank Filtration  
Earthquake Geotechnical Engg.  
Ground Improvement  
Safety, Accident Analysis  
Intelligent Transport Systems

**CSE / IT**  
Natural Computation  
Computational Game Theory  
Continuous & Real-time Computation  
Distributed Algorithms  
Design & Analysis of Algorithm  
Inspiration of Biological Computing  
Nature Inspired Computing  
Model Theory for Computation  
Information & Commn. Complexity  
Graph Algorithms

**ECE**  
Modeling and Simulation  
Antennas & Microwave Engg.  
ASICs / SOC / NOC  
Biomedical Engineering  
Embedded System / VLSI Design  
Image / Signal Processing  
MEMS and Piezo System Integration  
Optimization Techniques  
Terrestrial & Space Optical Networks  
Wireless /FSO

**EEE**  
Renewable Energy -Green Energy  
Bio-medical Instrumentation  
Power Electronics  
Power Systems  
Modern Power Systems  
Smart Grids  
VLSI in Power Electronics/Systems  
Embedded Systems  
Electrical Machines and Drives  
Control Systems & Instrum.

**MECH**  
Renewable Energy Technology  
Production & Energy Management  
Robotics & Industrial Automation  
CAD/CAM  
Materials  
Manufacturing  
Safety Engineering  
Nano Composites & Characterization  
Design & Analysis  
MEMS

<b>Important Dates</b>	<b>Registration Fee.</b>	<b>Helpline Staff</b>	<b>Attractive Prizes</b>
Submission of Abstract : 02.06.2020	Registration (External) : Rs. 100/team	Dr. D. Sivakumar/CSE : 98420 40796	
Acceptance Notification : 03.06.2020	Internal (KCE) : No Fees	Dr. M. Meenalochani/EEE : 96298 91123	
Last Date for Registration : 04.06.2020		Mr. J. Rajaparthiban/MECH: 98940 31614	
		Mr. T. Pasupathi/ECE : 98941 04645	
		Mrs.T. Bhuvaneshwari/Civil : 99949 61305	

Organizing Committee				Organizing Committee			
<b>Chief Patrons</b>		<b>Patron</b>	<b>Co Patron</b>	<b>Organizing Chair</b>	<b>Organizing Secretaries</b>		<b>Organizing Committee</b>
Dr. R. Rajendran Secretary	Mr.T.R.S.Muthukumar Chief Executive Officer	Dr. J. Arputha Vijaya Selvi Principal	Dr. S. Sivakumar Vice Principal	Dr. P.P. Shantharaman R&D Convenor	Dr. M. Meenalochani Asst. Prof./EEE	Mr. T. Pasupathi Asst. Prof./ECE	Dr. D. Sivakumar, Asst. Prof./CSE Mr. J. Rajaparthiban, Asst. Prof./MECH Dr. S. Udhayakumar, Asst. Prof./S&H Mrs.T. Bhuvaneshwari, Asst. Prof./Civil



## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### KINGS SCIENCE EXPO – 2020

#### Report

Kings Science Expo-2020, an online Project Exposition is planned on 05.06.2020 with an exceptional idea to showcase the research talents, innovativeness, and creativity of all final year Engineering students. The main aim for conducting such a program is to enhance the knowledge of students and motivate them to compete in the global competitive engineering field. The Expo acted as a forum to bring together students of various Engineering colleges to discuss innovative ideas and diverse topics on next generation technologies. Students are encouraged to develop prototype projects on recent societal issues with better efficiency and low-cost.

#### **Objectives of the Expo:**

- To provide a forum for sharing new design and alternative technologies.
- To promote a friendly interactive environment leading to exchange of new research ideas.

#### **Topics of interest:**

- (i) Embedded Systems
- (ii) Wireless Communication systems
- (iii) Bio-medical Instrumentation
- (iv) Image/Signal Processing
- (v) Robotics
- (vi) Artificial Intelligence
- (vii) Control Systems and Instrumentation

The Expo for Electronics & Communication Engineering is scheduled at 10.30 A.M through online mode using Google meet platform. **Totally 14 batches registered for the Expo out of which two are external and the remaining 12 batches are internal. Each batch is provided 15 minutes for their project demonstration.**

The participants are judged based on the following criteria:

- Design (Compactness and the efficiency of work done)/Model of the project
- Innovation/Novelty
- Relevance with practical need
- Presentation skills
- Clarification of queries

**Outcomes of the Project Expo**

- Develop professionals having good skills, self-learning ability and confidence to support and contribute to the growth of relevant industries.
- This provides opportunity for the students to demonstrate their learning experience.



**Department of Electronics and Communication Engineering**

**KINGS SCIENCE EXPO – 2020**

**05<sup>th</sup> June, 2020**

**Instructions:**

**Key Evaluation Criteria would be**

- ✓ **Design (Compactness and the efficiency of work done)/Model of the project – 20 Marks**
- ✓ **Innovation/Novelty – 20 Marks**
- ✓ **Relevance with practical need – 20 Marks**
- ✓ **Presentation – 20 Marks**
- ✓ **Queries Clarification – 20 Marks**

**GENERAL RULES:**

- Participants **should register their presence (online) before 10.15 a.m.** on 05<sup>th</sup> June 2020.
- Mode of presentation: MS Power Point (Maxi.25 Slides)
- Partial outputs are considered.
- All registered participants **will receive participation certificate.**
- **Best project award will be awarded for the deserved project.**
- The **decision of the judges shall be treated as final** and binding.
- The panel of judges consists of subject experts.
- The organizers reserve the rights to change any or all of the above rules as they deem fit.



**Department of Electronics and Communication Engineering**

**KINGS SCIENCE EXPO – 2020**

**05<sup>th</sup> June, 2020**

**SCHEDULE**

<b>Batch ID</b>	<b>Time</b>	<b>Participants</b>	<b>Title of the Projects</b>
1.	10.30 a.m. - 10.45 a.m.	ILANKHATIR.E MOHAMED ASHIF KHAN.S BALAJI.M HARIHARAN.M	Initial Lung Cancer Cell Detection using Machine Learning
2.	10.46 a.m. - 11.00 a.m.	PRIYADHARSHINI K VITHYASRI U K SASIREKHA V SANTHAKUMARI J	A smart care taking system for uncomplaining patients and babies in arms using IoT
3.	11.01 a.m. - 11.15 a.m.	KANCHAN BHOSALE SAURABH BHOLE YASH PARAB VIKRANT RAJSHIRKE	Landslide Monitoring Using Wireless Sensor Networks
4.	11.16 a.m. - 11.30 a.m.	POOJA SHREE G BHUMIKA K M	A Compact Circular Frequency Reconfigurable Microstrip Monopole Antenna with Slotted Ground Plane for L and S Band Application
5.	11.31 a.m. - 11.45 a.m.	P.ABARNA K.DHURKA A.ELAKIYAKOWS HIKA M.SUDHA	Implementation of smart agriculture using IoT
6.	11.46 a.m. - 12.00 noon	AKALYA. K HARINI.M JENIFER. X MEGALA. M	Safezone identification and safety alert system for fishermen
7.	12.01 p.m. - 12.15 p.m.	G. KAYADEVI T. ARCHANA R. ABARNA S. AGALYA	An IoT Based smart perception of health observation
8.	12.16 p.m. - 12.30 p.m.	S.DIVAKAR S.JEEVA M.JAWAHAR T.VASUDEVAN	Raspberry Pi Based Smart Mirror using Voice Control

9.	12.31 p.m. - 12.45 p.m.	M. RASIKA C. RANJITHA D. RANJITHA R. DIVYADHARSHINI	Embedded based Ultra Model, Slime Baby Rescue System with SMD Modules
10.	12.46 p.m. - 01.00 p.m.	J INDHUJA M KOWSALYA K MEERA R SOWMIYA	Vision Based on Board Controller for Safe Landing and Target Detection for Unmanned Aerial Vehicles
<b>LUNCH BREAK</b>			
11.	02.00 p.m. - 02.15 p.m.	J.ARIYAVARSHINI S.DHANAHARSHINI I R.SANTHIYA P.PRIYADHARSHINI	AMBUBOT: Automated External defibrillator Robotic Ambulance.
12.	02.16 p.m. - 02.30 p.m.	BALARAMAN. A. K ANTONY BERNARD. F SEDHUPATHI. M VEERAMANI. M	Intelligent System Based TFACU (Tower Frequency Analysis And Control Unit)
13.	02.31 p.m. - 02.45 p.m.	DHANASEKARAN S YASIKRAHMAN B PUGALENDHI K	Advanced Design of Agricultural Robot using Bluetooth
14.	02.45 p.m. - 03.00 p.m.	T ABINAYAKARTHI KA A POOVIZHI M SRIPRIYA T TAMILAZLAGI	Implementation Plants Disease Detection and Recovering using Image Processing



HOD/ECE



Principal



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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**P.Abarna**

of

**KINGS COLLEGE OF ENGINEERING**

has demonstrated a project titled

**Implementation of Smart Agriculture using IoT**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

### **Coordinators**

Dr. M. Meenalochani, AP/EEE  
Mr. T. Pasupathi, AP/ECE

### **Convener**

Dr.P.P.Shantharaman  
Assoc. Prof/Mech

### **Patron**

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Principal

Cert. No.: KCE-KSE-022





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This is to certify that

**K.Dhurka**

of

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Mr. T. Pasupathi, AP/ECE

### **Convener**

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Assoc. Prof/Mech

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# KINGS SCIENCE EXPO-2020

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**A.Elakiyakowshika**

of

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Mr. T. Pasupathi, AP/ECE

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Assoc. Prof/Mech

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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**M.Sudha**

of

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has demonstrated a project titled

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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**AKALYA. K**

of

**KINGS COLLEGE OF ENGINEERING**

has demonstrated a project titled

**Safezone Identification and Safety Alert System for Fishermen**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

### **Convener**

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Assoc. Prof/Mech

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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**HARINI.M**

of

**KINGS COLLEGE OF ENGINEERING**

has demonstrated a project titled

**Safezone Identification and Safety Alert System for Fishermen**

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### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

### **Convener**

Dr.P.P.Shantharaman  
Assoc. Prof/Mech

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Principal

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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**JENIFER. X**

of

**KINGS COLLEGE OF ENGINEERING**

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**Safezone Identification and Safety Alert System for Fishermen**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

### **Coordinators**

Dr. M. Meenalochani, AP/EEE  
Mr. T. Pasupathi, AP/ECE

### **Convener**

Dr.P.P.Shantharaman  
Assoc. Prof/Mech

### **Patron**

Dr. J. Arputha Vijaya Selvi  
Principal

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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**MEGALA. M**

of

**KINGS COLLEGE OF ENGINEERING**

has demonstrated a project titled

**Safezone Identification and Safety Alert System for Fishermen**

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### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

### **Convener**

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Assoc. Prof/Mech

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Principal

Cert. No.: KCE-KSE-029





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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**G. KAYADEVI**

of

**KINGS COLLEGE OF ENGINEERING**

has demonstrated a project titled

**An IoT based Smart Perception of Health Observation**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

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Mr. T. Pasupathi, AP/ECE

### **Convener**

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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**T. ARCHANA**

of

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has demonstrated a project titled

**An IoT based Smart Perception of Health Observation**

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### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

### **Convener**

Dr.P.P.Shantharaman  
Assoc. Prof/Mech

### **Patron**

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# KINGS SCIENCE EXPO-2020

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**R. ABARNA**

of

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### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

### **Convener**

Dr.P.P.Shantharaman  
Assoc. Prof/Mech

### **Patron**

Dr. J. Arputha Vijaya Selvi  
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Cert. No.: KCE-KSE-032





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This is to certify that

**S. AGALYA**

of

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Mr. T. Pasupathi, AP/ECE

### **Convener**

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Assoc. Prof/Mech

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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**ILANKHATIR.E**

of

**KINGS COLLEGE OF ENGINEERING**

has demonstrated a project titled

**INITIAL LUNG CANCER CELL DETECTION USING MACHINE LEARNING**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

### **Convener**

Dr.P.P.Shantharaman  
Assoc. Prof/Mech

### **Patron**

Dr. J. Arputha Vijaya Selvi  
Principal

Cert. No.: KCE-KSE-034





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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**MOHAMED ASHIF KHAN.S**

of

**KINGS COLLEGE OF ENGINEERING**

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Mr. T. Pasupathi, AP/ECE

### **Convener**

Dr.P.P.Shantharaman  
Assoc. Prof/Mech

### **Patron**

Dr. J. Arputha Vijaya Selvi  
Principal

Cert. No.: KCE-KSE-035





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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**BALAJI.M**

of

**KINGS COLLEGE OF ENGINEERING**

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**INITIAL LUNG CANCER CELL DETECTION USING MACHINE LEARNING**

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### **Coordinators**

Dr. M. Meenalochani, AP/EEE  
Mr. T. Pasupathi, AP/ECE

### **Convener**

Dr.P.P.Shantharaman  
Assoc. Prof/Mech

### **Patron**

Dr. J. Arputha Vijaya Selvi  
Principal

Cert. No.: KCE-KSE-036





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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**Priyadharshini K**

of

**KINGS COLLEGE OF ENGINEERING**

has demonstrated a project titled

**A Smart Care Taking System for Uncomplaining Patients and Babe in Arms using**

**IoT**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

### **Coordinators**

Dr. M. Meenalochani, AP/EEE

Mr. T. Pasupathi, AP/ECE

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Dr.P.P.Shantharaman

Assoc. Prof/Mech

### **Patron**

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Mr. T. Pasupathi, AP/ECE

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### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

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### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

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**RASPBERRY PI BASED SMART MIRROR USING VOICE CONTROL**

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### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

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Mr. T. Pasupathi, AP/ECE

### **Convener**

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Mr. T. Pasupathi, AP/ECE

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**Embedded based Ultra Model, Slimebaby Rescue System with SMD Modules**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

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## *Certificate*

This is to certify that

**C. Ranjitha**

of

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Mr. T. Pasupathi, AP/ECE

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**VISION BASED ON BOARD CONTROLLER FOR SAFE LANDING AND TARGET**

**DETECTION FOR UNMANNED AERIAL VEHICLES**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

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Mr. T. Pasupathi, AP/ECE

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Mr. T. Pasupathi, AP/ECE

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Mr. T. Pasupathi, AP/ECE

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of

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**AMBUBOT: Automated External Defibrillator Robotic Ambulance**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

### **Convener**

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of

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has demonstrated a project titled

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### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

### **Convener**

Dr.P.P.Shantharaman  
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### **Coordinators**

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**INTELLIGENT SYSTEM BASED TFACU (TOWER FREQUENCY ANALYSIS AND  
CONTROL UNIT)**

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### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

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Mr. T. Pasupathi, AP/ECE

### **Convener**

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Mr. T. Pasupathi, AP/ECE

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Dr.P.P.Shantharaman  
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# KINGS SCIENCE EXPO-2020

## *Certificate*

This is to certify that

**DHANASEKARAN S**

of

**KINGS COLLEGE OF ENGINEERING**

has demonstrated a project titled

**Advanced Design of Agricultural Robot using Bluetooth**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

### **Coordinators**

Dr. M. Meenalochani, AP/EEE  
Mr. T. Pasupathi, AP/ECE

### **Convener**

Dr.P.P.Shantharaman  
Assoc. Prof/Mech

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**YASIKRAHMAN B**

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### **Convener**

Dr.P.P.Shantharaman  
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# KINGS SCIENCE EXPO-2020

## *Certificate*

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### **Convener**

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This is to certify that

**T.Abinayakarhika**

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**Implementation of Plant Disease Detection and Recovery using Image Processing**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

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## *Certificate*

This is to certify that

**M.Sripriya**

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**T.Tamilazhagi**

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Mr. T. Pasupathi, AP/ECE

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## *Certificate*

This is to certify that

**G.Priyadharshani**

of

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has demonstrated a project titled

**Design and Implementation of Modified Automated Teller Machine**

in the **KINGS SCIENCE EXPO - 2020** (Online mode) jointly organized by IEEE Student Branch STB 16621, MHRD-Institution Innovation Council and Indian Society for Technical Education (TN- 217), Kings College of Engineering, Punalkulam.

### **Coordinators**

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Mr. T. Pasupathi, AP/ECE

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Dr.P.P.Shantharaman  
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This is to certify that

**K.Vidhya**

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Assoc. Prof/Mech

### **Patron**

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Principal

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