

ECE QUEST

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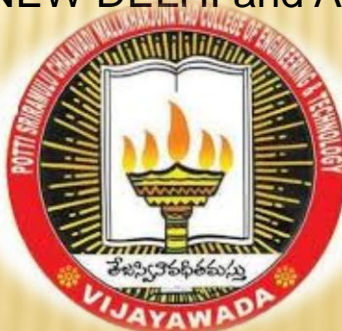
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PSCMR

College of Engineering and Technology

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ABOUT THE DEPARTMENT

The Department of **Electronics and Communications Engineering** envisions the E.C.E graduate as a competent and ethical professional in the areas of electronics, communications, and digital signal processing. The Department of Electronics and Communication Engineering is established in **2008**. It offers B.Tech programme with a student intake of **120**.

Vision:

To be a leading center for education and research in electronics and communication engineering, making the students adaptable to contemporary technologies with sound knowledge and socio-ethical values in an integrated learning environment.

Mission:

- ✘ **M1:** To produce knowledgeable and technologically competent engineers for providing services to the society.
- ✘ **M2:** To have a collaboration with leading academic, industrial and research organizations for promoting research activities among faculty and students.
- ✘ **M3:** To create a unified learning environment for sustained growth in electronics and communication engineering and related areas.

PSO'S

- ✘ **PSO1:** The ECE Graduates will be equipped with knowledge of complete design flow from specification to silicon in areas of both digital and analog VLSI Design and will be able to work in IC design companies.
- ✘ **PSO2:** The ECE Graduates will be trained with microprocessor and microcontroller based system design skills and can work as design and verification engineers in the area of embedded systems design.
- ✘ **PSO3:** The ECE Graduates will be able to apply engineering knowledge for design and implementation of projects pertaining to signal processing and communications.
- ✘ **PSO4:** The ECE Graduates will be incorporated with necessary soft skills, Aptitude and technical skills to work in it and public sector.

PEO'S

- × **PEO1: Engineering Foundation**

To produce graduates with firm foundation in electronics and communication engineering.

- × **PEO2: Core Competence**

To motivate graduates to Analyze, Design, Develop, Optimize and implement electronic systems with competent spirit.

- × **PEO3: Breadth Knowledge**

To enable graduates with sufficient breadth in electronics and its related fields to solve general engineering problems in an eco-friendly environment.

- × **PEO4: Soft Skills**

To make graduates with a professional outlook who can communicate effectively and interact responsibly with colleagues, Clients, Employers and society.

- × **PEO5: Knowledge Enhancement**

To prepare graduates who pursue lifelong learning and professional development including higher education.

DO IT YOURSELF

Home Automation Using Arduino Through Android Device

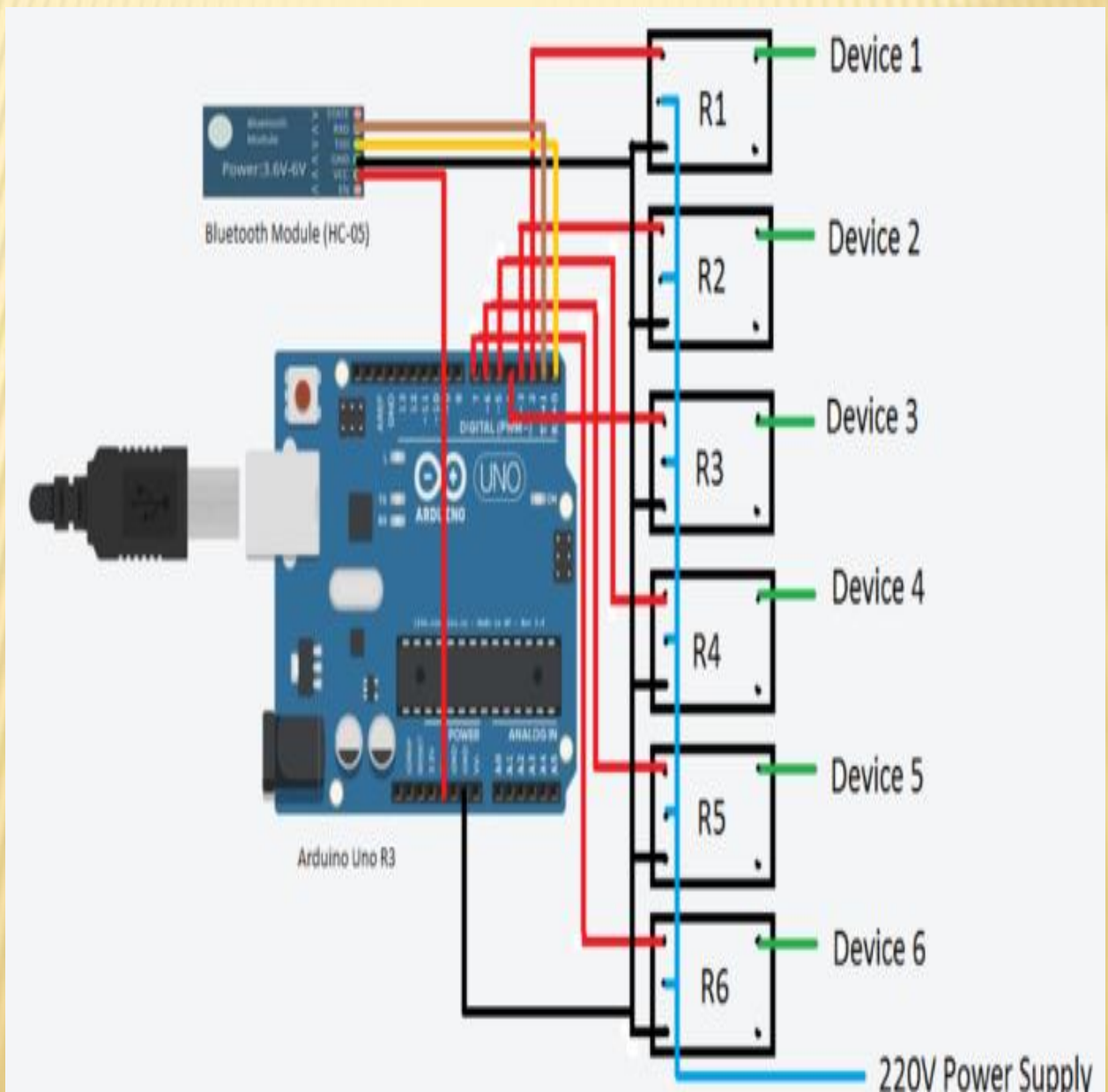
This project is based on Interfacing an android application to Arduino Uno board using Bluetooth. The result is a home automation system with minimal electronic components without complex soldering and simple and flexible design.

Parts List

- ✘ Arduino Uno R3 Development Board (or a trusted working clone would work fine)
- ✘ Bluetooth Module (Preferably HC-05)
- ✘ Android Device (Preferably one running v4.0 or above)
- ✘ Relays (R1 – R6 in Schematic diagram)
- ✘ Connectors
- ✘ USB cable for Arduino

CONTD..

✘ Schematic Diagram



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- ✘ Source Code can be downloaded from:
<https://drive.google.com/file/d/0B1BZ-FTx>

Connections

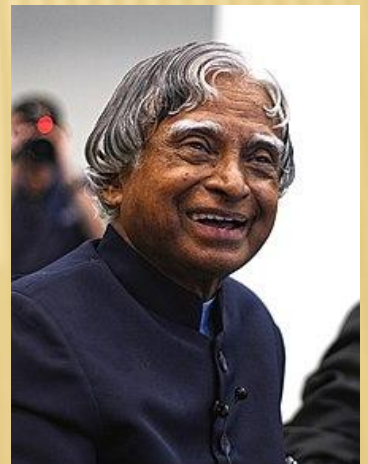
- ✘ Connect pins 2-7 of Arduino to Relays R1-R6 at pin “x” of each relay respectively.
- ✘ Interconnect all the “y” pins of each relay and connect one of them to the GND pin of Arduino.
- ✘ Connect VCC of Bluetooth module to 5v power pin of Arduino and likewise GND pin of Bluetooth module to GND pin of Arduino.
- ✘ Interconnect all the “t1” pins of each relay and connect one of them to 220V input of main power supply.
- ✘ Connect any one terminal of each of the devices to be controlled to pin “t2” of each of the relays R1-R6 respectively.
- ✘ Connect the other remaining terminals (Ground terminals) of all the devices to be controlled to GND of the main power supply.
- ✘ Connect Tx of Bluetooth module to Rx of Arduino and Rx of Bluetooth module to Tx of Arduino.

SCIENTIST OF THE YEAR

A. P. J. Abdul Kalam

Former President of India

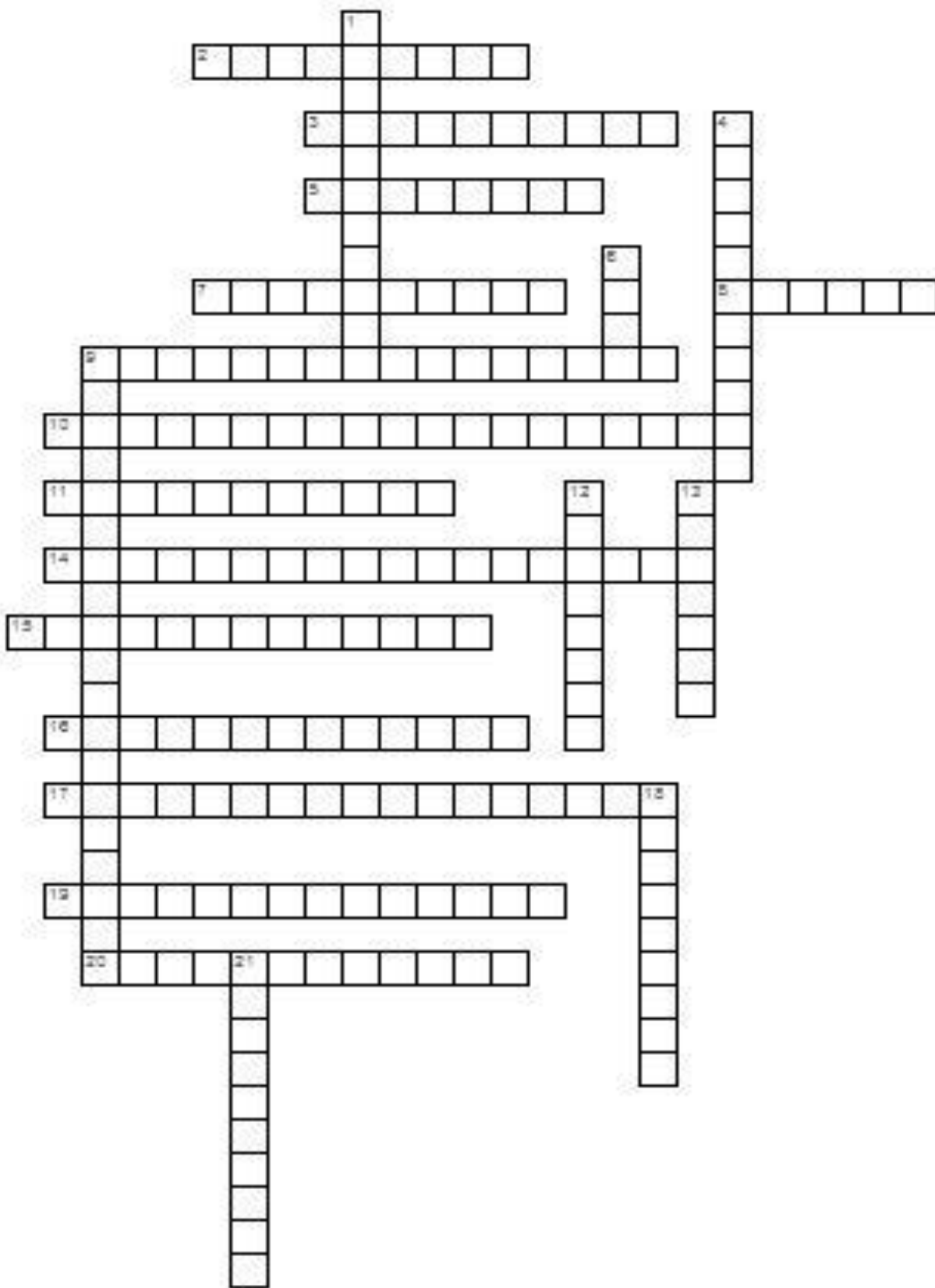
Avul Pakir Jainulabdeen Abdul Kalam (15 October 1931 – 27 July 2015) was an aerospace scientist who served as the 11th President of India from 2002 to 2007. He was born and raised in Rameswaram, Tamil Nadu and studied physics and aerospace engineering. He spent the next four decades as a scientist and science administrator, mainly at the Defence Research and Development Organisation (DRDO) and Indian Space Research Organisation (ISRO) and was intimately involved in India's civilian space programme and military missile development efforts. He thus came to be known as the Missile Man of India for his work on the development of ballistic missile and launch vehicle technology. He also played a pivotal organisational, technical, and political role in India's Pokhran-II nuclear tests in 1998, the first since the original nuclear test by India in 1974



IMPORTANT WEBSITES

- × **EdX: edx.org**
- × **Academic Earth: academicearth.org**
- × **Internet Archive: archive.org**
- × **Big Think: bigthink.com**
- × **Coursera: coursera.org**
- × **Brightstorm: brightstorm.com**
- × **CosmoLearning: cosmolearning.com**
- × **Khan Academy: khanacademy.org**

CROSSWORD



CROSSWORD

× Clues:

Across

- 2 device used to generate electricity
- 3 used to determine how well a battery delivers power
- 5 one of the six most common voltage sources
- 7 a specific type of generator
- 8 common point in electrical circuits
- 9 another name for solar cell
- 10 connecting negative to negative
- 11 when current flows in a circuit
- 14 a current that flows in one direction, then in the opposite direction
- 15 chemical cell that can be recharged
- 16 flows in only one direction
- 17 connecting positive to negative
- 19 cells used to increase current and voltage outputs
- 20 used to convert heat into electrical energy

Down

- 1 a chemical that cannot be recharged
- 4 the voltage applied to a circuit
- 6 method of producing electrical energy consisting of two dissimilar materials
- 9 process that results when pressure is applied to a crystal
- 12 a type of configuration
- 13 a combination of two or more cells
- 18 another name for photovoltaic cell
- 21 energy converter that changes sound energy into electrical energy