Title: Exploring Creativity and Innovation: Recap of Ramaiah Polytechnic's In-House Exhibition

Innovation is the cornerstone of progress, and what better way to foster it than through showcasing creativity within the confines of one's institution? Ramaiah Polytechnic recently hosted an exhilarating in-house exhibition, where students and faculty alike displayed their ingenuity across various disciplines. This event not only celebrated the achievements of the institution but also served as a platform for budding talents to shine. Let's delve into the vibrant tapestry of ideas and innovations that adorned the exhibition halls.

Unveiling the Future: EEE Department's In-House Exhibition Projects at Ramaiah Polytechnic

Electrical and Electronics Engineering (EEE) is a dynamic field that drives innovation across various industries. At Ramaiah Polytechnic, the EEE Department's in-house exhibition stands as a testament to the department's commitment to fostering creativity and pushing the boundaries of technological advancement. Let's delve into some of the captivating projects showcased at the exhibition, each reflecting the ingenuity and expertise of the students and faculty.

1.PROJECT OF SOIL MOISTURE SENSOR

The project aims to automate the process of watering plants, ensuring they receive the right amount of water at the right time, thereby promoting healthy plantgrowth and reducing the risk of overwatering or under watering. The project of implementing an automatic water irrigation system in a home garden is a beneficial endeavor that can streamline plant care, save water, and enhance the health and longevity of the garden. While there are initial costs and potential adjustments needed, the long-term benefits in terms ofplant health, water conservation, and convenience make it a valuable investmentfor garden enthusiasts looking to optimize their gardening practices.

2.SIMPLE SOLAR TRACKER USING LDR SENSOR MODULE

Building a simple solar tracker without using a microcontroller can be achieved using analog components such as sensors, comparators, and actuators. Here's a basic concept using a light-dependent resistor (LDR), operational amplifiers (op-amps), and a motor.

Group members

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3.OBSTACLE AVOIDANCE BLUETOOTH CONTROLLED ROBOT

Obstacle Avoiding Robot is an intelligent device that can automatically sense the obstacle in front of it and avoid them by turning itself in another direction. This design allows the robot to navigate in an unknown environment by avoiding collisions, which is a primary requirement for any autonomous mobile robot. The application of the Obstacle Avoiding robot is not limited and it is used in most of the military organizations now which helps carry out many risky jobs that cannot be done by any soldiers.

GROUP MEMBERS

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3.SMART TRAFFIC SIGNALS

In this world of busy roads, traffic signal plays the vital factor in saving person's life. In this project we are not only tried to provide a way to ambulance but also tried to provide a ready situation in hospital to do the treatment of patient in time.. This system detectS the occurrence of ambulance and switch the signals to green. The entire system is automated, thus it require less human intervention. "Intelligent Traffic Signals Control System for Ambulance" increase the possibility of saving lives.

GROUP MEMBERS

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Pioneering Sustainability: EC Department's In-House Exhibition Projects at Ramaiah Polytechnic

Environmental consciousness and sustainable practices have become integral to modern engineering endeavors. The Electronics and Communication (EC) Department at Ramaiah Polytechnic recognizes this paradigm shift and has showcased an array of innovative projects during its in-house exhibition. These projects not only demonstrate technical prowess but also underscore the department's commitment to addressing contemporary environmental challenges. Let's explore some of the captivating projects exhibited at the event.

1.METAL DETECTOR PICK AND PLACE ROBOTIC ARM

whenever the inductive sensor detects the presence of metal objects, it sends a signal to the robot and the robot comes and picks the object and places it in the container. the arduino code is as per the above, where the servo motors and stepper motor works to move the desired position of the robot.

GROUP MEMBERS

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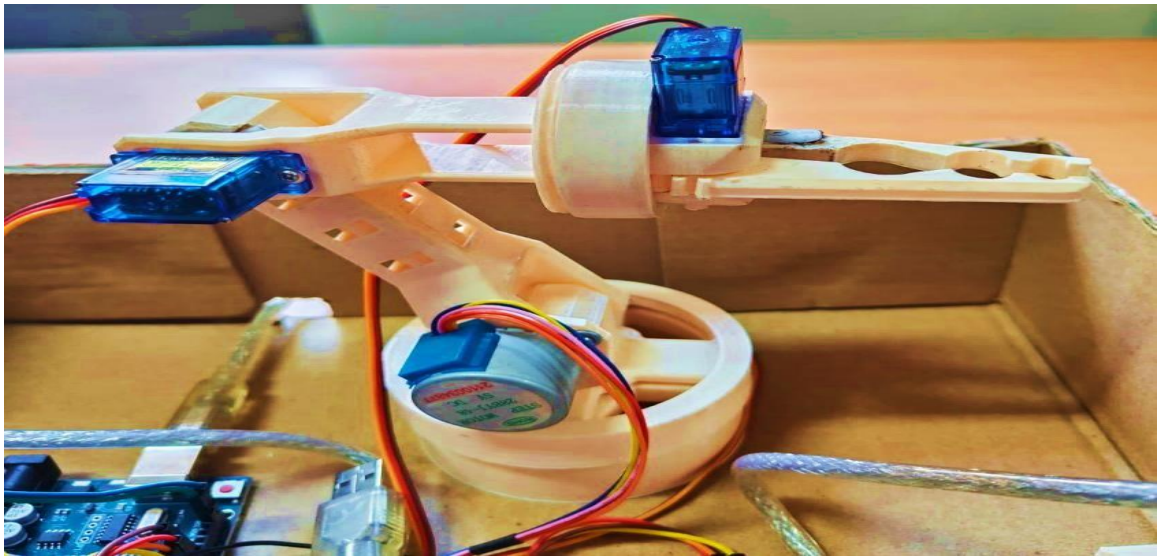

2.AUTOMATIC STREET LIGHT CONTROL

Automatic street light control using Arduino, LDR, relay, and a bulb. It involves using a light-dependent resistor (LDR) to sense the ambient light level. When it gets dark, the resistance of the LDR increases, triggering the Arduino to turn on the relay connected to the street light bulb. During daylight, the LDR's resistance decreases, causing the Arduino to turn off the relay, thus controlling the street light automatically. This system helps save energy by ensuring that the street light is only on when needed, based on the ambient light conditions

GROUP MEMBERS

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Glimpse into the diverse projects showcased by the Computer Science (CS) Department at the recent in-house exhibition:

1. IMPORTANCE OF CANTEEN MANAGEMENT SYSTEM

Employee satisfaction is a cornerstone of organizational success, and one area often overlooked is the management of employee canteens.

An efficient backend system for maintaining functional use and record keeping of employee canteen details can significantly contribute to the enhancing of overall work experience.

GROUP MEMBERS

Flavian F Joseph

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2. WEBSITE VULENRABILITY ASSESSMENT

Our job as a group of interns was to try to exploit website vulnerabilities but as w2e are progressing, we were also assigned the task to try to access a windows machine and a linux machine.

GROUP MEMBERS

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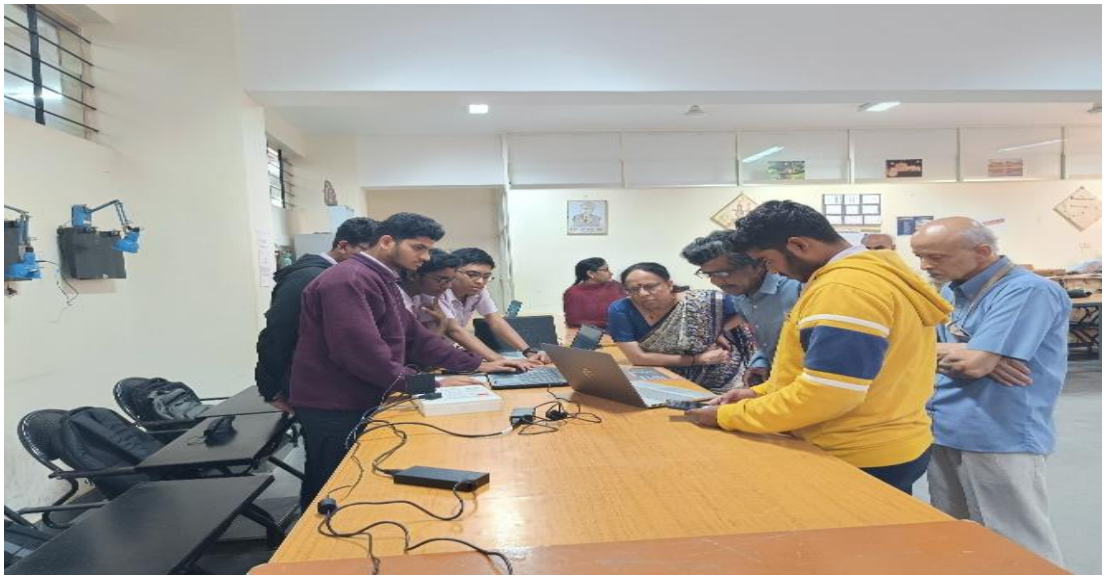
Hemanth

Swastika Shetty

Bhagavathy raj



3. TRAVEL PLANNER WEBSITE

The user runs the code with live server under the visual studio code IDE and the required libraries are imported every file is defined as a separate web page which serves its own purposes the main home page is loaded and the user searches their own preferred destination.

GROUP MEMBERS

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4. GUARDX ANTIVIRUS

The project entails the development of a sophisticated threat detection and antivirus application in python, comprising multiple interconnected modules and functionalities.

GROUP MEMBERS

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