

Green Programme

AICTE Clean & Smart
Campus Award 2019

Department of CSE

SRM IST

Faculty of Engineering & Technology



Prepared by

Dr. B. Amutha (HOD/CSE)

R. Rajkumar (AP/CSE)

23) A) Is there active students' involvement in college-recognized green programs and projects?

B) If yes, how many programs were done in the past year?

33) A) Is there any paperless policy implemented on the campus?

B) What is the extent of the paperless office implemented in the institute?

23) A) Is there active students' involvement in college-recognized green programs and projects?

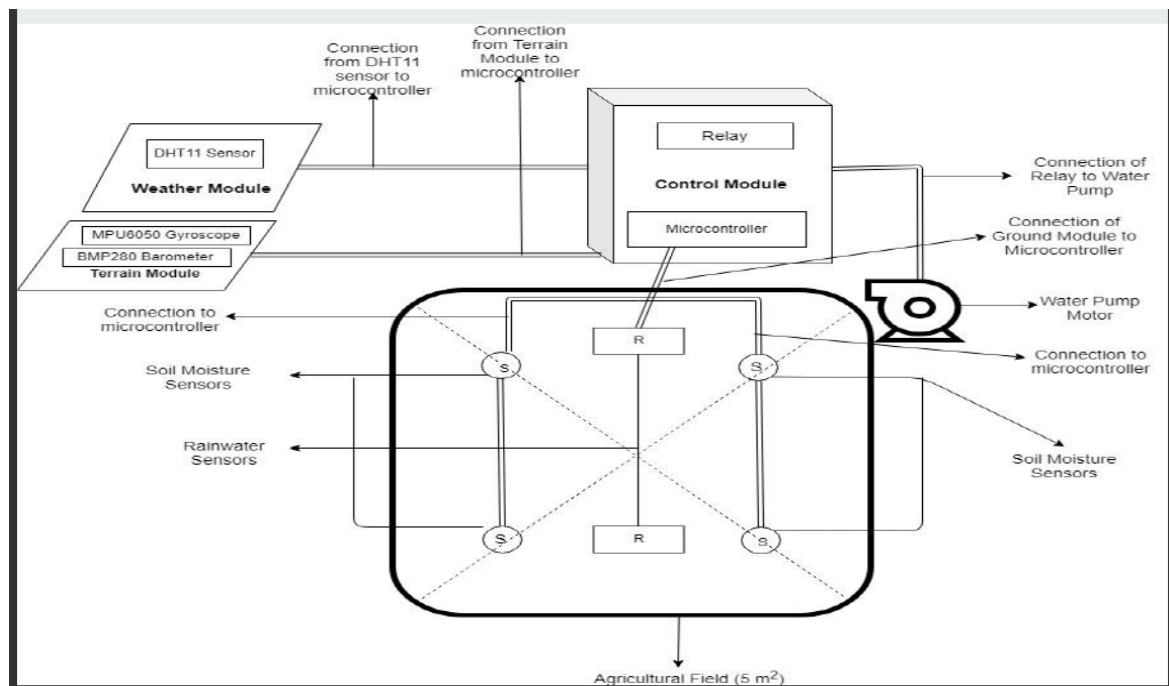
2018- 2019 Academic year student's green projects.

Projects in computer schooling	Status	Total
Agriculture & Green Initiatives	Completed	6
Healthcare Initiatives	Completed	3
Monitoring & Controlling	Completed	3
Recycling Initiatives	Completed	2
Smart Campus Initiatives	Completed	2
Total		15

Project 1:

Autonomous Irrigation System

Project by:
Akshay Kumar, RA1511003010552
Mohit Khare, RA1511003010554
Guided By: Dr. M. Murali



Project 2:

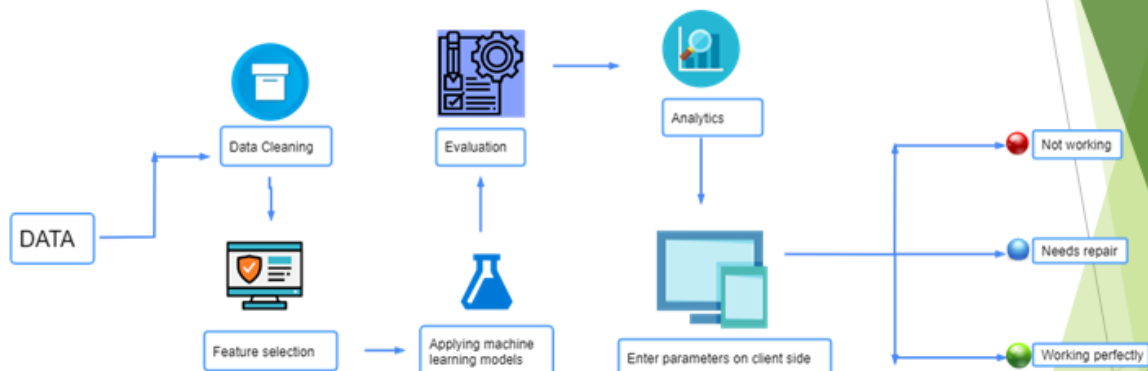
Determining the water pump status

Jayakrishna B (RA1511003010131)

Karthik Prasad (RA1511003010158)

Guide : Dr E Poovammal

Architecture Diagram



Project 3:

Analysis of Crop Yield Prediction using Artificial Intelligence and Satellite Imagery

Project Guide- Dr. C. Malathy

RA1511003010912 - Pratishtha Soni

RA1511003010908 - Teresa Priyanka

PROPOSED SYSTEM

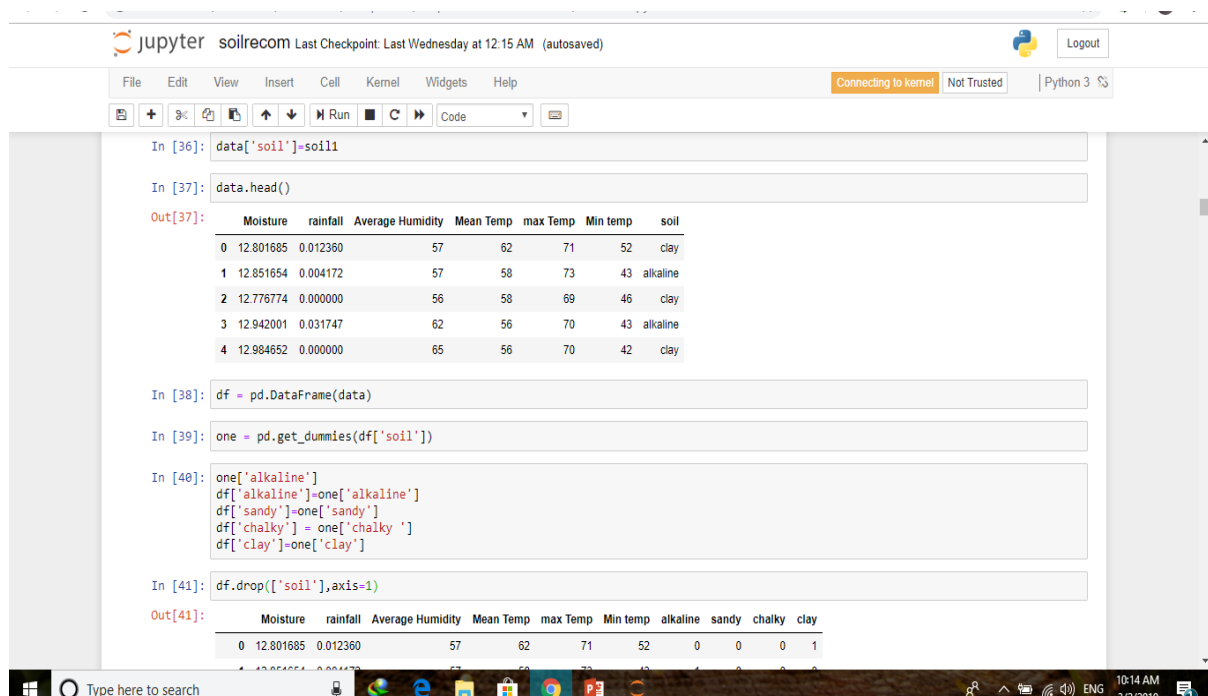
- The proposed system constitutes the prediction of crop yield by using Artificial Neural Network algorithm for areas where datasets are easily accessible.
- By using Convolution Neural Network algorithm through satellite imagery allows us to predict crop yield and analyze datasets are not easily distinguished.
- The fundamental objective is to compare the output of ANN and CNN to verify whether the results in crop prediction is accurate.
- This project utilizes crop yield prediction strategies to forecast the appropriate crop by identifying diverse soil and atmospheric condition parameters.
- The most practical and difficult issue in agriculture is making sure the crop yield production is maintained on an increasing scale by using ANN and CNN to predict the crop yield and take necessary action if needed to ensure the crop yield is going to give greater profit.
- This gives a rise in the development in agriculture. It also defines area and problem specific machine learning approach and further consolidates these into a robust machine learning approach.

Project 4:

Farm prediction using machine learning and IoT

Project by:
Ranjan himanshu ravi (RA1511003010250)
Pranshu Sharma(RA1511003010368)

Under the guidance of
Mr. Pradeep Sudhakaran



The screenshot displays a Jupyter Notebook environment with the following components:

- Header:** "jupyter soilrecom Last Checkpoint: Last Wednesday at 12:15 AM (autosaved)" and a "Logout" button.
- Menu Bar:** File, Edit, View, Insert, Cell, Kernel, Widgets, Help.
- Status Bar:** "Connecting to kernel", "Not Trusted", and "Python 3".
- Code Cells:**
 - In [36]: `data['soil']=soil1`
 - In [37]: `data.head()`
 - Out[37]: A table showing the first 5 rows of data with columns: Moisture, rainfall, Average Humidity, Mean Temp, max Temp, Min temp, and soil.
 - In [38]: `df = pd.DataFrame(data)`
 - In [39]: `one = pd.get_dummies(df['soil'])`
 - In [40]: `one['alkaline']`, `df['alkaline']=one['alkaline']`, `df['sandy']=one['sandy']`, `df['chalky'] = one['chalky ']`, `df['clay']=one['clay']`
 - In [41]: `df.drop(['soil'],axis=1)`
 - Out[41]: A table showing the first 5 rows of data with columns: Moisture, rainfall, Average Humidity, Mean Temp, max Temp, Min temp, alkaline, sandy, chalky, and clay.

	Moisture	rainfall	Average Humidity	Mean Temp	max Temp	Min temp	soil
0	12.801685	0.012360	57	62	71	52	clay
1	12.851654	0.004172	57	58	73	43	alkaline
2	12.776774	0.000000	56	58	69	46	clay
3	12.942001	0.031747	62	56	70	43	alkaline
4	12.984652	0.000000	65	56	70	42	clay

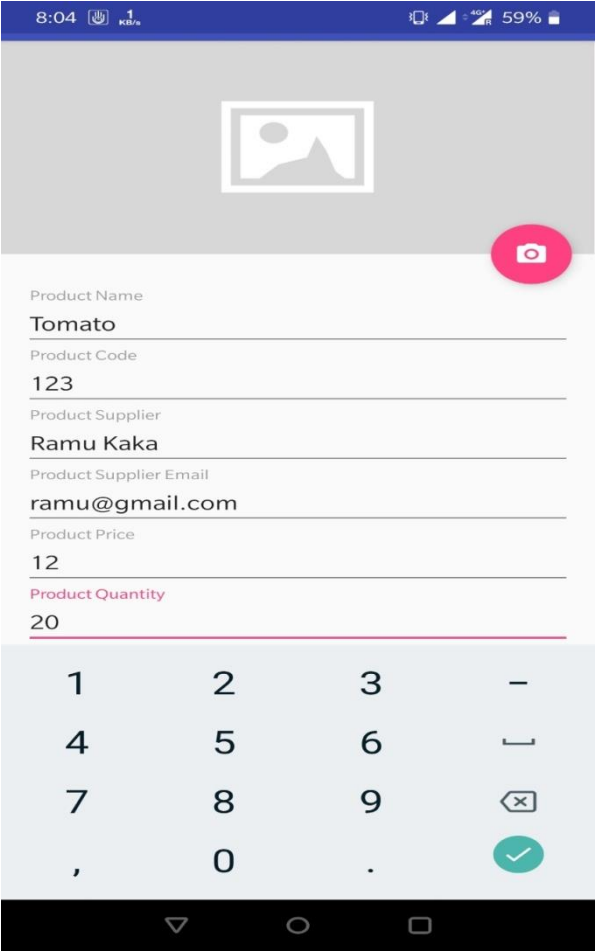
	Moisture	rainfall	Average Humidity	Mean Temp	max Temp	Min temp	alkaline	sandy	chalky	clay
0	12.801685	0.012360	57	62	71	52	0	0	0	1

Project 5:


SMART RECOMMENDATION SYSTEM FOR RURAL AGRICULTURAL DEALERS AND FARMERS USING IoT


STUDENT 1 : MD MUBASHIR (RA1511003010022)
STUDENT 2 : AKSHAY SAMRAT (RA1511003010288)
Project ID : CSE28822
Guided by Vaishnavi Moorthy,
Assistant Professor, Department of CSE.

1



8:04 1 KB/s 4G 59%





Product Name
Tomato

Product Code
123

Product Supplier
Ramu Kaka

Product Supplier Email
ramu@gmail.com

Product Price
12

Product Quantity
20

1 2 3 -
4 5 6 _
7 8 9 ×
, 0 . ✓



Prototype Board:



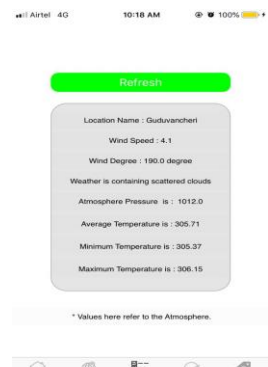
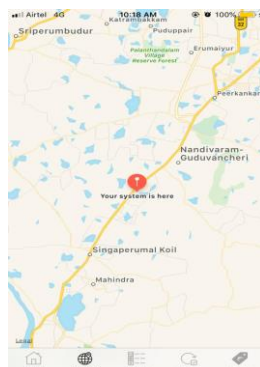
Project 6:

A SYSTEM FOR DETECTING HUMIDITY AND SOIL TEXTURE OF CROP YIELD

PATENT ID : 201841045042

Sakthivel B - RA1511003010117
Singadi Rajesh Kumar - RA1511003010135

Guide: Mr. M. Rajasekaran

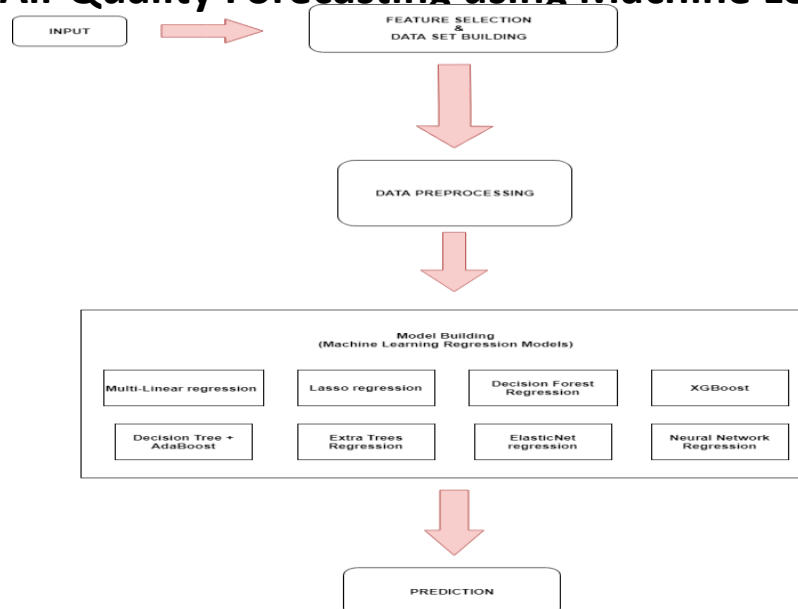


Project 7:

AIR QUALITY FORECASTING USING MACHINE LEARNING

NANDIGALA VENKAT ANURAG-RA1511003010384
YAGNAVALK BURRA-RA1511003010737

Project: Air Quality Forecasting using Machine Learning



Project 8:

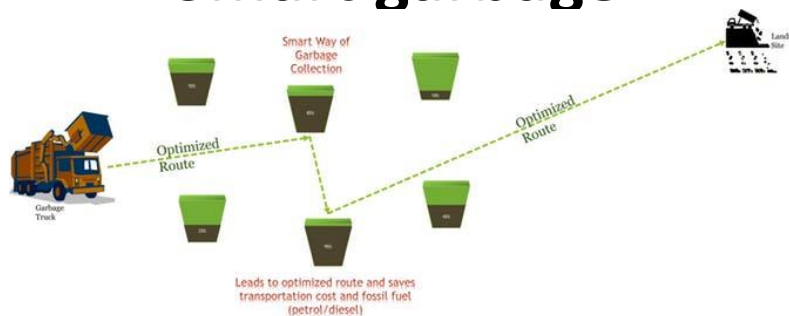
SMART GARBAGE COLLECTION SYSTEM

(Using IOT and Cloud Computing)

Traditional garbage collection



Smart garbage




Project 9:

**SRM**
INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

SMART WASTE MANAGEMENT SYSTEM

GUIDE: M.REVATHI

SUBMITTED BY:
PV SAI SURAJ YADAV-RA1511003010291
LELLA NAGAVARDHAN REDDY-RA1511003010383

**SRM**
INSTITUTE OF SCIENCE & TECHNOLOGY
Deemed to be University u/s 3 of UGC Act, 1956

Smart Waste Management System

This new method of smart waste city management which makes the environment of the city clean with a low cost. In this the sensor model detects, measures, and transmits waste volume data over the Internet. A new method is proposed to dynamically and efficiently manage the waste collection by predicting waste status, classifying trash bin location, and monitoring the amount of waste. Then, this waste is managed by the garbage truck.

Hardware used

1. Ultrasonic Sensors
2. Moisture Sensor
3. Mems Sensor
4. Arduino Compiler
5. Microcontroller

Project 10:



SRM INSTITUTE OF SCIENCE & TECHNOLOGY
FACULTY OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

HUMAN DETECTION & COUNTING

PRESENTED BY:

RA1511003010300
JITESH SHARMA

RA1511003010561
APURVISAINI

ASSISTED BY:

MRS. C. JAYAVARTHINI
ASSISTANT PROFESSOR
CSE
SRM UNIVERSITY



SCOPE

- Real-time crowd counting in videos becomes more and more important for public area monitoring for the purpose of safety and security.
- The goal of crowd counting is to estimate the number of people passing through a given line or a given area.
- It has many valuable real-world applications, such as controlling the number of people in the venues, counting the number of animals in zoo, estimating the people flow in the subway station, counting people entering and exiting an environment

Project 11:

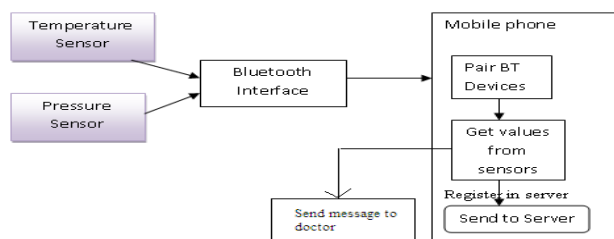


SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
Devoted to be University

MONITORING HEALTH CARE SYSTEM USING IOT

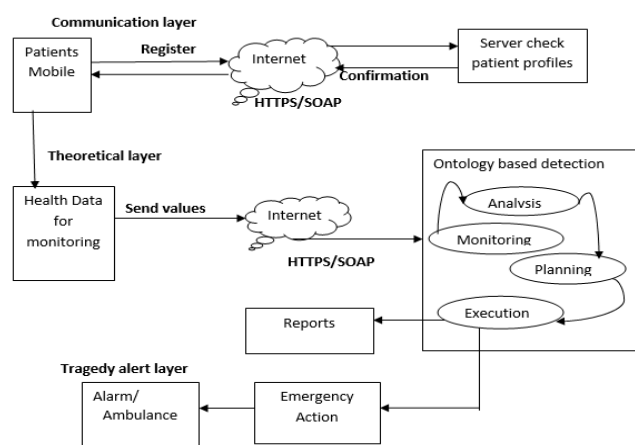
Team Members:
Chinta prudhvi kiran– RA1511003010180
Mandava omkar chowdary-RA1511003010258

Faculty:
DR.A.MURUGAN



Client

Server



Project 12:

9:34:44 P 74%

Bluetooth Terminal

Enter Username

Enter Password

LOGIN REGSITER HERE

9:34:50 P 74%

Bluetooth Terminal

Enter Username

Enter Password

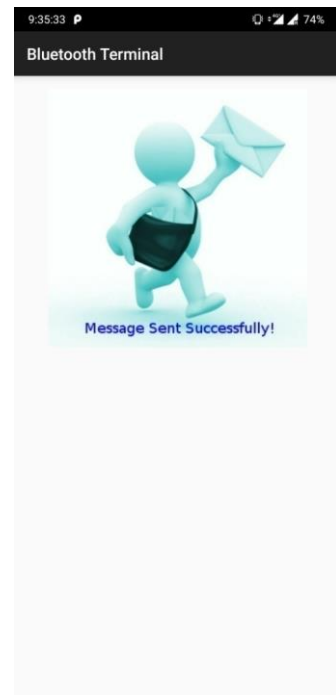
Enter Age:

Enter E-Mail:

Enter Mobile

Enter Location:

REGISTER



Project 13:



Automated Car Parking System



Guide

Mr. T. Balachander, AP/CSE

Done by

RA1511003010576 Mithul Titten Koshy

RA1511003010330 D.Azshwanth

Benefits of the Proposed System

- Since the system is well organized the parking system provides parking space for a large number of cars.
- As it is automated it requires only a small place for constructing the parking area.
- This kind of parking system reduced the stress of drivers as they don't have to go and find an appropriate parking area in the roads.
- The chance of an accident happening to the parked cars is eradicated in this automated parking system.
- There is almost zero chance for a car to get lost which is not the case in traditional parking system. It provides information of the slot available as well as guides the driver to the particular spot



Project 14:

SMART TRAFFIC MANAGEMENT



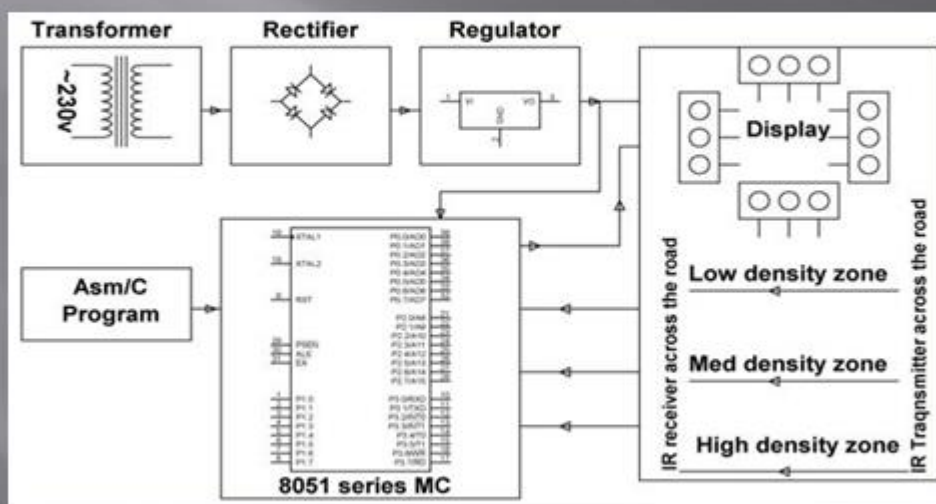
Team members:

Shivam Sharma - RA1511003010770

Abhishek Kumar Singh - RA1511003010756

Guide : Dr. V. V. Ramalingam

System Architecture



Project 15:



33. Paperless policy

i) Energy Conservation policies

1. The awareness of the SDGs and best practices for energy conservation advised to the students on their day to day activities.
2. Practicing green IT initiatives to emphasis clean and green environment in part of a broader interest on corporate social responsibility(CSR) for students.
3. Optimization in infrastructure support and data centre management can also “green-up” the energy.
4. The energy conservation policy promoting by electronic media through mobile updates, email and presentation.

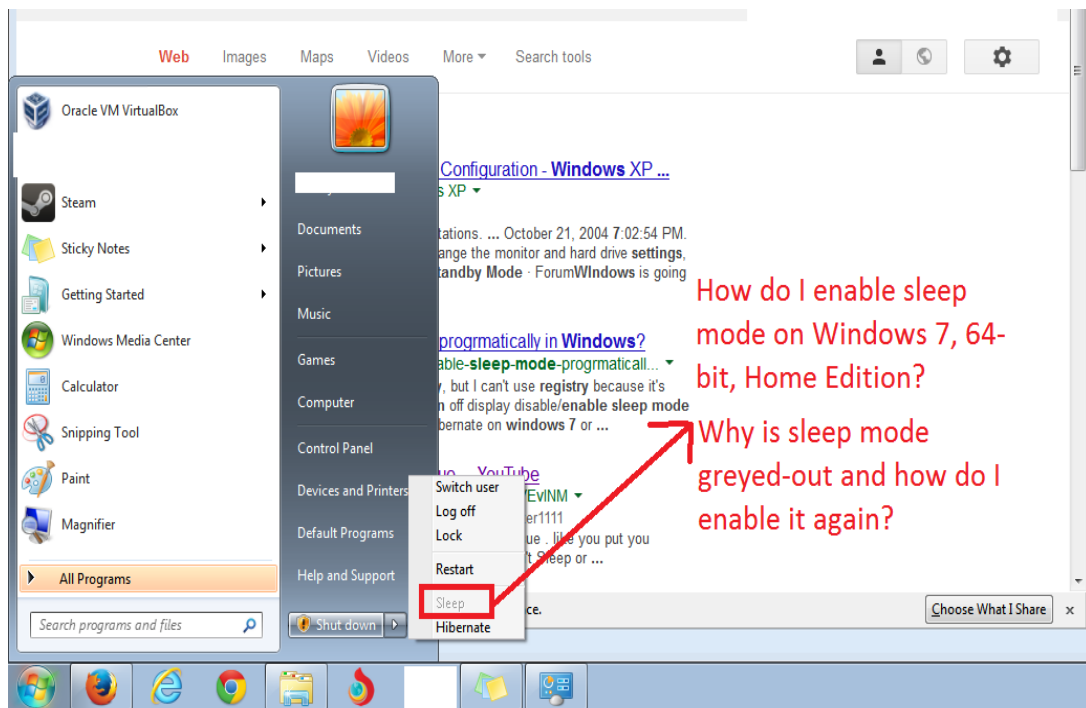
Implementation

1. Sleep mode of PC

Sleep mode, once known as Stand by or Suspend mode, saves energy but doesn't quite turn the PC off.

In Sleep mode, Windows saves what we are doing and then puts the computer to sleep meaning into a special low-power mode.

The computer isn't exactly off, and it restores itself quickly, which makes Sleep mode more effective as a way to shut down the computer. So, it is more effective PC to sleep.



Sleep mode in PC to promote energy conservation

2. Low energy consumption monitors

Energy Star qualified Computers use 30% less energy than average. Our Lab computers are Energy star enabled devices



Energy Star 5.0 became effective on July 1, 2009.

Energy Star 6.1 became effective on September 10, 2014.

Energy Star 7.1 became effective on November 16, 2018

3. Back ground color means a lot

A pure black or generally dark-colored wallpaper or background can actually **save power** over a lighter one.

Plain black wallpapers can also make text easier to read, helping the icons stand out.

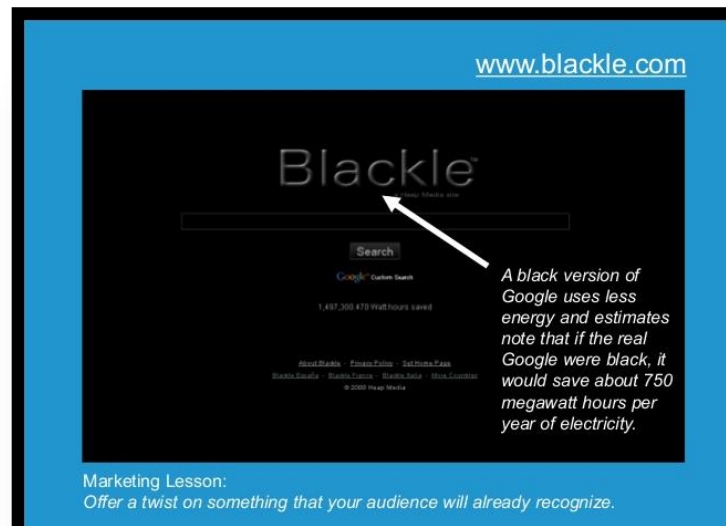


In other words, if the black background on an AMOLED display, the display will produce less light. This will help save battery power, gives more battery life of the device.

4. Blackle search engine

Instead of Google use Blackle, The concept behind Blackle is that computer monitors can be made to use less energy by displaying much darker colors. Blackle is based on a study which tested a variety of CRT and LCD monitors. There is dispute over whether there really are any energy saving effects,

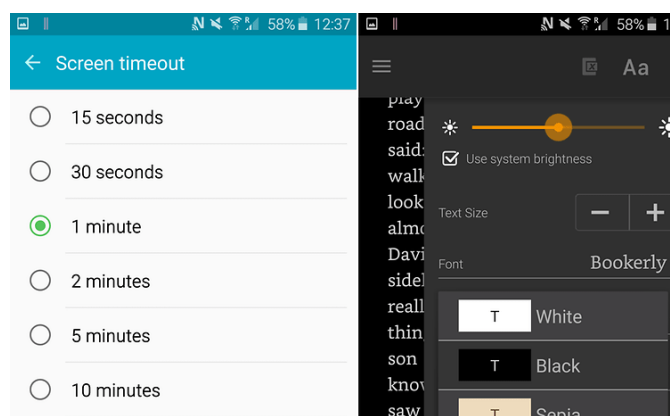
especially for users of LCD screens, where there is a constant backlight.



This concept was first brought to the attention to save energy which estimated that Google could save 750 megawatt hours a year by utilizing it for CRT screens. The homepage of Blackle provides a count of the number of watt hours claimed to have been saved by enabling this concept.

5. Mobile phone battery life time saving

For cell phone need to set the Screen time out for 1 minute & use black color wallpapers to save energy for battery.

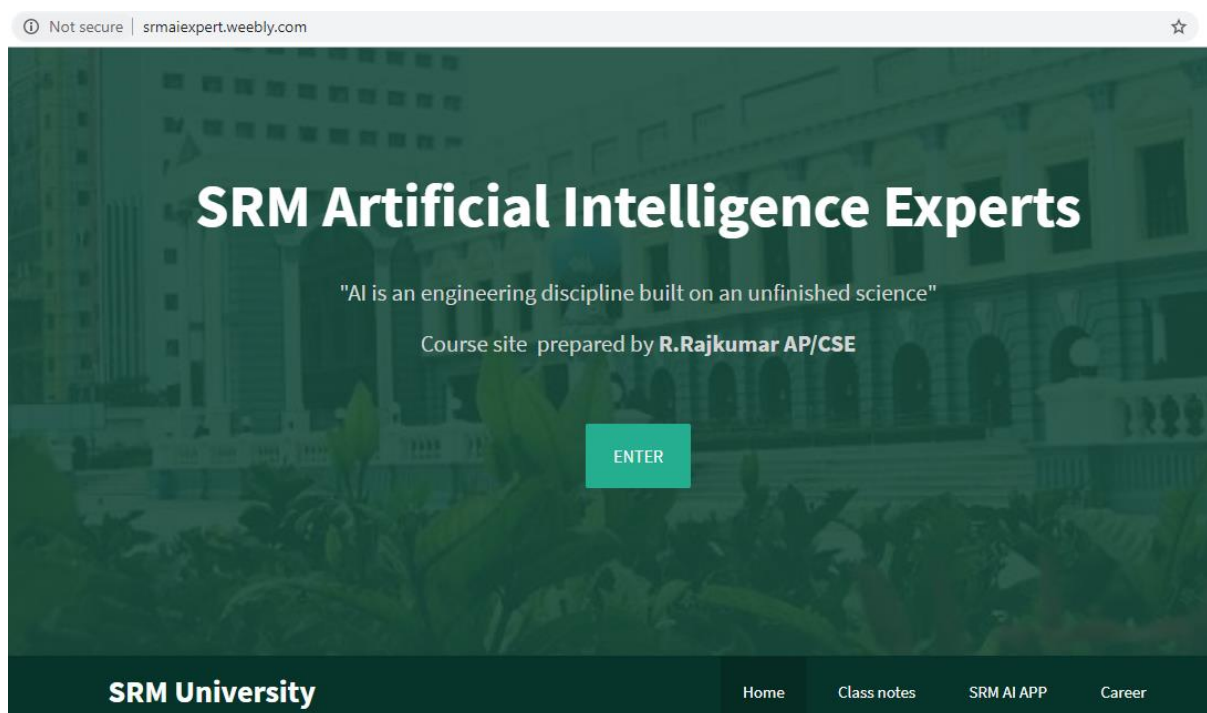


33. Paperless policy

ii) Study materials and online - tests

S. No	Utility	Type
1	Online study materials	Slides, Documents, URL Links, PDF
2	Online Quiz	Google Doc
3	Online Assignment	Google Sheets
4	Research papers submission	Doc, PDF
5	Project report presentation	PPT, PDF

Proofs:



COMPILER AND DESIGN

[LIVE CLASS](#)[CLASS NOTES](#)[QUESTION BANK](#)[LAB](#)[MORE...](#)[Live Class](#)

1-compiler_outline.ppt
[Download File](#)

SRM VIRTUAL REALITY

[HOME](#)[CLASS](#)

CLASS WEEKLY NOTES



vr_week_1.pptx
[Download File](#)



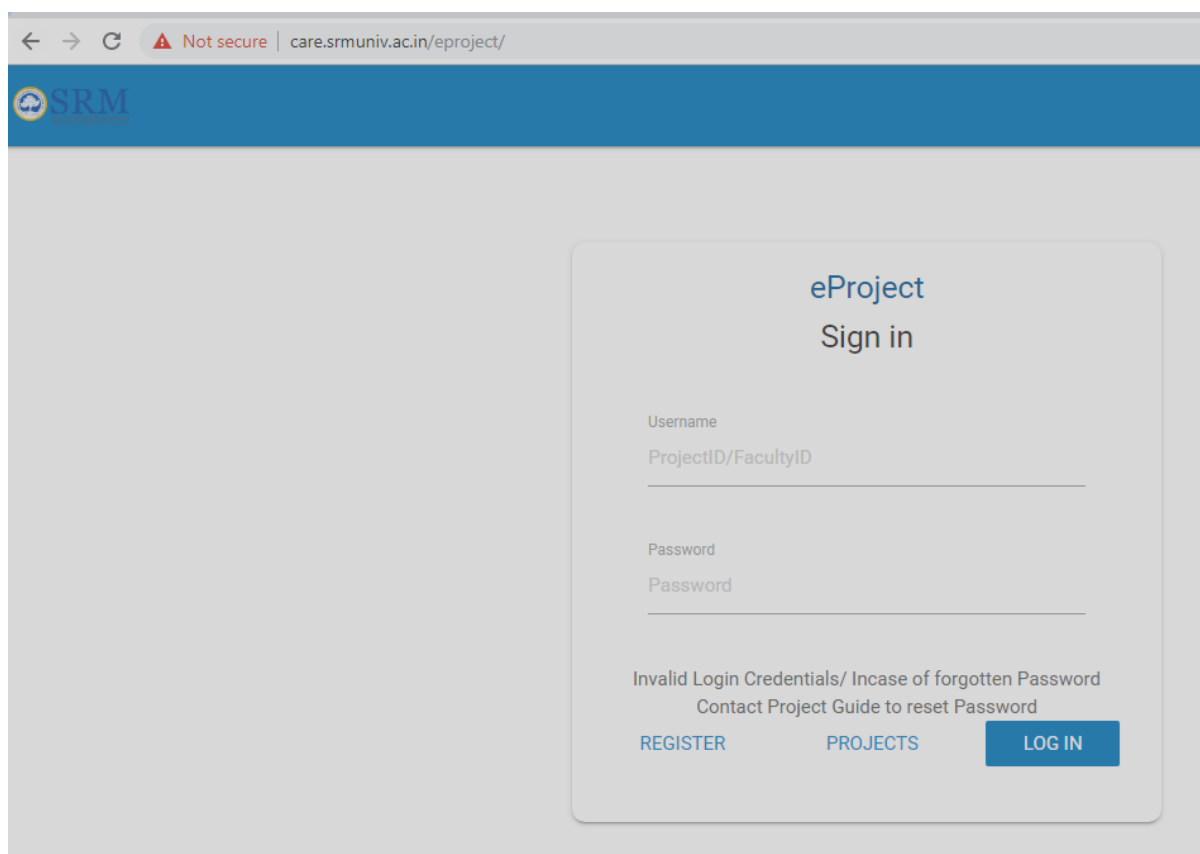
vr_week_2.pptx
[Download File](#)

33. Paperless policy

iii) Project management & online assessment

S.No	Academic Year	User Percentage
1	Year 2017-2018	100 %
2	Year 2018-2019	100 %
3	Year 2019 -2020	100 %

Proof:



The screenshot shows a web browser window with the address bar displaying "care.srmuniv.ac.in/eproject/". The page features the SRM logo in the top left corner. The main content area is a light gray box titled "eProject Sign in". It contains two input fields: "Username" (with placeholder text "ProjectID/FacultyID") and "Password". Below these fields, there is a message: "Invalid Login Credentials/ Incase of forgotten Password Contact Project Guide to reset Password". At the bottom of the form, there are three buttons: "REGISTER", "PROJECTS", and "LOG IN".