

2.3.1

The institute prioritizes a student-centric approach to create an effective teaching and learning environment. By taking into account the diverse needs of learners, the faculty ensures that every student is supported in their learning journey. Each course offered by the university explicitly outlines its objectives, outcomes, and cognitive levels, all aligned with the broader program outcomes and program-specific objectives. This transparent approach enables students to comprehend the course's focus right from the beginning of the semester. Moreover, the courses are thoughtfully designed by the university to address societal, environmental, and ethical requirements while fostering graduates' competencies in essential areas such as lifelong learning, technical skills, communication, and other relevant domains.

Experiential Learning:

As part of the curriculum, the institute provides valuable opportunities for students to gain practical experience and apply their knowledge through internships, training, industrial visits, field visits, and virtual lab simulations. As per the **Shivaji University curriculum CSBS (SHIVAJI UNIVERSITY, KOLHAPUR-Syllabus w.e.f. 2019-2020)**, it is mandatory to participate in internships, which allow them to take initiatives, make decisions, and further develop their skills. In project work, students engage in experiential learning, acquiring knowledge through working model creation. They are also required to present comprehensive reports on their projects, showcasing their understanding and application of the concepts learned.

Participative Learning:

The institute fosters a culture of hands-on learning by actively encouraging students to conduct experiments in the laboratory. These methods include engaging students in seminar presentations, poster presentations, and the completion of NPTEL courses. Additionally, faculty members organize value-added courses and invite guest lecturers to provide students with enriching learning opportunities.

To further enhance student engagement, activities like Flipped Classroom, Quizzes, Think-Pair-share and Role-Play are organized, creating an interactive teaching-learning environment where students actively participate in their own education.

Problem-Solving Methodologies:

Students are actively engaged in the creation of numerous prototypes and end products as integral parts of their projects. They are encouraged to visit industries to identify real-world problems relevant to their program. These identified problems are then assigned to student groups as mini-projects or major projects. Faculty members also provide case studies related to the courses to further enhance students' problem-solving abilities. Moreover, students are motivated to write research papers and seek publication in peer-reviewed journals, allowing them to contribute to the academic community and showcase their scholarly work.

By employing these student-centric methods, the institute ensures that students actively participate in their own learning process. Through experiential learning, participatory learning, and problem-solving methodologies, students gain practical skills, engage with real-world scenarios, and develop critical thinking abilities. These approaches contribute to a comprehensive and enriching educational experience, preparing students for future success. Project-based learning (PBL) and megaprojects are some of the methods used for problem solving.

Use of ICT Enabled Tools including online resources for effective teaching and learning process

Teachers are integrating technology into traditional modes of instruction to engage students in lifelong learning. The institute leverages Information and Communication Technology (ICT) in education to support, enhance, and optimize the delivery of education.

Infrastructure:

Each classroom is equipped with multimedia projectors, enabling faculty members to share engaging audio, video, and PowerPoint presentations. These well-equipped classrooms serve as effective platforms for delivering engaging multimedia content, such as PPTs and videos. Throughout the campus, computer labs and faculty cabins are equipped with desktops and laptops, ensuring convenient access to ICT resources for both students and teachers. Wi-Fi internet facilities are available in key areas like the library, classrooms, laboratories, seminar halls, and auditorium, enabling students to access e-resources and continuously update their skills and knowledge. During examinations, faculty members employ various ICT tools to assess students' progress. Teachers leverage desktops and laptops to effectively engage students in online classes, promoting interactive and immersive virtual learning experiences.

E-resources:

The Library makes use of various e-resources like **DELNET**, ShodhGanga, e-Shodh, Sindhu, which serve as valuable sources of information for students and faculty to enhance their knowledge and skills. Additionally, the institute invests in purchasing e-journals such as ASME and ASCE, which offer valuable insights and inputs for academic projects and research.

In light of the COVID-19 pandemic, faculty members swiftly adapted to online teaching by utilizing platforms like Zoom, Google Meet, and Microsoft Teams. These online communication tools enabled them to conduct virtual classes, ensuring continuity in education. Google Classroom served as a platform for seamless sharing of notes, assignments, quizzes, and other learning materials between faculty and students. Furthermore, faculty members maintain their own course sites where they upload detailed schedules, notes, videos, and additional resources, facilitating easy access for students.

To conduct assessments and examinations, online platforms such as MOODLE is utilized, providing interactive and engaging assessment experiences for students. The institute actively

encourages students to explore Massive Open Online Courses (MOOCs) available on platforms like Virtual Lab, NPTEL and Coursera. These MOOCs offer a wealth of knowledge and learning opportunities, empowering students to expand their horizons and acquire new skills.

By incorporating ICT-enabled tools and online resources, teachers facilitate effective teaching and learning experiences. These technologies enable interactive and engaging classrooms, provide access to a wide range of e-resources, and facilitate communication and collaboration among students and faculty members.

Sr. No	Name	Details
1	Details of ICT TOOLS available	
2	Experiential Learning	Industrial Visits, Laboratory Learning, Internships, Virtual Lab Simulation
3	Participative Learning	Group discussions, Flipped Classroom, use of drawings, posters, role-play, Google Classroom, Flipped Classroom.
4	Problem-Solving Methodologies	Project Based Learning (PBL), Mega Projects



EN6839

Dr. D. Y. PATIL PRATISHTHAN'S
COLLEGE OF ENGINEERING

Affiliated to Shivaji University, Kolhapur.
Approved by AICTE (New Delhi), Govt. of Maharashtra, DTE Mumbai.

Hon. Dr. Sanjay D Patil
PRESIDENT
Hon. Satej D Patil
VICE PRESIDENT
Dr. Vish P Kallimani
PhD in CSc, Fellow UK.
PRINCIPAL

Ref. No. : DYPCOE/20

Date: 24 / 11 / 2021

To,
HR,
Lokmat Kolhapur.

Subject: Asking for permission for industrial visit.

Hello sir,

I am writing this on behalf of the CSE dept. at Dr. D. Y. Patil Pratishthan's college of Engineering, Salokhenagar, Kolhapur, seeking your permission to conduct an industrial visit to your industry situated at Shiye, Kolhapur on 30/11/2021.

There would be 100 students and 2 faculty members. This visit will help our students to understand various new technologies in dept. The purpose of this visit is to create industry environment awareness among students.

Kindly grant us permission for the industrial visit and make necessary arrangements for the same. We look forward to a positive reply from your side.

Thanking you,

Prof. Mrs. Sneha S. Ghewari

Department of Comp. Sci. & Engg.



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VICE PRESIDENT
Dr. Vish P Kallimani
PhD in CSc, Fellow UK.
PRINCIPAL

No. : DYPCOE/20

Date: 26 / 11 /2021

Industrial Visit Notice

All the students of S. Y. CSE are hereby informed that, an Industrial Visit to Lokmat Office is planned on 30th Nov., 2021 at 01.00 pm. Students need to be present in college at sharp 12.00 pm.

Mrs. S. S. Ghewari

Faculty Coordinator

Dr. S. R. Arlimatti

HOD, CSE

Some images of the industrial visit

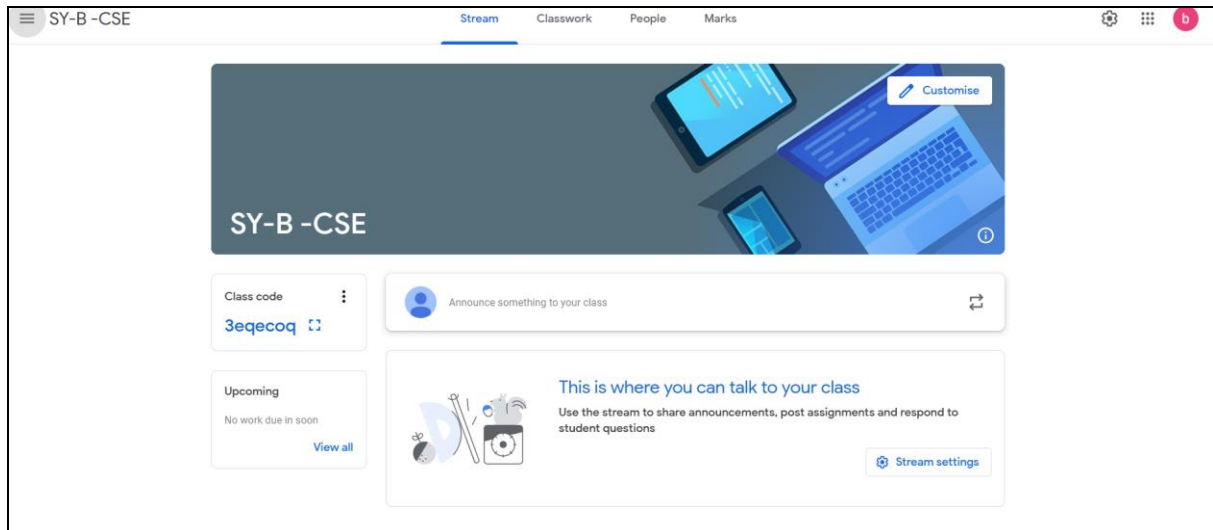


Image 1: Students understanding the working about different modules

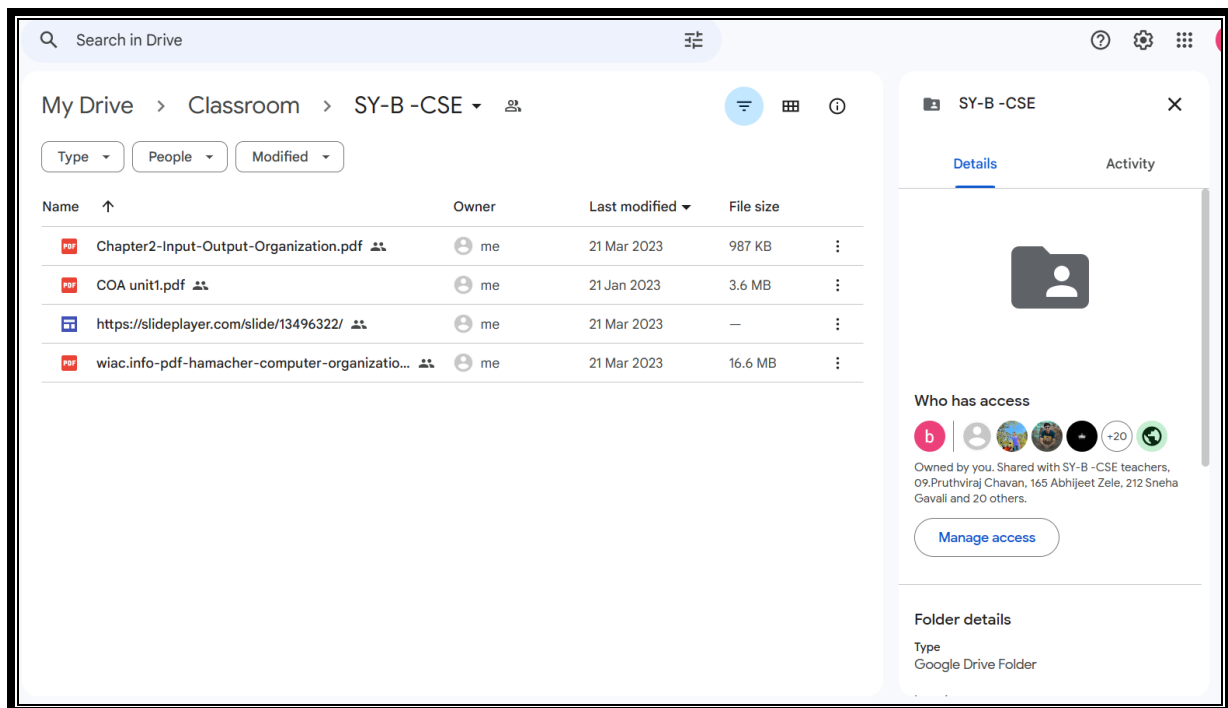


Image 2: Students attending one informative session at Lokmat

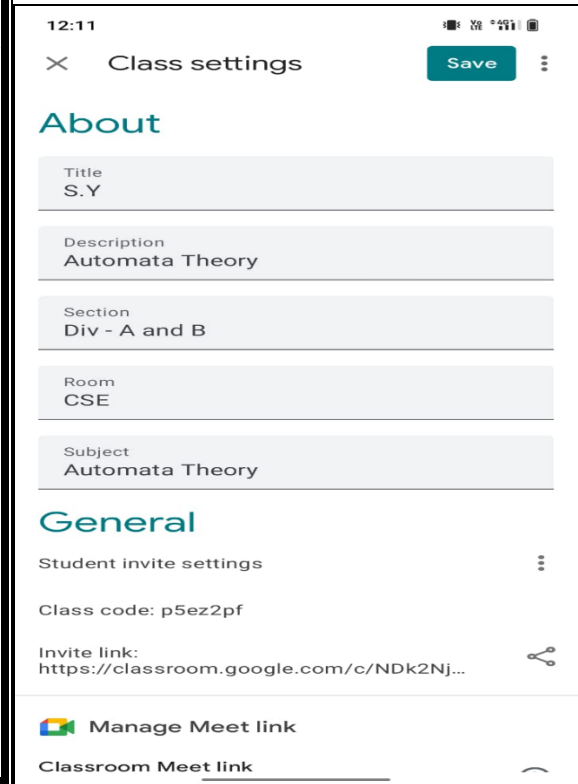
Google Classroom



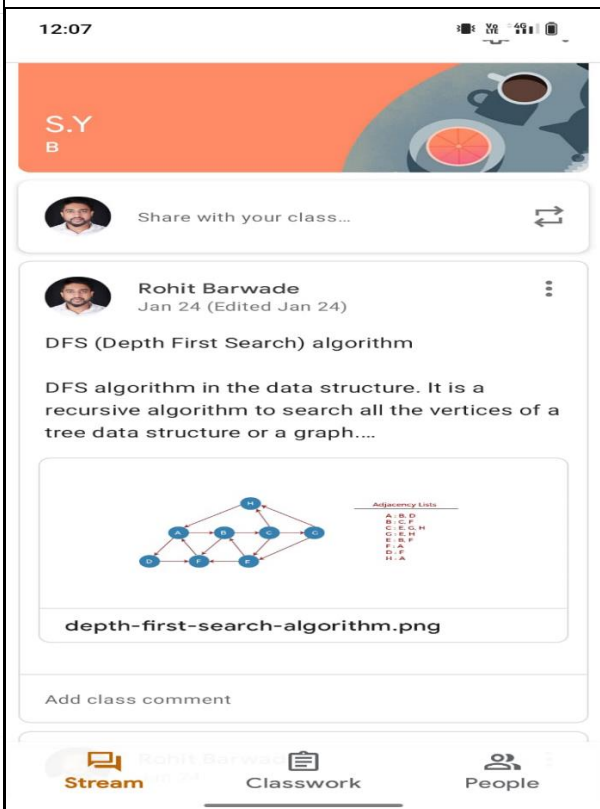
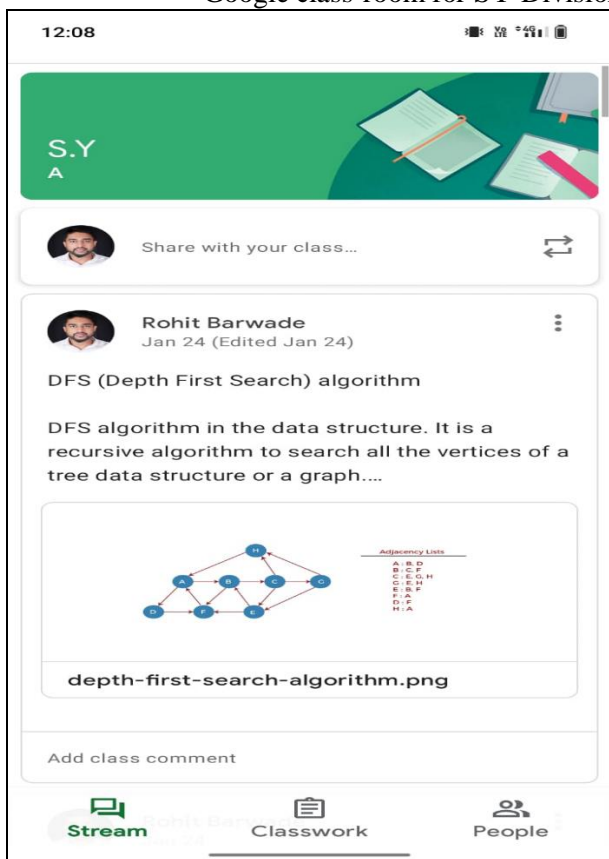
Google class room for SY-DIV-B, subject-computer organization and architecture.

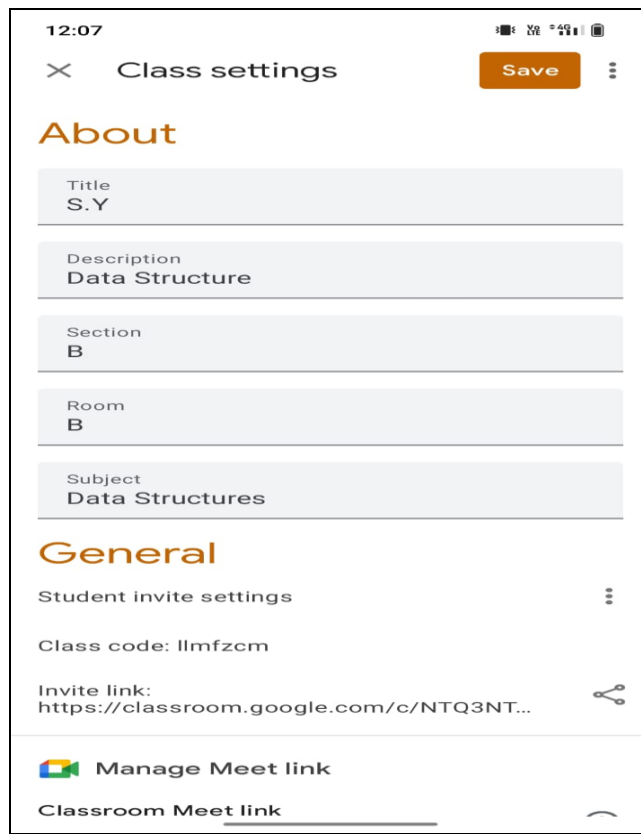


. Google class-room for SY-div-B, subject-Computer Organization &Architecture-Uploaded Notes and book

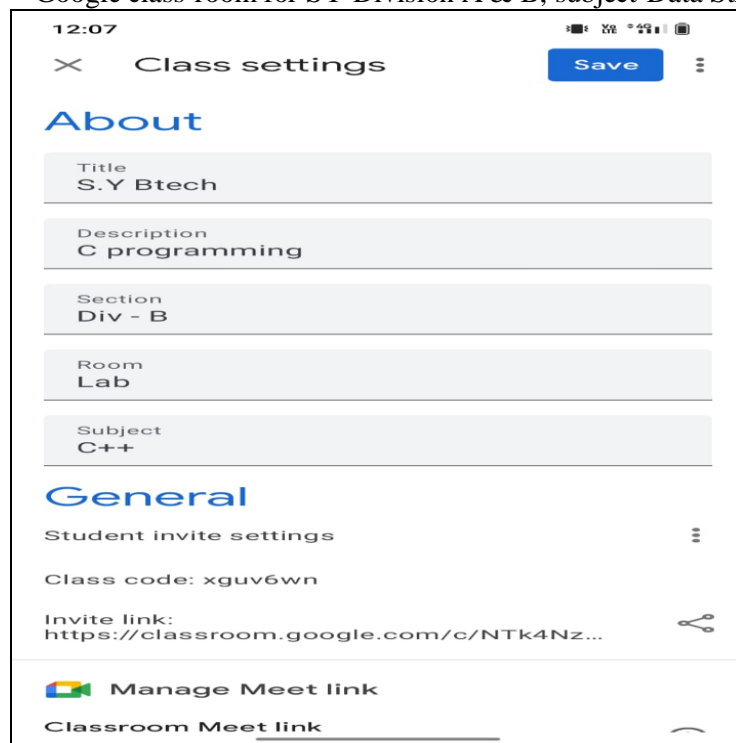


Google class-room for SY-Division A & B, subject-Automata theory

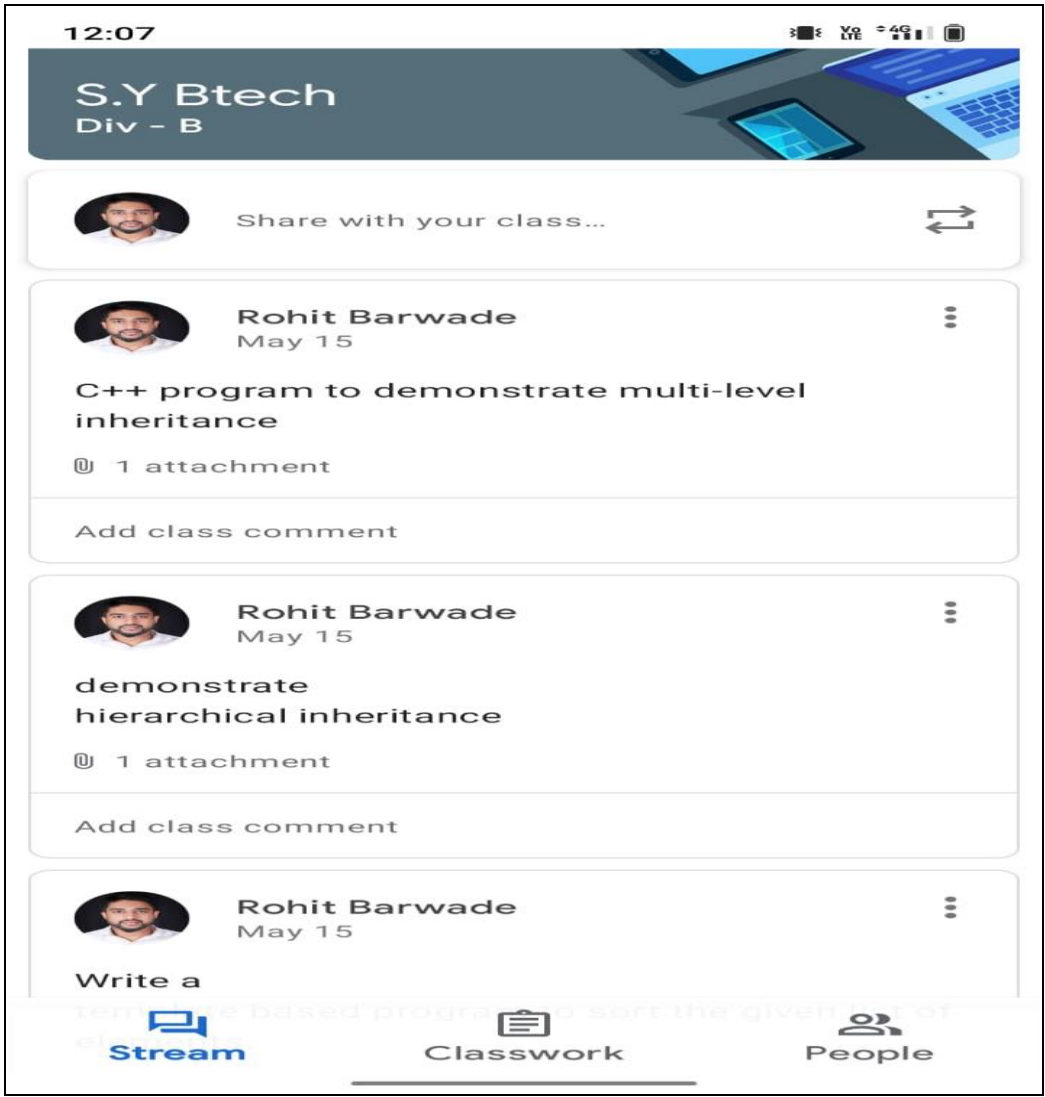




Google class-room for SY-Division A & B, subject-Data Structure



Google class-room for SY-Division A & B, subject-Object Oriented Programming



Google Class Room Setting

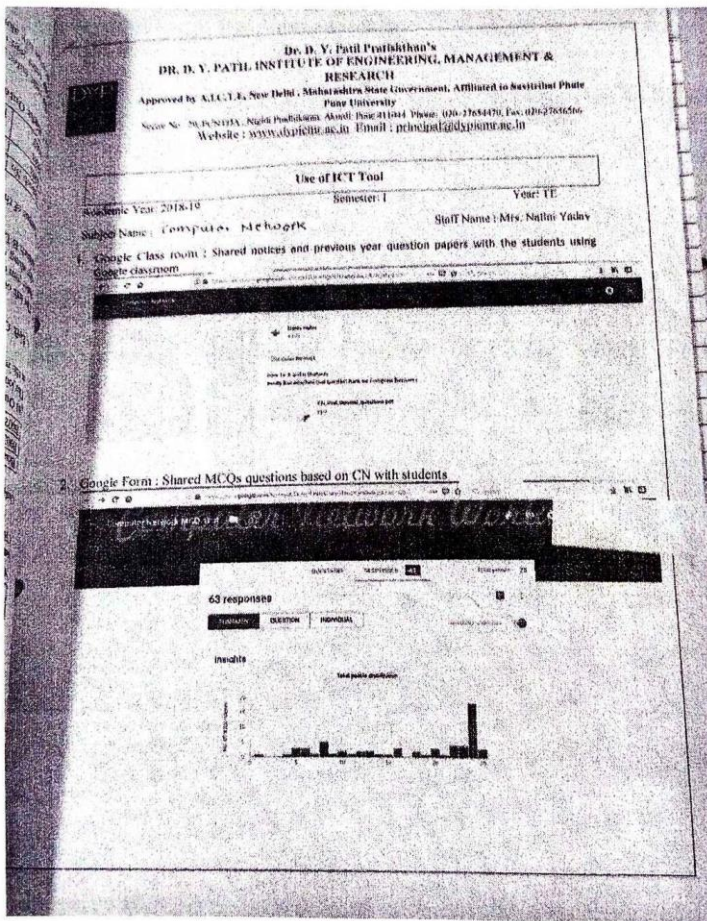


Use of ICT Tool

Department:
Academic year:
Class:

Date:
Semester:
Division:

Mention any ICT Tools used by you in for your subject in format as shown in below sample.



Shinde

Prepared By :
(Name & Sign)

Shinde

Verified By: HOD



Dr. D. Y. Patil Pratishthan's College of Engineering
Salokhenagar, Kolhapur

Doc. No: DYP-ADMN-FRM-02

Revision No. 00

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Revision Date:01/07/2019

computer Science department
Use of learning Management system

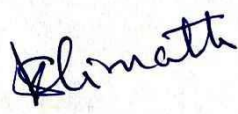
Use of Google Meet

Name of Staff	Name of subject	Google meet work	Google meet link
Mrs. Snehal S Patil	Internet of Things	Slides on IOT	https://meet.google.com/jdp-abmc-mff
Mrs. Snehal S Patil	Internet of Things	Slides on IOT	https://meet.google.com/pgn-tsu-h-cxi

Use of Zoom Meeting

Name of Staff	Name of subject	Zoom work	Meeting link
Mrs. Snehal S Patil	Internet of Things	Slides on IOT	https://us04web.zoom.us/j/75240578661?pwd=BxZMwckE3cBeAnSz4OG0xIvSwt3EhV.1
Mrs. Snehal S Patil	Internet of Things	Slides on IOT	https://us04web.zoom.us/j/76363291741?pwd=znjIv7k8rGunOpa2IUvu3aBkt90OrV.1


Prepared By


H.O.D

Smart meter

A smart meter is defined as an electronic device that records consumption of electric energy, water or gas in fixed intervals such as of an hour or less and communicates that information back to the utility for monitoring and billing. The meters may be of gas type, thermal type or ultrasonic type.

Smart meters are expected to be part of smart cities.



(www.optimaprediction.com)

The smart meters enable two-way communication between the meter and the central system.

- Smart meters can gather data for remote reporting and can provide information on actual time of use.
- Smart meter sends the information back to the utility by wireless signal such as radiofrequency or microwave radiation signal instead of having a utility meter reader come to the place and manually record it.
- Such an advanced metering infrastructure differs from traditional automatic meter reading in as it enables two-way communications with the meter.
- Smart meters may be of gas type, thermal type or ultrasonic type

SMART METERS AND ENERGY SAVING

CONCEPT

Smart meters do not save energy themselves but consumers do.

The purpose of smart meters is to change the behaviour of the consumers. It is hoped that the consumers would save energy through awareness and the estimated bills.

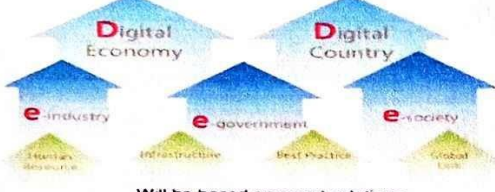
HOW YOUR SMART METER HELPS YOU TAKE CHARGE OF YOUR POWER BILLS



(www.switchon.vic.gov.au)

Smart cities concept

<http://pt.slideshare.net/bhawnakandari>



Will be based on smart solutions

Smart Solutions



Smart grid

Smart grid is the digital and Wi-Fi enabled power meters that enable communication between the appliances in the home or office with the power provider.



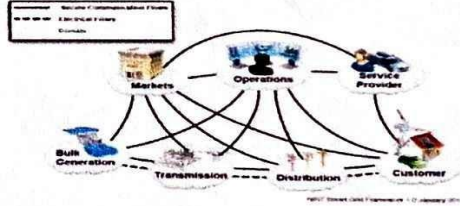
Smart meters and smart cities

Smart meters are likely to be the part of all smart cities being developed in India also



(in.noc.com)

OSS layer for Smart Meter



Smart metering OSS layer



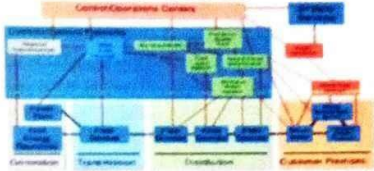
Smart meters

- The smart meters enable two-way communication between the meter and the central system.
- Smart meters can gather data for remote reporting and can provide information on actual

Electric Utility Communications Architecture



Electric Utility Communications Architecture



AMI top priority in Smart Grid



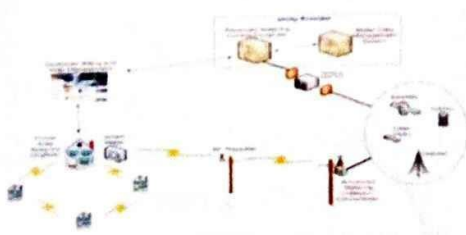
Advanced metering Infrastructure



Advanced metering Infrastructure



AMI topology



Metering Infrastructure Blue Print

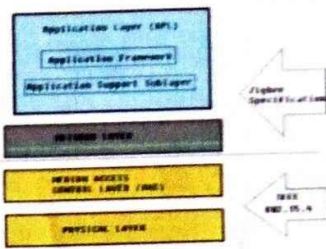
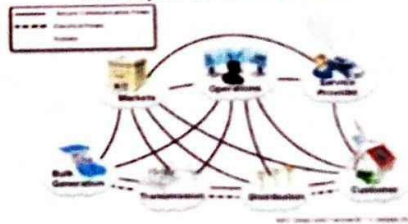


Fig. 1 - Zigbee Architecture (Zigbee Stack)

Foundation Layers in Zigbee Architecture

This Layer is defined by IEEE 802.15.4 standard. Both Physical layer and Medium Access Control (MAC) layers act as foundation layers for Zigbee Architecture.

OSS layer for Smart Meter



Smart metering OSS layer



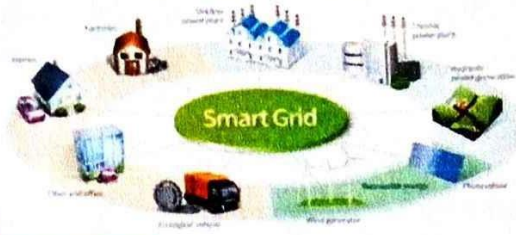
Electric Utility Communications Architecture



2. WEARABLES

- The second hot area in IoT.
- Most of them connected with Smart phones.
- Devices worn on wrist
Ex. Smart Watches- SAMSUNG GEAR
- Devices put on like a spectacle
Ex. Google Glass
- Smart garments.
- Skin coloured Tattoo/patch like sensors.

SMART GRIDS



WEARABLES



5. INDUSTRIAL IoT

- Aims at improving productivity and efficiency in businesses.
- Many market researches such as Gartner or Cisco see the industrial IoT as the IoT concept with the highest overall potential.
- However its popularity currently doesn't reach the masses like smart home or wearable do.

3. SMART CITY

- Smart city includes traffic management to water distribution, to waste management, urban security and environmental monitoring.

6. CONNECTED CARS

- Applications can be separated into two categories:
1. In vehicle applications
 2. V2V (Vehicle to vehicle) applications

THE CONNECTED CAR

3. SMART CITY

- Smart city includes traffic management to water distribution, to waste management, urban security and environmental monitoring.
- Many Smart City solutions have promised to alleviate real pains of people living in cities these days.
- IoT solutions in the area of Smart City solve traffic congestion problems, reduce noise and pollution and help make cities safer.

APPLICATIONS

The IoT Applications Ranking

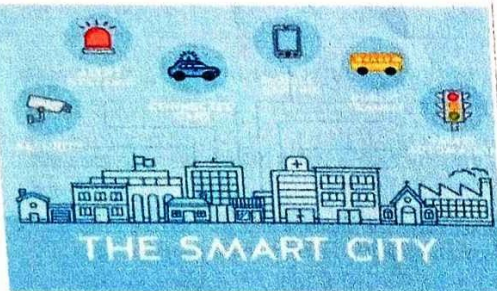
Applications	Overall popularity (and emerging examples)	Scores
1 Smart homes	Smart homes 50%	5.4 5.4 5.4
2 Wearables	Wearables 43%	5.2 5.2 5.2
3 Smart City	Smart City 34%	5.1 5.1 5.1
4 Smart grid	Smart grid 28%	5.0 5.0 5.0
5 Industrial internet	Industrial internet 25%	4.9 4.9 4.9
6 Connected Car	Connected Car 19%	4.8 4.8 4.8
7 Connected health	Connected health 8%	4.7 4.7 4.7
8 Smart retail	Smart retail 7%	4.6 4.6 4.6
9 Smart quality control	Smart quality control 4%	4.5 4.5 4.5
10 Smart farming	Smart farming 3%	4.4 4.4 4.4

1. SMART HOMES

- Smart homes filled with connected products are loaded with possibilities to make our lives easier, more convenient, and more comfortable.
- Ranks as highest Internet of Things application on all measured channels.
- The total amount of funding for Smart Home start-ups currently exceeds \$2.5bn.
- Includes prominent start up names such as Nest as well as a number of multinational corporations like Philips, Haier, or Belkin.

4. SMART GRIDS

- Smart grid uses information about the behaviours of electricity suppliers and consumers in an automated fashion.
- This technology helps in:
 1. Deliver power more efficiently
 2. Improve operations
 3. Reduce emissions and management costs



Function of Network Layer in Zigbee Architecture

Network Layer in Zigbee architecture is responsible for the following functions:

- Initiation of a network
- Assigning node addresses
- Configuring of new devices
- Providing secured transmission

Application Layer in Zigbee Architecture

The Application Layer in Zigbee architecture consists of sub layers namely:

- Application Support Sub Layer
- Application Framework

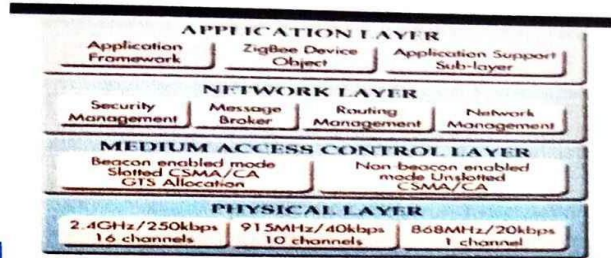


Fig. 2 – Zigbee Architecture (Zigbee Stack) Functions

Medium Access Control (MAC) Layer in Zigbee Architecture

This layer provides interface between the physical and network layers. It defines how multiple 802.15.4 radios operating in the same area will share the airwaves. Data handling and data management are the two main functions of the MAC layer.

Physical Layer in Zigbee Architecture

The physical and electrical characteristics are defined by the Physical Layer. This layer is responsible for data transmission and reception. Mapping bits of information and permits them to travel through the air by modulation and spreading techniques which is the basic task of physical layer.

Function of Physical Layer in Zigbee Architecture

Physical Layer is responsible for the following functions:

- Activation and deactivation of transmission and reception.
- Channel selection and its assessment.
- Sending and receiving of packets.
- Energy detection within the channel.

6. CONNECTED CARS

Applications can be separated into two categories

1. In vehicle applications
2. V2V (Vehicle to vehicle) applications

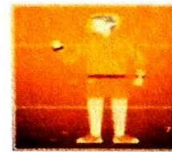


7. CONNECTED HEALTH

IoT in Healthcare is a heterogeneous computing, wirelessly communicating system of apps and devices that connects patients and health providers to diagnose, monitor, track and store vital statistics and medical information.

Few examples of IoT in Healthcare

- Headsets that measure brainwaves
- Clothes with sensing devices
- BP monitors
- Glucose monitors
- ECG monitors
- Pulse oximeters
- Sensors embedded in medical equipment, dispensing systems, surgical robots and device implants
- Any wearable technology device



8. SMART RETAIL

- Focuses on 2 areas
 1. Improving the customer experience
 2. Optimizing supply chain operation

Implementation of Student-Centered Learning

Following Teaching-Learning methods were used

1. Demonstration/Group presentations
2. Implementing theory concepts on actual problem statements
3. Industrial Visits

1. Demonstration/ Group Presentations:

This is collaborative learning strategy which gives opportunity to students to choose the topic of their choice from the syllabus or out of syllabus. For this activity group of 4-5 students is formed asked to choose the topic of their choice. Students have demonstrated or presented the topic of their choice to the class. For demonstration they have prepared programs and ppts.



Image 1: Students explaining the topic they have prepared to other students



Image 2: Students explaining the concepts through program implementation to other students

2. Implementing theory concepts on actual problem statements :

Under this learning strategy, students apply theory concepts on the actual problem statements. Under this point we have given one assignment to students, in this assignment students have to apply different project management concepts and models (e.g. different constraints, identifying stakeholders, knowledge areas, three sphere model) on the final year project they are working upon.

3. Industrial Visits:

Under this learning strategy, we have arranged industrial visits to different industries and offices where they will see the actual implementation of the different theory concepts they are learning in their curriculum

Advantages of Student -Centered teaching

- Students effectively learn communicative and collaborative skills through group work.
- Students learned to complete tasks independently.
- Students interact with one another and participate actively.
- Learning skills of the student are developed.
- The roles of instructor became facilitative rather than didactic.
- The responsibility for learning shifts from the instructor to the students.
- Student-centred teaching method uses assessment as a part of the learning process.
- Learning becomes interesting and enjoyable.
- students retained more of the concepts that they chose to address

Challenges Faced

- Sometimes group work can become problematic as ^{few} students prefer to work alone.
- When students are working on different stages of the same topic then it becomes difficult for teacher to manage students.
- Some students may miss some information because the teacher deliver instructions to particular group of student

Conclusion:

After adopting this methodology, it was identified that ^{generally} students get more enthusiastic, motivated and curious to learn new things. Group activities encouraged them to demonstrate creativity, communication, and collaboration. Students became capable of accepting more responsibility for their own learning. As ~~future~~ teachers it is our responsibility to care about our student's effective learning and try to teach them from all different aspects.



Dr. D. Y. Patil Pratishthan's College of Engineering
Salokhenagar, Kolhapur

Doc. No: DYP-ADMN-FRM

Revision No. 00

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Revision Date:01/07/2019

Student Centered Teaching- Learning

Sr. No.	Class	Course	Activity Name	No. of Students participated
1	S. Y. CSE.	Programming Languages	Code-up Community	40

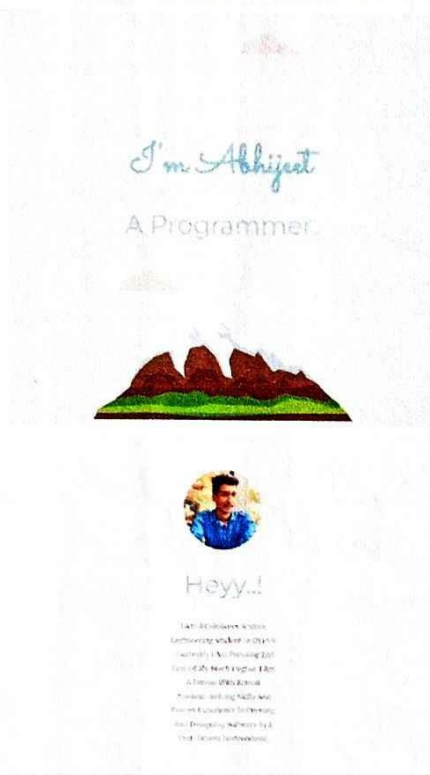
Code-up Community:

Second year CSE students have created one group named as Code-Up community.

Under this activity, group members meet every day after college hours; learn different programming languages using paid and free online courses, tryout different assignments. They also prepare different topics and explain those concepts to their fellow group members. This activity helps students to enhance their programming skills, problem solving ability and logical thinking approach.

Prepared By:

HOD (CSE)



My Skills

Web Development
 I Have Just Started The Web Development. Currently I Am Trying To Make Websites Like Personal Cv. This Web Page Is One Of Them

Traveling
 I Like Traveling Through Various Ancient Places And Where I Can Find Peace

Get In Touch

I'm Currently Available For Freelance Work.

If You Have A Project For Me, Mail Me At kumbharabhiik@annauniv.edu Or kumbharabhiik@annauniv.edu. Thank You To You.

[CONTACT ME](#)

© 2022 Abhijeet Kumbhar

Image 3: Pages created by students under Code-up community

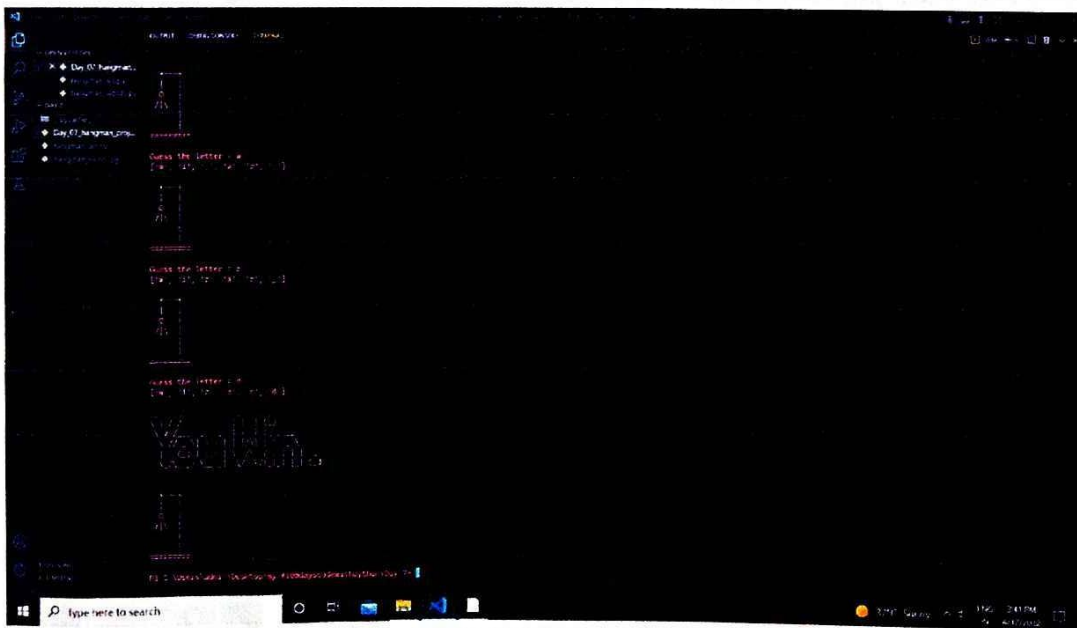


Image 4: Small game created by students under Code-up community

Date	Name of Stud Staff	Aud	Staff	Time In	Time out	Sign.	
1-2-22	Snehal S. Ghare	✓		11:15	1:15	Snehal	25
-11-	Prerana A. More	✓		-11-	-11-	Prerana	25
-11-	Swarali Moraskar	✓		-11-	-11-	Swarali	25
-11-	Haashvardhan v. Desai	✓		-11-	-11-	Haashvardhan	25
-11-	Abhishhek Leamble	✓		-11-	-11-	Abhishhek	25
-11-	Leuldeep Leamble	✓		-11-	-11-	Leuldeep	25
-11-	Sahil K. Chougale	✓		-11-	-11-	Sahil K. Chougale	
-11-	Omkar V. Yerridkar	✓		-11-	-11-	Omkar	
-11-	Shivam L. Chougale	✓		-11-	-11-	Shivam	
-11-	Aurash V. Rattad	✓		-11-	-11-	Rattad A.V.	2
-11-	Aniket H. Chauhan	✓		-11-	-11-	Aniket	
-11-	Laxmi Shinde	✓		-11-	-11-	Laxmi	
-11-	Nilesh J. Harpore	✓		-11-	-11-	Nilesh	
-11-	Aditya J. Chougale	✓		-11-	-11-	Aditya	
-11-	Sabiya A. Shaikh	✓		2:00	4:00	Sabiya	
-11-	Samrudhi R. Pawar	✓		2:00	4:00	Samrudhi	
-11-	Ankita A. Pawar	✓		2:30	3:40	Ankita	
	Rojina A. Bagwan	✓		2:30	3:40	Rojina	
	Aditya K. Patil	✓		2:30	4:00	Aditya	
	Abhijeet A. Kumbhar	✓		2:30	4:00	Abhijeet	
	Vishal D. Dange	✓		2:00	3:15	Vishal	
	Prathamesh D. Patil	✓		2:00	4:00	Prathamesh	
	Gaurav Jadhav	✓		1:00	5:00	Gaurav	
	Rushikesh Pendharkar	✓		4:00	5:00	Rushikesh	
	Sai Pawar	✓		4:00	5:00	Sai	
	Aniket Gavate	✓		4:00	5:00	Aniket	
	Prachal Ghodke	✓		-11-	-11-	Prachal	
	Dnyaneshwar Gadgil	✓		4:00	5:00	Dnyaneshwar	
	Ashish Patil	✓		-11-	-11-	Ashish	

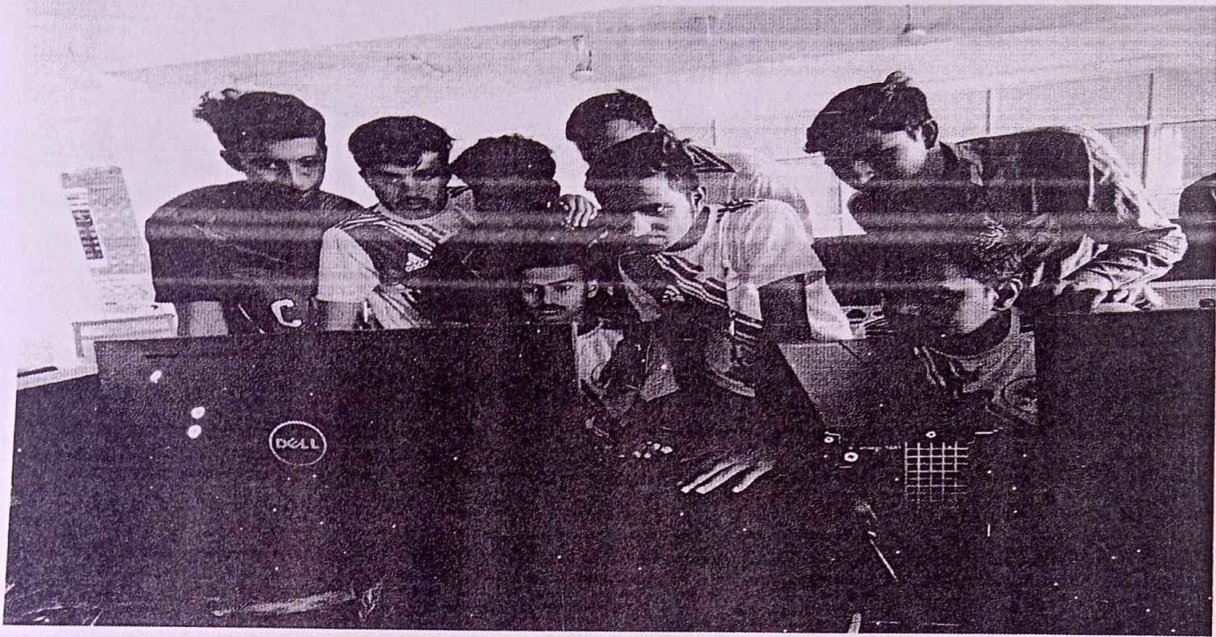


Image 1: Codeup Community activities under student Centered teaching-Learning

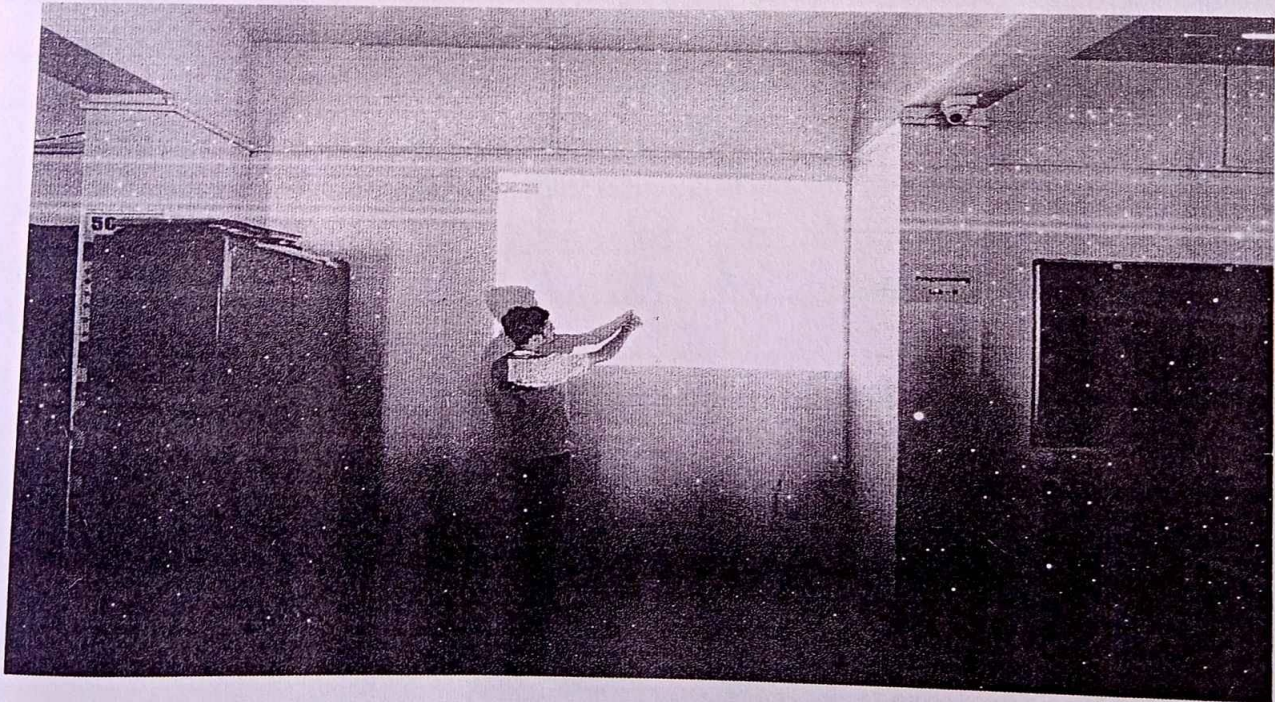


Image 2: Codeup Community activities under student Centered teaching-Learning

Annual Report 2022

Institute : **Dr.D.Y.Patil pratishthans college of Engineering Salokhenagar Kolhapur**

Region : **Pune**

NCID : 144

Month	Workshops	Participants Trained	Usage
October	0	0	0
November	11	320	650
Total	11	320	650



Nodal Coordinator Signature



Head of Institute/Principal Signature



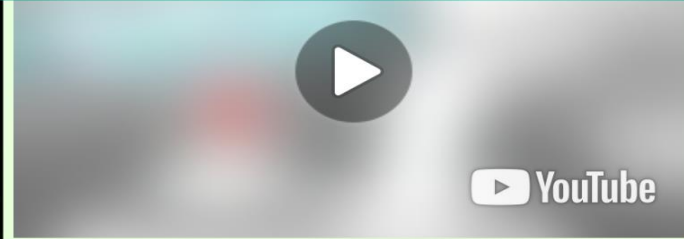
Dr. D. Y. Patil Pratishthan's
College of Engineering
Salokhe Nagar, Kolhapur

1. Scan and Upload the duly signed ORIGINAL SOFT COPY of this report.
2. Keep the HARD COPY with you in the Virtual Labs file for the record.



FY B.TECH DIV-A

only admins can send messages



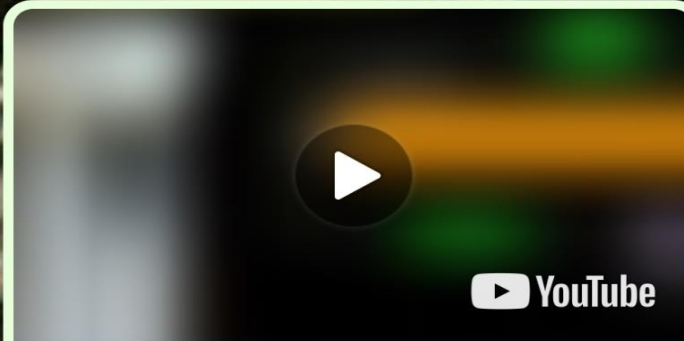
How does a CFL Lamp work? | CFL lam | working function of CFL lamp

Hi,Welcome to the 'Let's Grow Up' Youtube cha...
www.youtube.com

Compact Fluorescent Lamp (CFL)

<https://youtu.be/AYsadxI0UKk>

9:24 pm ✓



fluorescent lamp | fluorescent lamp working in hindi | fluorescent bulb | dis...
fluorescent lamp | fluorescent lamp working in ...
www.youtube.com

Fluorescent Lamp (animation for understanding)

<https://youtu.be/vI0NXZ>



Message



YouTube Video

Flipped Classroom





**Dr. D. Y. Patil Pratishthan's College of Engineering
Salokhenagar, Kolhapur**

Doc. No: DYP-ADMN-FRM

Revision No. 00

Page 1 of 1

Revision Date:01/07/2019

Notice for IoT Experiments CSE dept AY-2021-22

Date: 17/09/2021

NOTICE

All the students are hereby informed that, different IoT kits are available at department for student use. Make use of all these kits in different IoT experiments. This will help you to understand the subject very well.

After completing IoT experiments, if any student or group of students is willing to work on any IoT project, staff will help them in their project. After completing the project student need to submit the summary to dept.

List of Experiments:

1. All LED experiments
2. Automatic lights ON/OFF
3. Automatic door open/close
4. Home automation
5. Display board

Prepared By:

HOD (CSE)



COVID-19 PREVENTION SYSTEM

The proposed solution is an IoT based embedded, which tries to avoid the above mentioned problems by providing a face mask detection system. In this system we are also providing a temperature detector, a pulse oximeter and a RFID contactless unlocking system. Why IoT? The Internet of things describes physical objects that are embedded with sensors, processing ability, software, and other technologies that connect and exchange data with other devices and systems over the Internet or other communications networks. In this project, the COVID-19 Prevention System helps people and organizations avoid the following various problems:

- i. Reduce the infection of corona virus.
- ii. Prevents the spread of COVID-19 from person to person.
- iii. Contains various sensors and peripherals which can trigger the COVID-19 symptoms in a person.
- iv. It also comprises of contactless unlocking of the gateway for the employees in an organization.



Image 1: Testing the code

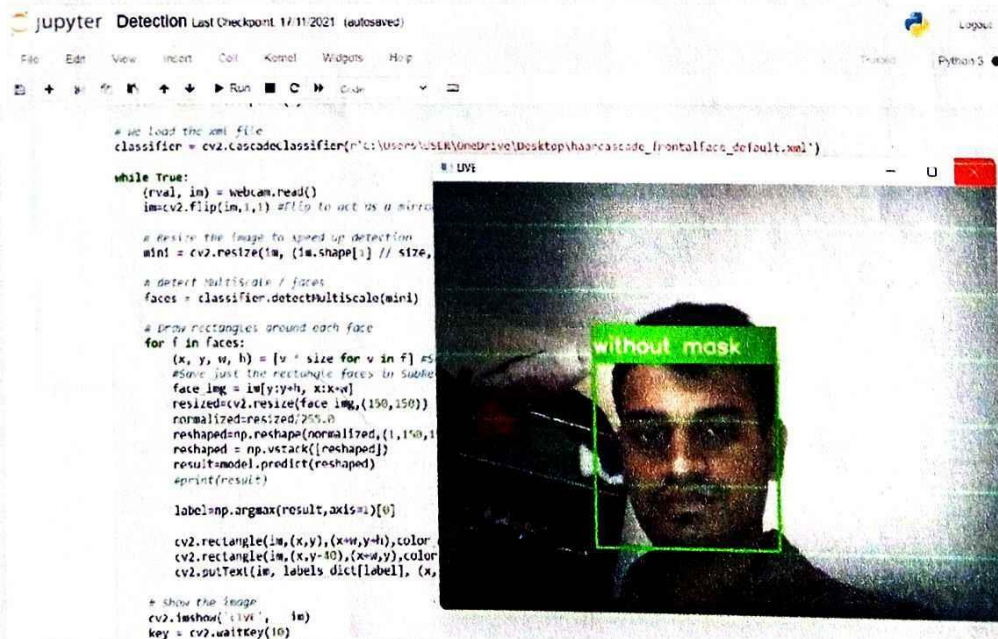


Image 2: Testing the code

Connections and Circuit Diagram

Interfacing MLX90614 with the Arduino UNO

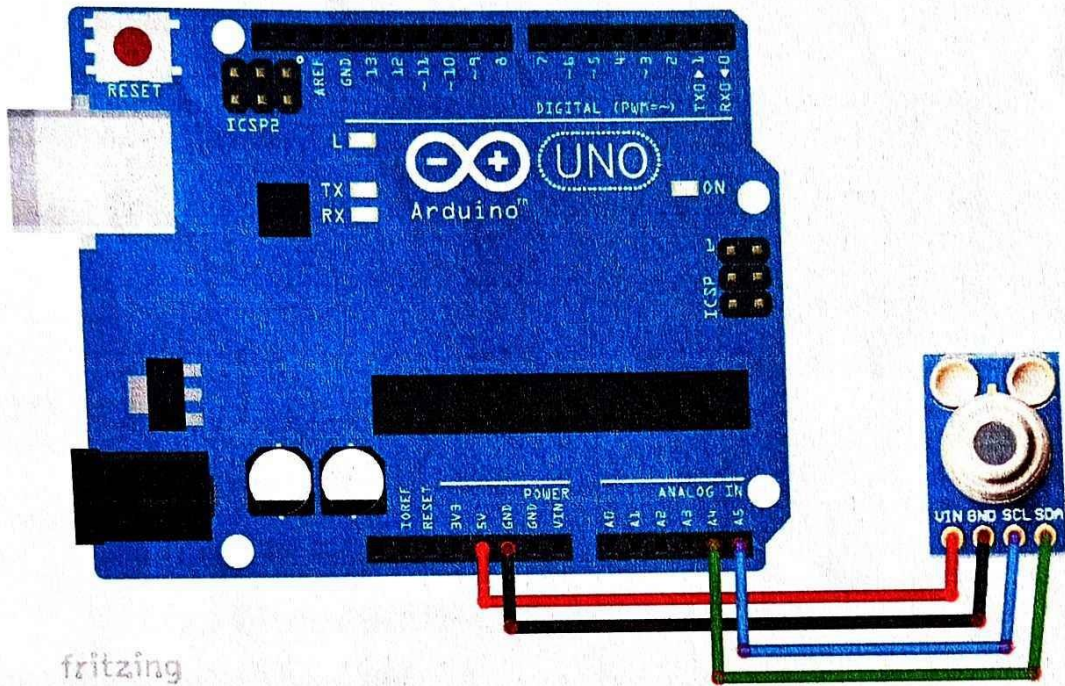


Figure 1: Interfacing MLX90614 with the Arduino UNO

Interfacing MAX30100 with the Arduino UNO

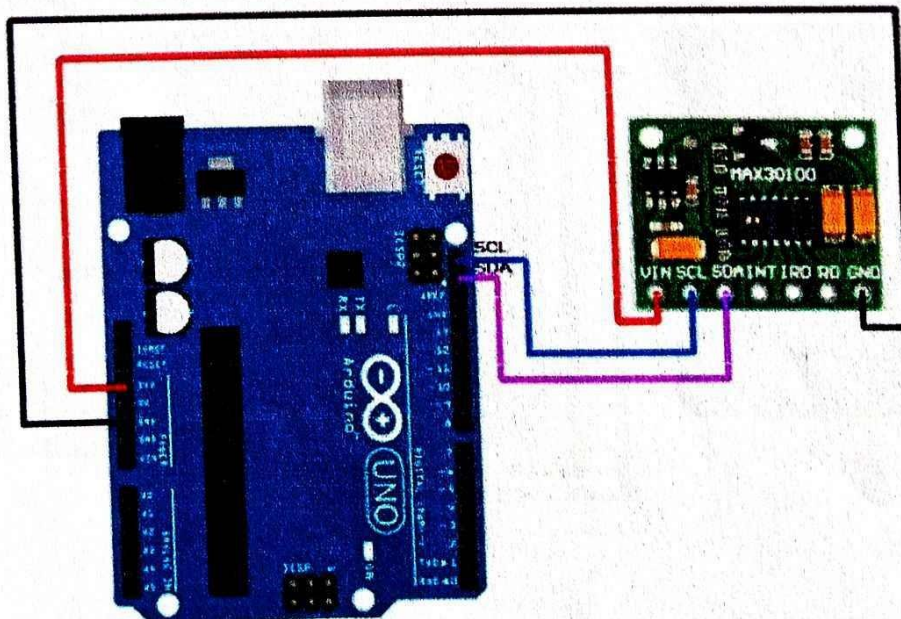


Figure 2: Interfacing MAX30100 with the Arduino UNO

Interfacing RC522 with the Arduino UNO

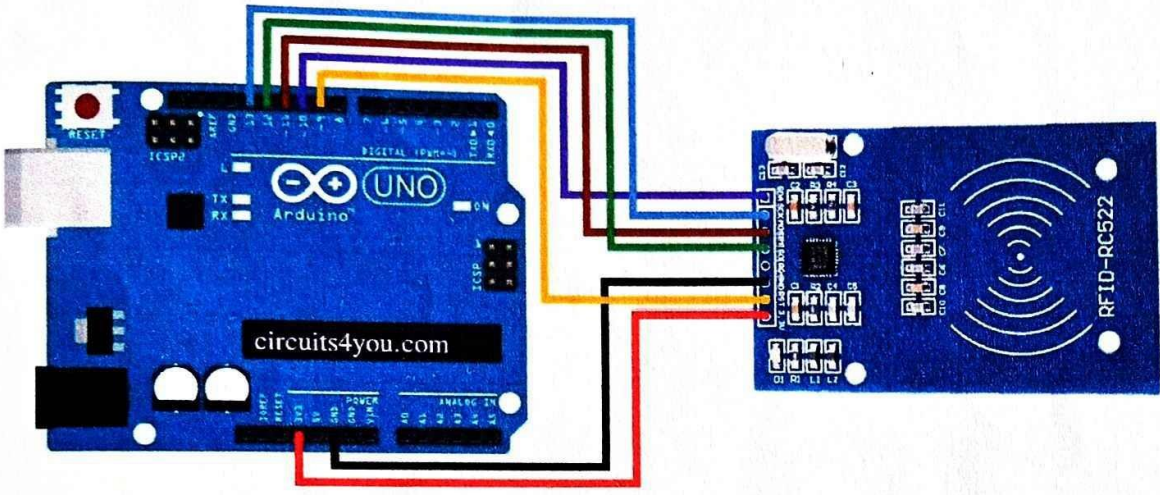
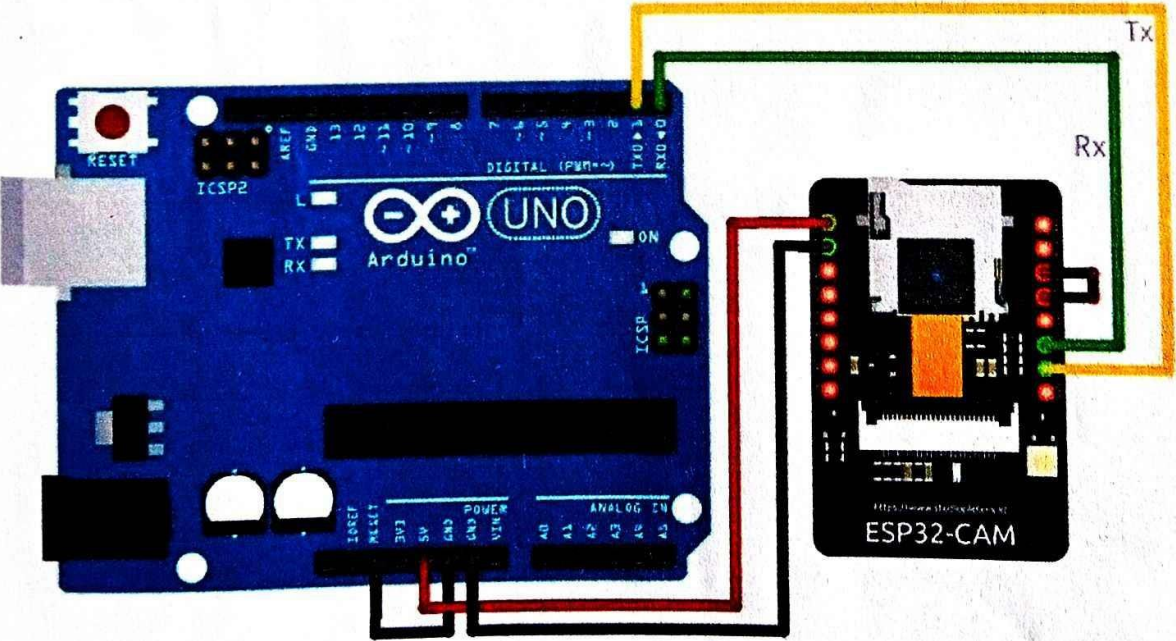


Figure 3: Interfacing RC522 with the Arduino UNO

Interfacing ESP32-CAM with the Arduino UNO



fritzing

Figure 4 : Interfacing ESP32-CAM with the Arduino UNO

No:- 69, 08, 15,

Date _____
Page _____

Project Title :- "Sorting Algorithm Visualizer"

Project Number :- '08'

Q1) Different Project Constraints of Your Project?

1.) Scope :- a) The main idea behind our project is to make the Algorithm Understanding and Explaining easy & User friendly

b) Algorithm Visualizer focuses on the user's requirements and brings out the desired output in the form of visual representation.

c) User can enter his own array and select the desired algorithm to be executed and can see the actual execution of the procedure on the screen.

2.) Cost :- Low Cost.

3.) Time :- The time required to complete our project we required about 6 months period.

4.) Quality :- The quality of our project depends on the user choice. Because we have given user friendly UI to our project.
- Which Sorting Algorithm user selects.

- 5.) Risk : → - The main Risk of Our Project is Entries given by the User.
- The how Entries given by User for Sorting. The Visuals will be Clean.
 - The number of Entries Increases. The Visualization process will get difficult to Understand.

6.) Benefits : →. ~~The~~ Through this Project the learner & Teacher's will get clear Concept of How the Actual Background Sorting is done with respect to Books.

2.) Enlist Different Stake Holders in Your Project ?

→ As Our Project does not require any high Amount of Investment, So the main Stake holders of Our project are :-

- 1.) Teachers
- 2.) Students.
- 3.) Developer.
- 4.) learners.
- 5.) Business.
- 6.) Computer Programmer.

Q3.) Any Tools or Techniques You are Using?

Front End :-> CSS, HTML,

Backend :-> Java, ~~Python~~ Python.

Q4.) Explain Your Project as per 3 sphere Model of Organization?

1.) Business :-> Sorting is a common operation in many applications, and efficient algorithm to perform it have been developed.

The most common uses of sorted sequences are.

- Making lookup or search efficient
- Making merging of sequences efficient
- Enable processing of data in a defined order.

2.) Organization :-

3.) Technology :->

FrontEnd :- CSS, HTML.

BackEnd :- Java, Python.

Q5) Which Organizational Structure You have for Your Project ?

→

We have used functional Organization and distributed the Project Work according to the Skills they have.

1) Project Title -
ERP For ERP (Enterprise
Resource Planning for Evaluating Rating Perfor)

Project Number - 10

2) Project Constraints.

i) Cost -

- a) electricity bill required for 4 laptops.
- b) learning new technologies for our project.

ii) Scope -

- a) evaluation of employee's performance based upon their tasks.
- b) if performance is low then they are being suggested to learn some courses and to polish their knowledge.

iii) Quality -

customer's requirement is to calculate performance of the employee. TPII now we have fulfilled few requirements.

iv) Time -

total time required is 7 months.

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iv) Time -

total time required is 7 months.

3) Enlisting the stakeholders -
Prime stakeholders are all the organizations that require an ERP system to calculate performance of the employees. Apart from that 4 members that are working on this project.

4) Tools or techniques used in project are -

- ① Integration management used for selecting and managing methodologies required for project.
- ② Scope management used to decide breakdown structure of project and distribute workload.
- ③ Time management used to evaluate time required for each isolated module.
- ④ Risk management used for ranking risks and registering in the system.
- ⑤ Communication management is done by achieving SCRUM and conducting monthly meetings, updating daily work.

5) 3 sphere models -

Business -

As such this project won't cost college and students. It will take 7 months for this project to get implemented.

Organizations -

With this project employees will be able to get more time for developing their technologies and brushup their knowledge if they are lacking in their performance.

Technology -

Extra hardware technologies are not required apart for digital device.

It will be in form of web application that can be easily accessed.

6) Organizational Structure.

ERP for ERP consist of Projectized organization structure. The design is such that Admin is on the top of the hierarchy & has full powers / authorities to take decision.

5-4-22

Project Management Activity

Q.1] Project Name and Group No

Title :- "Movie Recommendation Engine"

Group No :- 12

Q.2] Different project constraint of your project
our project includes different project constraint

1] Scope :-

- Our system makes use of the information provided by users, analyzes them & then recommends the movie that is best suited to the user.
- This interactive website helps to search movie & while typing in the search box it also provides recommendation for the name user is typing. On the movie page it shows the overview of a movie.
- It also shows the IMDb ratings, Release Date, Duration of the movie, & the Genre of movie.
- After that it shows the overview of a movie.
- This is an interactive page, by clicking on the actor image it shows the information about actor. The information contains Date of Birth, Place of Birth.
- It shows the biography of the actor which is driven from Wikipedia.

Q.1.

Project Name :- Tours And Travel's Management.

Group No :- 16

Roll. No

Group Members :- Mr. Omkar Sutar 38 + 0

Mr. Kunal Chougule 03

Mr. Manthan Kambale 13

Mr. Rutvik Jadhav 11

Q.2.

Tours & travel's it is an basically java web application

- Scope :- We are thinking about to Add or collaborate with the local Hotel which provides accomandation also.

Cost :- It is an web application so only deployment is required to deploy this application.

Quality :-

In this application we will try to provide good quality UI (user Interface)

Q.3. 1) Developer Team

2) Project Mentor

3) Project Lead & Manager

4) End User

Q.4.

For frontend we are using HTML, CSS
JAVA script
we have using Java, PHP for dynamic
pages creation.

In tools we are using Net-bin IDE
and For Database we are using Oracle/
MySQL database.

For all the completion of project we have
divided into two parts frontend & backend.

After each week we are thinking about
to do meeting on Microsoft Team and keep
updating everyone regarding their corresponding
task completion.

Q.5.

Business: Our project has two panels first
is user panel and second is Admin panel

It is an web application so only
development cost is required to deploy this
application.

8) Project Lead & Manager

9) End User

Q.4.

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JAVAScript
we have using Java, PHP for dynamic
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Business: Our project has two panels first
is user panel and second is Admin panel

It is an web application so only
development cost is required to deploy this
application.

Organization :-

Today's world and digital world In this digital world tours and travel Management it becomes an most important part in Human lifes.

As we looking for the need of tours and travel's management in our Society. so it has huge demand in Co-ordinate world.

Due to demands of our application Stakeholders are fullfill their needs by using of tour's and travel web application

Technologies :-

For the completion of project we have divided into two parts front end & back end.

In tool's we are using Net-bin IDE 8.1 and for database we are using Oracle / mysql database.

Q. 6. we will used Multi-divisional Organization

In an organization of the kind, you can have many functional divisions with a small centralization.

Here, an organization is structured in various divisions in which people, with different skills, are held together according to a similar product, service or geographic location.

That's why we will use multi-divisional organization.

Due to demands of our applicat stakeholders are fulfill their needs & wing of four's and trust need applicat

For the completion of project we divided into several parts effort end of project we In tool's we are using Net in ID and for databases we are using Oracle and for databases.

Functional divisional organization of the kind you have many functional division with a centralization

Project Based Learning

