1.3.4 - CSE - File-2

Tirupati, (CSP)
27-09-22

To
The HOD Sir,
CSE Department,
Annamacharya Institute of Technology and Sciences
Tirupati.

B.Tech CSE-2
Batch-2

Respected Sir,

We are the batch of community service project (batch-2 CSE-2). We are willing to conduct the survey on floriculture. So please give us permission to conduct the survey. Location: Rangampeta.

Thanking you.

Yours Faithfully

U. S. Koushik. 20ABIA0562.
G. Likith Sai. 20ABIA0568
M. Lakshmikara Prasad 21ABIA0514

Raya Charuvu

27/9/2022
Signature of Guide

Signature of HOD.

Sir,
Please send above 3 students - J. Chandra Babu sir is going along with above students

27/9/2022

Signature of Coordinator.

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of Technology & Sciences, Tirupati-5

CSE-02 LETTER

Batch - 03

days - 03

26-09-2022

Tirupathi

From
G. ...,
...,
...,
III Year - AITS,
Tirupathi.

C/E
Batch 3

To
Guide,
III Year CSE-2,
Tirupati.

Respected Mam,

Sub: Permission to go to the community service project.

The III batch members are going for the community service project. please, Grant the permission mam to go to the outside as prescribed as per our location.

Thanking you mam,

Your's faithfully,
G. ...

Batch members

20AK1A0598
20AK1A0599
20AK1A05A0
20AK1A05A1
20AK1A05A7
20AK1A05B5
20AK1A05A6
20AK1A05...

Chaithanya 26/9/22

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of Technology & Sciences, Tirupati

LETTER

26-09-2022,
Tirupathi.

From

K. Krishna,
20AK1A0562,
CSE-2,
III year, AITS.
Tirupathi.

Batch-6
CSE-2

TO

The class Teacher,
III[rd] year CSE-2,
Tirupathi.

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Respected sir,

Sub: permission to go for the community service project i.e 26-09-2022 to 28-09-2022.

We the batch numbered VI are going for our community service project. Please provide the permission to go to the outside as prescribe as per our location.

Thanking you sir,

your's faithfully,
K. Krishna.
(Team leader).

Batch numbers:

20AK1A0562,
20AK1A0564,
20AK1A0566,
20AK1A0574,
20AK1A0575,
20AK1A0592,
20AK1A0576,
20AK1A0591,
20AK1A...

26/9/2022
please allow to outside for csp project.

PERMISSION LETTER

26-09-2022,
Tirupati.

FROM:
3rd CSE,
SECTION-3,
CSP BATCH-4;

TO:
Ramana Reddy sir,
HOD, CSE, AITS,
Tirupati.

CSE-3
Batch-4

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Respected sir,

We are from CSE-3, CSP Batch-4. Sir as part of Community Service Project we want your permission to visit the community to complete our field work as it is a part of our Community Service Project. My batch absence will not affect the ongoing work in the college.Sir please grant attendance for these days from 27-09-2022 to 28-09-2022.

Thanking you sir,

Your' s Obediently,
M.SAIRAM (21AK5A0524),
J. DIWAKAR (21AK5A0536),
SK GOUSE BASHA (21AK5A0525).

C. Prasanthi
26/9/22

Ok, Permitted
B. Ramana Reddy
26/9/22

Permission Letter.

26-09-2022,
Tirupati.

From
3rd CSE,
SECTION-3,
CSP Batch-6;

1-1-3
Batch-6

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5.

To
Ramana Reddy Sir,
HOD, CSE, AITS,
Tirupati.

Respected Sir,

we are from CSE-3, CSP Batch-6 Sir as part of community Service project we want your permission to visit the community to complete our field work as it is a part

My Batch absence will not affect the ongoing work in the college sir. please grant attendance for these days from 26-09-2022 to 28-09-2022

Thanking you Sir,

Your's Obediently,
Sulaiman (20AK1A05E3)
Tharun (20AK1A05E9)
Sumanth (20AK1A05E4)
Vijay (20AK1A05F7)

J. Sivarani
26/09/22

26-09-2022,
Tirupati

)M:
E-3,
P. Batch 8,
d year, CSE

(E-3
Batch-8

)
nana Reddy sir,
)D, CSE, AITS
irupati,

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Respected sir,

We are from CSE-3 CSP-batch-8, we want permission to go for field work to complete the project. My batch absence will not affect the ongoing work in the college. Please grant attendance for these days from 26-09-22 to 28-09-22

Thank you.

Yours obediently

G. Vinay Kumar (21A15A0532)

S. Viswanadh (21A15A0534)

Permit to
Allow for CSP project
G. 26/9/22
26.9.22

Signature of HOD sir

Permission Letter

Tirupathi,
08-12-2022.

From:
CSE-1,
Batch-1,
A.I.T.S,
Tirupathi.

To:
The Respected HoD,
Department of CSE,
A.I.T.S,
Tirupathi.

Respected Sir,

We, The students of CSE-1 belonging to the Batch-1 of community service project. on regarding with the phase-2 of CSP we have to go for the community on 1-12-2022. As our topic is "Teaching and Tutoring Ideas" we have to go for the community i.e. School. We thought to go for the Z.P. High School in Kasikambadi. please grant permission to go for the community and complete our phase-2 CSP Successfully.

Thanking you Sir

Yours Faithfully

G. Bhoomika - 21AK1A0504
V. Gnanika - 20AK1A0531
K. Jayanthi - 20AK1A0550
P. Bhagyasri - 20AK1A0507
M. Hiranmayee - 20AK1A0544

Permission letter

5-12-22

Tirupathi

From

CSP Batch-3

III CSE-1

A.I.T.S Tirupati

III (CSE-1)
Batch-3

To

The guide

M.r. Athinarayan

A.I.T.S Tirupathi

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Respected sir,

we the students of III CSE-1 to Complete CSP project phase-II. we have to go outside for Completing our survey. So please grant us permission to go out.

Thanking you

Yours Obediently

Batch n.o-3

Batch Members:

20AK1A0504 - P.Akhil

21AK5A0501 - Arjun.S

21AK5A0502 - Bhanu.T

21AK5A0505 - chandra

21AK5A0506 - Chandra Sekhar

21AK5A0507 - Dastagiri

21AK5A0508 - Dhanush

21AK5A0509 - Harshith

Signature of Guide

Permission Letter

08-12-2022.
Tirupati.

FROM:
CSE-3,
3rd year,
CSP Batch-1

To CSE-3
Batch-1

TO:
Ramana Reddy Sir,
HOD, CSE, AITS,
Tirupati.

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Respected Sir,

We are from CSE-3, CSP Batch-1. Sir as a part of Community Service Project, we need your permission to visit the schools of community to complete our guidance for the students. My batch absence will not affect the ongoing work in the college. Sir, Please grant us attendance on 09-12-2022.

Thanking you Sir,

Yours Obediently,
~~K. Sreenikhitha-20AK1A05D7~~
S. SaiGanesh-20AK1A05C5
M. Saivenkat Ganesh-20AK1A05C8
K. Yaswanth-20AK1A05G4
L. Yugendhar-20AK1A05G5
D. Reddy Prasanth-21AK5A0523

Kindly Permitted to
Kindly Permit them to do CSP project for our on 9/12/22
9/12/22

PERMISSION LETTER

08-12-2022,
Tirupati.

FROM:
3rd CSE,
SECTION-3,
CSP BATCH-4;

@ CSE-3
Batch-4

TO:
Ramana Reddy sir,
HOD, CSE, AITS,
Tirupati.

Respected sir,

We are from CSE-3, CSP Batch-4. Sir as part of Community Service Project we want your permission to visit the community to complete our field work as it is a part of our Community Service Project. My batch absence will not affect the ongoing work in the college.Sir please grant attendance on 09-12-2022.

Thanking you sir,

Your' s Obediently,
M.SAIRAM (21AK5A0524),
J. DIWAKAR (21AK5A0536),
SK GOUSE BASHA (21AK5A0525).

8/12/22

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Program Book

Community Service Project

Water Facilities and Drinking Water Availability

By

RUKHAIAH
20AK1A05C2
COMPUTER SCIENCE & ENGINEERING
SECTION-3

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

AP STATE COUNCIL OF HIGHER EDUCATION
(A STATUTORY BODY OF GOVERNMENT OF ANDHRA PRADESH)

ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES

Venkatapuram, Rennigunta, Tirupati 517520.

(AN AUTONOMOUS INSTITUTION)

COMMUNITY SERVICE PROJECT REPORT

On

Water Facilities and Drinking Water Availability

By

RUKHAIAH
(20AK1A05C2)

Department of COMPUTER SCIENCE & ENGINEERING

(2020-2024)

Under the Supervision of

Ms. J. SivaRani, M.Tech

Assistant Professor

Dept. Of CSE

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati

Program Book for Community Service Project

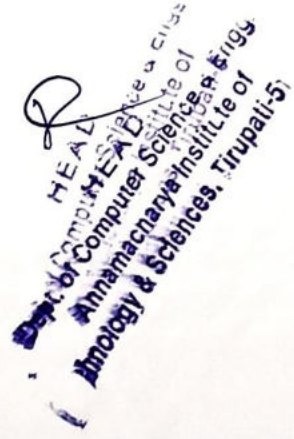
Name of the Student: Rukhaiah

Name of the College: Annamacharya Institute of Technology and Sciences

Registration Number: 20AK1A05C2

Period of CSP: III – I Semester

Name & Address of the Community/Habitation: Ramapuram Community, Srikalahasti.



CERTIFICATE

This is to certify that the community project report titled "**Water Facilities and Drinking Water availability**" Submitted to "Computer Science and Engineering, Annamacharya Institute of Technology and Sciences, Tirupati" is a bonafide record of work done under my supervision.

Rukhaiah	20AK1A05C2
P. Sasikala	20AK1A05D5
MK. Sreya	20AK1A05E0
N. Sulaiman	20AK1A05E3
E. Sumanth	20AK1A05E4
P. Tejaswi	20AK1A05E6
K. Tharun Sai Reddy	20AK1A05E9
J S Vijay	20AK1A05F7
V. Yasaswini	20AK1A05G2

Name of the Guide:

Ms. J. SivaRani, MTech
Assistant Professor
Computer Science and Engineering

Head of the Department:

Mr. B Ramana Reddy, M.Tech,PhD
Associate Professor & HOD
Computer Science and Engineering

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati

Instructions to Students for Community Service Project

Please read the detailed Guidelines on Community Service Project hosted on the website of AP State Council of Higher Education https://apsche.ap.gov.in

Link https://apsche.ap.gov.in/Pdf/Guidelines%20for%20the%20OJT%20Internship%20Community%20Service%20Project.pdf

1. It is mandatory for all the students to complete 2 months (180 hours) of Community Service Project as a part of the 10 months mandatory internship/on the job training.
2. Consider yourself as a committed volunteer in the community, you work with.
3. Every student should identify the village/community/habitation for Community Service Project (CSP) in consultation with the College Principal/the authorized person nominated by the principal.
4. Report to the community/habitation as per the schedule given by the College. You must make your own arrangements of transportation to reach the community/habitation.
5. You will be assigned with a Faculty Guide from your College. He/She will be creating a WhatsApp group with your fellow volunteers. Post your daily activity done and/or any difficulty you encounter during the programme.
6. You should maintain punctuality in attending the CSP. Daily attendance is compulsory.
7. You are expected to learn about the community/habitation and their problems.
8. Know the leaders and the officials of the community/habitation.
9. While in project, always wear your College Identity Card
10. If your college has a prescribed dress as uniform, wear the uniform daily.
11. Identify at least five learning objectives in consultation with your Faculty Guide. These learning objectives can address:
    - Information about the community, including the realities and problems of the society.
    - Need for creating awareness on socially relevant aspects/programs.
    - Acquiring specific Life Skills.

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Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-517

- Learning areas of application of knowledge and technologies related to your discipline.
- Identifying developmental needs of the community/habitation.

12. Practice professional communication skills with team members, and with the leaders and officials of the community. This includes expressing thoughts and ideas effectively through oral, written, and non-verbal communication, and utilizing listening skills.

13. **Be regular in filling up your Program Book. It shall be filled up in your own handwriting. Add additional sheets wherever necessary.**

14. At the end of Community Service Project, you shall be evaluated by the person incharge of the community/habitation to whom you report to.

15. There shall also be evaluation at the end of the community service by the Faculty Guide and the Principal.

16. Do not indulge in any political activities.

17. Ensure that you do not cause any disturbance to the inhabitants or households during your interaction or collection of data.

18. Be cordial but not too intimate with the persons you come across during your service activities.

19. You should understand that during this activity, you are the ambassador of your college, and your behaviour during the community service programme is of utmost importance.

20. If you are involved in any discipline related issues, you will be withdrawn from the programme immediately and disciplinary action shall be initiated.

21. Do not forget to keep up your family pride and prestige of your college.

22. Remember that you are rendering valuable service to the society and your role in the community development will become part of the history of the community.

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Community Service Project Report

Submitted in accordance with the requirement for the degree of

Name of the College: Annamacharya Institute of Technology and Sciences

Department: Computer Science and Engineering

Name of the Faculty Guide: Ms. J. SivaRani

Duration of the CSP: III – I Semester

Name of the Student: Rukhaiah

Programme of Study: Bachelor of Technology

Year of Study: III year

Register Number: 20AK1A05C2

Date of Submission:

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Student's Declaration

I, **Rukhaiah,** a student of **Bachelor of Technology** Program, Reg. No **20AK1A05C2** of the Department of **Computer Science and Engineering, Annamacharya Institute of Technology and Sciences** College do hereby declare that I have completed the mandatory community service in III – I semester at **Ramapuram Community Srikalahasti,** under the Faculty Guideship of **Ms.J.SivaRani,** MTECH Department of **Computer Science and Engineering** in **Annamacharya Institute of Technology and Sciences** College.

(Signature and Date)

Endorsements

Faculty Guide

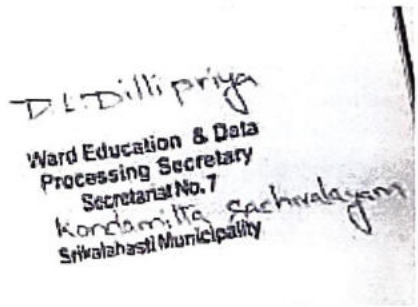
Head of the Department

Principal

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Certificate from Official of the Community

This is to certify that **Ms. D.L.DilliPriya** and **Mr. Kondamitta,** Reg. No **20AK1A05C2** of **Annamacharya Institute of Technology and Sciences** underwent community service in **Ramapuram Community Srikalahasti**, in III – I semester. The overall performance of the Community Service Volunteer during his/her community service is found to be ..... (Satisfactory/Good).



Authorized Signatory with Date and Seal

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

ACKNOWLEDGEMENTS

The satisfaction that accompanies the successful completion of the task would be put incomplete without the mention of the people who made it possible, whose constant guidance and encouragements crown all the efforts with success.

We avail this opportunity to express our deep sense of gratitude and heartly thanks to **Mr. C. GANGI REDDY, Hon'ble Secretary of AITS-Tirupati**, for providing congenial atmosphere and encouragement.

We show gratitude to **Dr. C. NADHAMUNI REDDY, Principal** for having provided all the facilities and support.

We would like to thank **MR. B. RAMANA REDDY,** MTech, PhD, **Associate Professor & Head of the Department, Computer Science and Engineering** for encouraging at various levels of our project.

We would like to thank **AP STATE COUNCIL OF HIGHER EDUCATION (APSCHE)** for initiating **COMMUNITY SERVICE PROJECT** in the curriculum that exposed students to the hardships and working of society practically.

We would like to thank our project guide **Ms. J. SivaRani Mam,** MTech for her valuable time and continued assistance for the successful completion of the community service project. We would also like to express gratitude to **Mrs. Sailaja,** MTech coordinator of Community Service Project of Annamacharya Institute of Technology and Sciences, Tirupati for facilitating this project and providing her guidance throughout the duration of the project.

We would like to express our sincere thanks towards D.L.DilliPriya Mam, Ward education data processing secretary, who devoted their time and knowledge in the implementation of awareness program for their community people in regarding our community service project. **We are thankful to Ramapuram Community** for their support and for spending their valuable time. **We place highest regards to our Parents, Friends and Well-wishers** who helped a lot in making the report of this project.

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of Technology & Sciences, Tirupati-5

ABSTRACT

- Our community service project title is "Water Facilities and Drinking water availability". Our main motive is to check the water availability in ramapuram community.
- Most urban and municipal areas people are provided water supply through centralized water mechanism.
- The lack of clean water is a major risk factor for poor health, sanitation and it has major health impact on rural communities.
- Safe drinking water is fundamental to health, survival, growth and development
- This study is based on data collection through surveys, group discussion and other relevant authorities.
- We organize seminars that educate people on topics like saving water, safe drinking water and health hazards.
- This study will make an enquiry about the accessibility and coverage of drinking water and explore the water security aspect in the community.
- The data will be collected on the availability of adequate safe drinking water from the community people
- If there was any problem in availability of drinking water for community people, we take steps towards in solving the problem by consulting higher authorities which helps the community people to enrich the drinking facilities.

Batch No: 6

Location: Sri Kalahasti (Ramapuram)

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Plan of action

- First, we are planning to visit the office in Tirupati then we collect the information about drinking water availability and facilities.
- After that we are going to visit the Ramapuram Dam near Sri Kalahasti and we will check out the water distribution to various rural and urban areas.
- The next day we collect the data from office in Sri Kalahasti about water distribution.
- We are planning to visit the community people; we will do survey regarding water availability and facilities in that area.
- In this survey we are going to check whether the community people are getting safe drinking water daily or not.
- We also trace out the problems of the community people. If we find any problem, we try to solve it by consulting the higher authorities.
- At last, we are going to create an awareness about safe drinking water and health hazards among the community people.

Batch No: 6

Location: Sri Kalahasti (Ramapuram)

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

PERMISSION LETTER

1.3.4-ED FILE 2

AIDS 26/07/22
Tirupati

From
AIRDS Students
CSP Batch-1
AITS
Tirupati

To
The HOD sir
CSE(AIRDS) Department
AITS
Tirupati

Subject: permission for csp project

respected sir,

It is to inform you that the College officials has permitted to go to fieldwork to complete csp project (phase-I). so, we request you to allow these subjects to go to fieldwork and complete our csp.

20AK1A3031 - V. prashanth:
20AK1A3033 - C.N. Rahul
20AK1A3035 - S. Rohith
20AK1A3044 - D. Srinivasulu

Location - Rly Kodur

Thank you
Yours Sincerely

Project Name - Agriculature

Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-51

LETTER :-

Tirupathi ;
26/09/22

From :
CSP Batch 2
SK Salman ;
AI & DS ;
AITS ;

TO :
The HOd / Cruide ;
AITS ;

Sub :- Grant the permission for Community project From 26-9-22 to 28-9-22.

Respected Sir, our Batch Number is 2. From AI & DS 2nd year. our Batch is going for Community field project from 26-9-22 to 28-9-22. So we request you Sir. To allow us for the Community field project titled "Idea for Community Crime & safety Prevention Location :- Alakuntha. Thanking you Sir ;

Yours Truly ;
SK. Salman.

Batch Members :-
21AK5A3001 S. Abhishek
21AK5A3005 SK. Salman
21AK5A3002 Chaitanya

HOd Signature :-

Cruide Signature :-

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

PERMISSION LETTER

26/09/22
Tirupati

from

AI-DS Students
Batch-3
AITS
Tirupati

To

The H.O.D sir
AI-DS Department
AITS
Tirupati

Subject: permission for CSP project regarding "Ideas for health and well being"

ref — reg —

Respected sir,

This is to inform you that we are students of AI-DS Dept. we request you to permit us to move to the fieldwork to complete our CSP project regarding "Health and well being". Expected days to complete our project is 3 days starting from 26/09/22 to 28/09/22. So, we request to allow these students to go to field work at "RAMANUJULA PALLI"

20AK1A3017 - M. Karthik
20AK1A3045 - K. Suryateja
20AK1A3038 - A. Sai Narayana
20AK1A3009 - K. Dinesh

Yours sincerely

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

PERMISSION LETTER

26/9/22
Tirupathi

From
AI-DS Dept
CSP Batch-4
AITS
Tirupathi

To
The HOD Sir
AIDS Dept
AITS
Tirupathi

Sub:- Permission for CSP Project ~~Survey~~ Survey (Nutrition)

-req-req-

Respected Sir,

It is to inform you that the College officials has permitted to go to field work To Complete CSP project (Phase-I). So we request you to allow these students to go to field work to Complete our CSP, Kindly provide Attendence for them

roll numbers:
20AK1A3003 - K. Boonsai
20AK1A3001 - J. Abhishake
20AK1A3007 - K. Dhanush
20AK1A30034 - K. Raviteja

Thanking

Yours Respectively
AI-DS students

26/9/22

Permitted
26/9

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

26/9/22
Tirupathi.

from
AI-DS Dept
CSP Batch-5
AITS
Tirupathi

To
The Hod sir
AIDS dept.
AITS
Tirupathi

Sub: permission for csp project survey.
(Help the environment and fight climate changes)

-req-req-

Respected sir,

It is to inform you that the coll
officials has permitted to go to field work
you to complete csp (phase-I). so we reques
you to allow these students to go to fieldwo
to complete our csp. Location - Anasapalle

20AK1A3042 - Siva Keshava reddy
20AK1A3046 - Swaroop
20AK1A3015 - Vamsi vardhan reddy
20AK1A3050 - Dinesh kumar
20AK1A3012 - Ganesh
20AK1A3014 - Harsha

Thanking you

26/9/22

Your obediently

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

permission Letter

26/9/22,
Tirupati.

From
AI&DS Dept,
Csp Batch-6,
AITS,
Tirupati.

To
The HOD sir,
AID Dept,
AITS,
Tirupati.

Sub:- permission for csp project.

-req-req

Respected sir,

It is inform you that the colleg officials has permitted to go to field work to complete csp project (phase-I). So we request you to allow these students to go t the field work and complete our csp proje

20AK1A3027 - P. Naveen
20AK1A3010 - M. Dinesh kumar
20AK1A3004 - S. chandra sekhar
20AK1A3024 - M. Mounith.
20AK1A3011 - C. Dushyanth

Thank you.

Yours faithfully
AI&DS students,
(Csp batch-6).

Location: venkatapuram
Title: community cleanlir and improvement.

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

26/04/22,
Tirupathi.

From,
AI-DS Dept,
CSP Batch-7,
AITS,
Tirupathi.

To,
The HOD Sir,
AIDS Dept,
AITS,
Tirupathi.

Sub: Permission for csp project, Survey (Animal Husbandry)

Respected Sir,

It is to inform you that the College officials has permitted to go to field work to complete csp project (phase-I). So we request you to allow the students to go to field work & complete our csp. in the location "Karakambadi".

20AKIA3051 - P. Venkata Ganesh
20AKIA3043 - Ch. SivaRama krishna
20AKIA3039 - C. Sai Sarath Reddy
21AKSA3003 - G. Khaleel Basha
21AKSA3008 - B. Vamsinath

Yours Respectively,
AI-DS Students

Guide signature 26/9/22

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Program Book

Community Service Project

FARMING AND AGRICULTURE

By
D SREENIVASULU
20AK1A3044
ARTIFICAL INTELLIGENCE & ENGINEERING

AP STATE COUNCIL OF HIGHER EDUCATION
(A STATUTORY BODY OF GOVERNMENT OF ANDHRA PRADESH)

ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES

Venkatapuram, Renigunta, Tirupati – 517520.
(AN AUTONOMOUS INSTITUTION)

COMMUNITY SERVICE PROJECT REPORT

On

FARMING AND AGRICULTURE

By

D Sreenivasulu
(20AK1A3044)

Department of: ARTIFICAL INTELLIGENCE
(2020-24)

Under the Supervision of
Ms. K Susmitha, M.Tech.,
Assistant Professor

Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Program Book for Community Service Project

Name of the Student : D Sreenivasulu

Name of the College : Annamacharya Institute of Technology and Sciences

Registration Number : 20AK1A3044

Period of CSP : III – I Semester

Address of the Community: Settgunta, Settigunta Mandal

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CERTIFICATE

This is to certify that the community project report titled "**FARMING AND AGRICULTURE**" Submitted to "Artificial Intelligence and Data Science", Annamacharya Institute of Technology and Sciences, Tirupati" is a bonafide record of work done under my supervision.

T NEELIMA	20AK1A3029
V PRASANTH	20AK1A3031
C N RAHUL	20AK1A3033
S ROHITH	20AK1A3035
P SAI EASHA REDDY	20AK1A3037
D SREENIVASULU	20AK1A3044
A SWETHA	20AK1A3048
K THANUJA	20AK1A3049
P VENKATA SAI JEEVANA	20AK1A3052

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Name of the Guide:

Ms. K Susmitha, M.Tech.,

Assistant Professor

Computer Science and Engineering

Head of the Department

Mr. Dr. K Navaz, M.Tech., Ph.D.,

Associate Professor & HOD

Artificial Intelligence

Instructions to Students for Community Service Project

Please read the detailed Guidelines on Community Service Project hosted on the website of AP State Council of Higher Education https://apsche.ap.gov.in

Link:https://apsche.ap.gov.in/Pdf/Guidelines%20for%20the%20OJT%20Internship%20Community%20Service%20Project.pdf

1. It is mandatory for all the students to complete 2 months (180 hours) of Community Service Project as a part of the 10 months mandatory internship/on the job training.
2. Consider yourself as a committed volunteer in the community, you work with.
3. Every student should identify the village/community/habitation for Community Service Project (CSP) in consultation with the College Principal/the authorized person nominated by the principal.
4. Report to the community/habitation as per the schedule given by the College. You must make your own arrangements of transportation to reach the community/habitation.
5. You will be assigned with a Faculty Guide from your College. He/She will be creating a WhatsApp group with your fellow volunteers. Post your daily activity done and/or any difficulty you encounter during the programme.
6. You should maintain punctuality in attending the CSP. Daily attendance is compulsory.
7. You are expected to learn about the community/habitation and their problems.
8. Know the leaders and the officials of the community/habitation.
9. While in project, always wear your College Identity Card
10. If your college has a prescribed dress as uniform, wear the uniform daily.
11. Identify at least five learning objectives in consultation with your Faculty Guide. These learning objectives can address:
    - Information about the community, including the realities and problems of the society.
    - Need for creating awareness on socially relevant aspects/programs.
    - Acquiring specific Life Skills.

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- Learning areas of application of knowledge and technologies related to your discipline.
- Identifying developmental needs of the community/habitation.

12. Practice professional communication skills with team members, and with the leaders and officials of the community. This includes expressing thoughts and ideas effectively through oral, written, and non-verbal communication, and utilizing listening skills.

13. **Be regular in filling up your Program Book. It shall be filled up in your own handwriting. Add additional sheets wherever necessary.**

14. At the end of Community Service Project, you shall be evaluated by the person incharge of the community/habitation to whom you report to.

15. There shall also be evaluation at the end of the community service by the Faculty Guide and the Principal.

16. Do not indulge in any political activities.

17. Ensure that you do not cause any disturbance to the inhabitants or households during your interaction or collection of data.

18. Be cordial but not too intimate with the persons you come across during your service activities.

19. You should understand that during this activity, you are the ambassador of your college, and your behaviour during the community service programme is of utmost importance.

20. If you are involved in any discipline related issues, you will be withdrawn from the programme immediately and disciplinary action shall be initiated.

21. Do not forget to keep up your family pride and prestige of your college.

22. Remember that you are rendering valuable service to the society and your role in the community development will become part of the history of the community.

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hnology & Sciences, Tirupati-5

Community Service Project Report

Submitted in accordance with the requirement for the degree of

Name of the College : Annamacharya institute of Technology and Science

Department : Artificial Intelligence

Name of the Faculty Guide : Ms.K Susmitha, M.Tech.,

Duration of the CSP : III _ I Semester

Name of the Student : D SREENIVASULU

Programme of Study : Bachelor of Technology

Year of Study : III year

Register Number : 20AK1A3044

Date of Submission :

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STUDENTS DECLARATION

I, **D Sreenivasulu,** student of **Bachelor of Technology** Program, Reg. No **20AK1A3044** of the Department of **Artificial Intelligence, Annamacharya Institute of Technology and Sciences** College do hereby declare that i have completed the mandatory community service in III – I semester at **Settigunta,Settigunta mandal** under the Faculty Guideship of **Ms. K Susmitha, M.Tech.,** Department of **Computer Science and Engineering** in **Annamacharya Institute of Technology and Sciences** College.

(Signature and Date)

Endorsements

Faculty Guide

Head of the Department

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Principal

Certificate from Official of the Community

This is to certify that **Mr. D Sreenivasulu,** Reg. No **20AK1A3044** of **Annamacharya Institute of Technology and Sciences** underwent community service in **Settigunta, Settigunta mandal,** in III – I semester. The overall performance of the Community Service Volunteer during his/her community service is found to be ..... (Satisfactory/Good).

SARPANCH
Settigunta Grama Panchayat
Rly. Kodur (M), YSR Kadapa Dt.
S. Siva Sailaja

Authorized Signatory with Date and Seal

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ACKNOWLEDGEMENTS

The satisfaction that accompanies the successful completion of the task would be put incomplete without the mention of the people who made it possible, whose constant guidance and encouragement crown all the efforts with success.

We avail this opportunity to express our deep sense of gratitude and hearty thanks to **Mr C GANGI REDDY**, Hon'ble Secretary of **AITS**-Tirupati, for providing congenial atmosphere and encouragement.

We Show gratitude to **Dr C NADHAMUNI REDDY**, Principal for having provided all the facilities and support.

We would like to thank **Dr K NAVAZ**, Assistant Professor & HOD, artificial intelligence for encouragement at various levels of our project.

We thankful to our guide **Ms. K Susmitha, M.Tech**., Assistant Professor, Computer Science and Engineering for her sustained inspiring guidance and cooperation throughout the process of this project. Her wise counsel and suggestions were invaluable.

We express our deep sense of thanks of gratitude and thanks to all the Teaching and Non-Teaching Staff of our college who stood with us during the project and helped us to make it a successful venture.

We place highest regards to our Parents, Friends and Well-Wishers who helped a lot in making the report of this project

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ABSTRACT

Our community service project title is "**Agriculture and Farming**" and our main motive is to know about the process of agriculture and help the farmers with the modern techniques used. Agriculture is the practice of cultivating plants and livestock in order to provide facilities the human beings. In the rise of the sedentary human lifestyle agriculture was the key development. The cultivation of plant and food grains began years ago in order to provide food to the city population. Agriculture is the main need for the people to live in the society. Agriculture is the main source of livelihood, it provides a source for the people to earn. Most of the population in the rural areas is dependent on agriculture as their main source of income.

Farming is the act or process of working the ground, planting seeds, and growing edible plants. You can also describe raising animals for milk or meat as *farming*.

Food is a basic requirement for every living being. We depend on plant and animals for food. Ancient men began the cultivation of food in a small area and used certain procedures for their management and improvement.This art of cultivation of the crop is called agriculture.

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Batch No:1

FARMING AND AGRICULTURE

PLAN OF ACTION:

Actions to do:

- Visit head of the village and taking permission for survey
- Visit Farmers and knowing the details about their crop
- Collect information of present crop of the farmer.
- Collect Information about their investment on their crop.
- Collect information about what type of soil is suitable for which crop cultivating.
- Collect information about the duration of crop period
- Collect information Which crop will need less cost and gives more profit
- List their problems which are related to the crop and when he started farming.
- Give awareness about the natural bio chemicals and their uses in farming.
- Give awareness to the farmers on uses of modern technology in farming.
- Give awareness about govt schemes like crop insurance schemes

Awareness on farming.NO.OF.HOURS: 3

Topic: 1	Topic Name	Date	Info.
1.1	Awareness on farming	26-09-2022	help farmers identify efficiencies that lead to higher productivity and profitability, lower input costs, and optimized fertilizer use
1.2	Effects and costs.		Agriculture imposes multiple exter nal costs upon society through effe cts such as pesticide damage to natu re.
1.3	Live Stock Issues		Livestock production occupies 70% of all land used for agriculture

Land and water issues, Pesticides, Crop cultivation systems NO.OF.HOURS:3

Topic: 2	Topic Name	Date	Info.
2.1	Land and water issues.		Estimates of the amount of land transformed by humans vary from 39 to 50%. Agricultural water usage can also cause major environmental problems, including the destruction of natural wetlands

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2.2	Pesticides.	27-09-2022	Pesticide use has increased since 1950 to 2.5 million short tons annually worldwide, yet crop loss from pests has remained relatively constant.
2.3	Crop cultivation systems.		Multiple cropping, in which several crops are grown sequentially in one year, and intercropping, when seve ral crops are grown at the same time, are other kinds of annual crop ping systems known as polyc ultures.

PlantProtection,FarmerWelfare,Productionpractices.NO.OF.HOURS:3

Topic: 3	Topic Name	Date	Info
3.1	Plant Protection.	27-09-2022	Pesticides plant protection products are used to protect plants and plant products against harmful organisms such as insects, fungi, and weeds.
3.2	Farmer Welfare		The Government has rolled out a number of new initiatives like Soil Health Card Scheme, Neem Coated Urea, Paramparagat Krishi Vikas Y -ojana (PKVY)
3.3	Production practices		It dedicate to establish a database for troubleshooting product or process problems.

Safety,NO.OF.HOURS:3

Topic: 5	Topic Name	Date	Info.
5.1	Safety	28-09-2022	The Agricultural Safety and Health Council of America (ASHCA) also holds a yearly summit to discuss safety
5.2	Sustainability		Solutions are taken recognizing in environmental, and livelihood trade off, and balancing the rights of a variety of users and interests

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Batch No: 1

Guided By:

Ms. K Susmitha, M.Tech.,

Assistant Professor, Department of CSE.

Location: Settigunta

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CHAPTER 1: EXECUTIVE SUMMARY

Community programs can expand the opportunities for students to acquire personal and Visit head of the village and taking permission for survey Visit Farmers and knowing the details about their crop. Collect information of present crop of the farmer. Collect Information about their investment on their crop. Collect information about what type of soil is suitable for which crop cultivating. Collect information about the duration of crop period. Collect information Which crop will need less cost and gives more profit. List their problems which are related to the crop and when he started farming. Give awareness about the natural bio chemicals and their uses in farming. Give awareness to the farmers on uses of modern technology in farming, causes on repetition of same crop and causes of using chemical. Give awareness about govt schemes like crop insurance schemes.

Objectives: Assessment of ability of forecast based advisory to influence farmers' decisions on Selection of cultivar o Selection of optimum sowing time Conducting farm operation in tune with weather forecasts leading to energy saving, enhancing the efficacy of inputs such as fertilizer, pesticides etc. Cutting costs of agriculture inputs such as pesticide, irrigation, fertilizer, herbicide etc. Saving of crop from adverse weather Find out Economic and other benefits due to use of forecast in farm management decisions Determine the saving the crop from adverse weather. Assessing impact of favourable weather on overall growth, development and final yield of the crop.

Outcomes:

- Agriculture can help reduce poverty, raise incomes and improve food security for 80% of the world's poor, who live in rural areas and work mainly in farming.
- Sustainable agricultural operations and farming practices yield positive impacts on the environment, animals, and people.
- They were very interested in learning about techniques in farming.

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CHAPTER 2: OVERVIEW OF THE COMMUNITY

In view of community service project, we had chosen the topic on guiding the Backbones of our Nation. The Title of our Project is named as "**FARMING AND AGRICULTURE**".

The Reason behind choosing this Topic is to give an awareness over an modern and useful techniques to farmers.

- Now-a-days Farmers are not aware regarding the below criteria-
- The foremost reason behind choosing farming is to give an awareness over the techniques used in the farming field.
- Only some of them are known about the techniques and high quality which are very helpful to grow a healthy crop.
- To give an awareness about the types of soil to use for a particular crop.
- Give an overview about the demanding crops at present and future profit.
- Awareness about the government schemes provided based on the caste based, crop based like
- "YSR RYTHU BAROSA" – through this they get interest free crop loans to be provided, Free bore-wells, 9 hours free electricity during day time etc.
- And gave an awareness about the flood area crops like government provided Rs.4000 crores allotted for Natural Disaster Relief Fund.
- After our survey which is conducted in Phase- I, we had conducted some awareness about the benefits of using high quality pesticides, machines which are very helpful to lead a healthy and profitable crops. And also the type of soil to be used, and gave an ideas about the crops which are very profitable.
- we are conducting the survey in phase - I of our project, students showed much interest responding whatever we ask to them. They were very friendly and talented students.

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CHAPTER 3: COMMUNITY SERVICE PART

As part of our community service project, we conducted some surveys regarding how aware of farmers on their agriculture. We initiated the farmers not to discontinue their farming. We gave them some guidance on how to choose particular fields to accomplish their goals. They were very enthusiased in showing their interest of listening and practicing of new technology in farming. By the end of this project, we came to conclude that many farmer were not aware of Organic Farming, Agroforestry. Natural Farming, System of Rice Intensification, Precision Farming, Conservation Agriculture, Crop Rotation and Intercropping, Cover Crops and got awareness on each and every topic which we have discussed. Through this community service project, we learnt how to interact with society. We learnt how to take initiative in every task. We had seen the students who are suffering from zero knowledge regarding present technologies and career guidance. So, we gave them some guidance which helped them to learn new things based on higher education and technologies. Finally, we declare that we are very much satisfied with this project by giving guidance to school students to take their own decisions for their better future.

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ACTIVITY LOG FOR THE PHASE - I

Day & Date	Brief Description of daily report	Learning Outcome	Person In-charge Signature
Day -1 (26-09-2022)	Conducted survey has done by the spending time with framers who are working in fields	Many farmers don't know agriculture methods.	S Siva Sailaja
Day -2 (27-09-2022)	Conducted a survey on problems crop cultivation.	We identified that most of the farmers were not an aware of new techniques and so on.	S Siva Sailaja
Day -3 (28-09-2022)	Conducted a survey on the informationa bout fertilizers and pesticides	We observed that many farmers don't have any proper ideas on the crop protection.	S Siva Sailaja
Day -4 (29-09-2022)	Interacted with the farmers to know their profits and giving awareness on the modern technologies and crop insurance.	Recorded as the farmers had poor financial status	S Siva Sailaja

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PHASE–I Report

(From Date:26-09-2022 to Date:29-09-2022)

Objective of the Activity Done: Conducted survey program on FARMING AND AGRICULTURE

Detailed Report: Conducted survey on how to give awareness about modern technology to farmer's. Many farmers not know about the advantages of Modern Technology. Initiated a survey from farmer's about crops, pesticides and gave some information about Modern Technology. After conducting the survey we identified that many of the farmers were not about Modern Technology. Interacted with the farmers to know their superintendence. The survey has done by spending the time with farmers who are working in fields. We collected information about types of crops they cultivated, issues faced during the crop period and information about fertilizers and pesticides and crop insurance.

We also observed that most of the farmers use cows to plough . Most of the farmers use cows and buffaloes to plough their farm. We also observed that depending on their wealth some farmers have big machines to plough the fields. After conducting survey we came to know that there are two types of farming pastoral and arable support each other and increase farm yield.

On the survey conducted on agriculture we came to know it is the process of producing crops and rearing animals for gaining profit. We also observed that the contributor to India's more than 15% GDP is agriculture.

On the basis of survey we acknowledged about the problems faced by farmer's like poverty, lack of knowledge about modern technology and illiteracy etc. We also helped farmers by giving awareness about how technology can help them in agriculture like forecasting climate more accurately, reduce water usage, increase yields and boost their net profits. We have given some suggestions about in what ways they can use technology for better irrigation of crops.

Finally, we completed this survey and have good connections we interacted with each and every farmer in that area and we had some small conversations. By this interaction we got to know some information about them and their lifestyles. We had a great time with the farmers as they are very friendly and we are that they responded very well to us.

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ACTIVITY LOG FOR THE PHASE – II

Days	Brief Description of daily report	Learning Outcome	Person In-charge Signature
Day -1	Awareness on Modern Technologies	They learnt the importance of agriculture such as the application of herbicide, pesticide, fertilizer, and improved seed.	S Siva Sailaja
Day -2	Information about Organic Farming	It uses fertilizers of organic origin such as compost manure, green manure.	S Siva Sailaja
Day -3	Uses of Crop rotation	The practice of planting different crops sequentially on the same plot of land to improve soil health	S Siva Sailaja
Day -4	Acknowledgement on Irrigation	To irrigate is to water crops by bringing in water from pipes, canals, sprinkles.	S Siva Sailaja

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PHASE – II Report

(From Dt 09-12-2022 to Dt 12-12-2022)

Objective of the activity done: Conducted the awareness programs about the High quality techniques and machines used for farming and cleared the issues identified in Phase-I.

Detailed Report: As a part of second phase of our community service project we took an permission from the head of the village and gave us support while conducting the awareness program. The farmers require some tools to guide them and want awareness about how the developed states farmers are working with high quality techniques. These farmers plays an vital role as they are the backbones and feeders. We demonstrated them how the technology has changed. We let them know what are the different types of Techniques and Machines used in the farming. We are thinking that now the farmers to whom we gave an awareness program regarding these topics are aware of high quality machines and technologies and we think that we guided them some useful methods to cultivate the crop.By the end of our community service project, we are happy and satisfied that we got a huge number of responses from the farmers during our first phase of project as well as the second phase of community service project. This community service project helped us to know that how to interact with the society and with the community, this also taught us how to take initiative while we perform a different task in different fields.

CHAPTER 4: OUTCOMES DESCRIPTION

The Survey forms which we have conducted to farmers are

Name : Nageswaramma

Land : 3acres

Crop : papaya

Crop duration : 1 Year

Investment : 1lac

Profit : 1.5 lacs

Irrigation type : Bore well

Crop insurance : NO

Issues faced during crop season are stem issues Pesticides and fertilizer like baviston are used to control above issues.

Name : Divya

Land : 4 acres

Crop : Banana

Crop duration : 1 year

Investment : 1.5lac

Profit : 3 lacs

Irrigation type : Bore well

Crop insurance : NO

Issues faced during crop season are matti tegalu , purgulu(pests),Pesticides and fertilizer like phosphate, Dap, synthetis mannualare used to control issues.

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Name	: Narayana
Land	: 5 acres
Crop	: Banana
Crop duration	: 1 Year
Investment	: 2.5lac
Profit	: 5 lacs
Irrigation type	: Drip irrigation
Crop insurance	: NO

Issues faced during crop season are matti tegalu, purgulu(pests) Pesticides and fertilizer like phosphate, Dap, synthetic manual ,gold are used to control issues.

Name	: Chalapathi
Land	: 2 acres
Crop	: Mango Crop
Duration	: 1 year
Investment	: 70k
Profit	: 260000
Irrigation type	: Bore Well
Crop insurance	: NO

Issues faced during crop season purgu ,banka ,buzi tegalu. Pesticides and fertilizer like chlorofide ,baviston, imida gold karateare used to control above issues.

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Name : Narayana Reddy

Land : 3acres

Crop : Banana(1 acres),papaya (2 acres)

Crop duration : 1 year

Investment : 2.5 lac(banana-1.5 lac)(papaya-1 lac)

Profit : 50k(banana),70k(papaya)

Irrigation type : Bore Well

Crop insurance : NO

Issues faced during crop season mattiegulu on banana, stem related on papaya Pesticides and fertilizer like Phosphate, Dap, Baviston used to control above

The problems we have identified are:After conducting the survey, we came to a conclusion that most of the farmers were not aware of the following-

Seeds:A seed is an essential and fundamental ingredient to increase crop yields and maintain steady growth in agricultural output. Many of the farmers can't identify the quality of the seeds.

Marketing: In rural India, agricultural marketing is still in poor shape. Profitable money is not provided to the farmers.

Lack of Modern Equipment:As even in 2020 also the farmers are using traditional tools for farming like plough, sickle etc. This leads to the wastage of energy and manpower and less yield per capita labour force.

Poor Irrigation facilities: In the field of farming irrigation is one of the essential steps to grow a crop perfectly but most of them are laging with it.

Others: Water problem, Electricity lacking etc..

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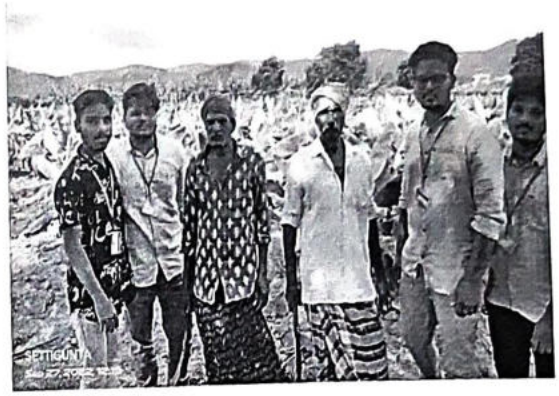
Report of the mini-project work done in the related subject w.r.t the Farming

Location : Settigunta



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Survey Done in Phase-1:

These farmers are farming their own crops on the basis of their knowledge. This information consists of the details and issues of the crops. They gave the detailed information and problems of their crops. Then we started our introduction about why we are here and what we are planning to do. After listening carefully, they were ready

Name of the farmer is Divya , number of acres is 4,Crop of the farmer is Banana, Crop duration is 1 year, Investment on the crop is 1.5lakhs, Profit on the crop is 3 lakhs, Irrigation type is Bore well, Crop insurance is NO.Issues faced during crop season are matti tegalu, purgulu (pests), Pesticides and fertilizer like phosphate, Dap, synthetic manual are used to control above issues

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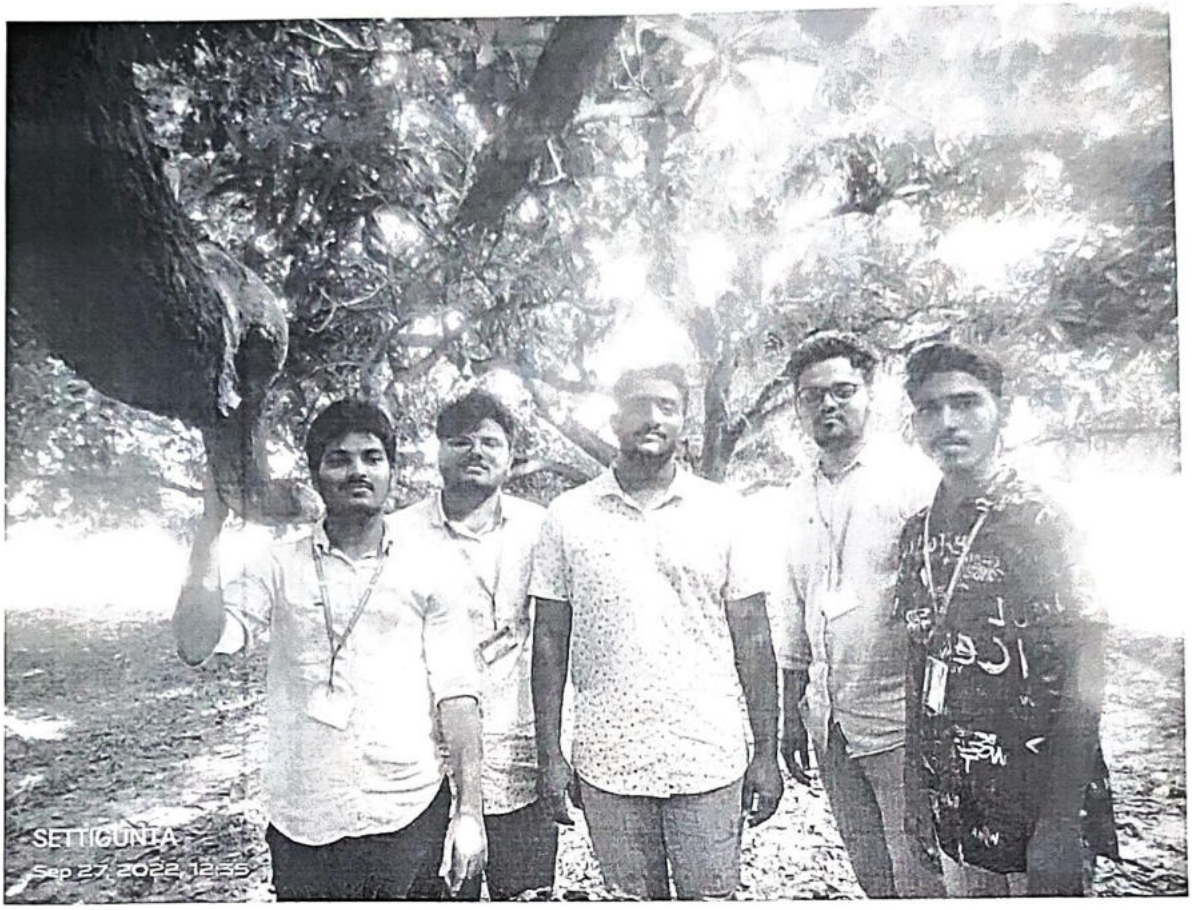

Name of the person is C. Harsha S/O C. Narayana Reddy, He owns a Land of 5 acres, Crop grown in the field is mango, Crop duration is 1 year, Investment on the crop is 2 lac.Profit gain by the farmer between 4-5 lakhs. Irrigation type is Bore Well ,Crop insurance is NO.Issues faced during crop season purgu , banka ,buzi tegalu. Pesticides and fertilizer like chlorofide, baviston, imida gold karate are used to control above issues .

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Name of the farmer is Narayana, he owns a Land of 5 acres. Crop farmed in the field is Banana, Crop duration is 1 Year. Investment on the crop is 2.5lakhs. Profit gained by the farmer is 5 lakhs. Irrigation type of the crop is Drip irrigation, Crop insurance is NO.Issues faced during crop season are matti tegalu , purgulu(pests), Pesticides and fertilizer like phosphate, Dap, synthetic manual ,gold are used to control above issues.

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Awareness programs conducted in Phase – 2:

We gave awareness about the following topics to farmers:

Modern Technologies In Farming

Mobile technology is playing an important role in monitoring and controlling crop irrigation systems. With this modern technology, a farmer can control his irrigation systems from a phone or computer instead of driving to each field.

- Moisture sensors in the ground are able to communicate information about the level of moisture present at certain depths in the soil.Ultrasound is not only for checking on baby animals in the womb. It also can be used to discover what quality of meat might be found in an animal before it goes to the market.
- Livestock managers are wiring up their barn feedlots and pastures with cameras that send images back to the central location like an office or home computer. They can keep a closer eye on the animals when they are away or home for the night.
- Crop sensors help apply fertilisers in a very effective manner, maximising uptake. They sense how your crop is feeling and reduce the potential leaching and runoff into ground water.Instead of making a prescription fertiliser map for a field before you go out to apply it, crop sensors tell application equipment how much to apply in real time.Optical sensors are able to see how much fertiliser a plant may need, based on the amount of light reflected back to the sensor.

The Importance of Crop Rotation

Crop Rotation

Crop rotation is the technique of planting crops in a different area of the garden so that no single crop will be planted in the same place two—or more—years in a row.

Crop rotation helps to maintain soil structure and nutrient levels and to prevent soilborne pests from getting a foothold in the garden.When a single crop is planted in the same place every year, the soil structure slowly deteriorates as the same nutrients are used time and time again. After a few years, the soil becomes unhealthy, drained of those specific nutrients. Simultaneously, insect pests that feed on the single crop—and that spend their larval stage in the soil—become more prolific as their food source remains. These pests become harder to manage every year as their population increases.

Benefits of Crop Rotation

Crop rotation is beneficial for four main reasons: (1) Plants that fix nitrogen, such as peas and other legumes, improve soil quality for future vegetables planted in the same bed. (2) Alternating shallow-rooted and deep-rooted plants in a given area draws nutrients from the soil at varying depths. (3) Soilborne pests that feed on one family of plants are hindered because their food source is not in the same location every year. (4) Gardeners and farmers who practice crop rotation do not need to let beds or fields lie fallow (crop-free) as often as they might otherwise.

Plan Crop Rotations

Make a plan on where individual crops will be planted each year. Sow beds organized by plant family: Alliaceae (onion family), Leguminosae (pea and bean family), Brassicaceae (cabbage family), Solanaceae (nightshades family), Umbelliferae (carrot family), Cucurbitaceae (marrow family), and Chenopodiaceae (beetroot family). In a notebook, draw a sketch of your garden beds and label each with a number. Record every spring what you plant in each bed so that no crop is planted in the same bed for two seasons.

Crop Insurance

National Agricultural Insurance Scheme (NAIS) is implemented from Kharif 2000 season with an objective to provide a measure of financial support to the farmers in the event of Crop loss due to any calamity to restore the credit eligibility for the next season and to stabilize farm incomes.

YSR Free Crop Insurance Scheme Rythu Bharosa Kendras

The Government of Andhra Pradesh has established 10641 Rythu Bharosa Kendra which is

integrated with the village secretariat in order to benefit the farmers under AP Free Crop Insurance Scheme. Considering the Nivar cyclone the details of Crop loss will be displayed at rythu Bharosa Kendra with the village secretariat. The compensation to the farmers would be paid by 31st December 2020. These details will also be available for social audit and all those farmers who are missing from this list will get enrolled in Rythu Bharosa Kendra by the government.

The main objective of the Scheme is to provide insurance cover on crops to all the farmers of the state. Through this scheme, all natural calamities like heavy rains, droughts, cyclones, etc will be covered. For the crops lost due to these natural calamities, the government is going to provide financial cover. Through this scheme, the farmers are not required to pay any premium amount. This will protect them from the financial burden. The implementation of the Scheme will also bring transparency to the system.

Benefits and Features of YSR Free Crop Insurance Scheme

- Through YSR Crop Insurance the Government of Andhra Pradesh is going to provide Crop Insurance to the farmers.
- This scheme has launched on 15 December 2020.
- Under this scheme crop loss due to natural calamities will cover.
- There are around 22 notified crops that cover under the Scheme
- This Scheme will be free of cost.
- The farmers do not require to pay any premium in order to take benefit from this scheme
- The enrollment cost for the scheme is only Rs one
- Under YSR free Crop Insurance the government is going to pay the claim amount by directly crediting the amount to the farmer's Bank
- The government is going to pay Rs 1252 crore under the Scheme
- Through this scheme around 9.48 lakh, farmers will get the benefit
- Around 49.80 lakh farmers have enrolled in this Scheme
- Around 10641 Rythu Bharosa Kendras will help in the implementation of the Scheme
- All the crops that have been lost during the 2020 claim amount will pay on them in the Month of May 2021

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CHAPTER 5: RECOMMENDATIONS AND CONCLUSIONS OF THE MINI PROJECT

The survey has completed by spending time with the People who are doing agriculture In the village.we collected information from farmers they responeded nicely with us they answered the question what we asked regarding farming like what are the crops they cultivates mostly,how mush money is they spent on that crop They also share there experience in farming and the joy they experience in farming.

Hereby, we conclude that the survey which we have conducted in phase -1 for farmers In the village. we collected information from farmers they responeded nicely with us they answered the question what we asked regarding farming like what are the crops they cultivates mostly,how mush money is they spent on that crop ,what are the fertilizers and pesticides they used for crops.We took permission officially from the head of the village conducted this survey, without any interruptions we have finished our first phase of project survey. During our second phase of our community service project, we gave some awareness programs to farmers which have motivated them a lot. Through our survey, we have recognised some problems which are facing by the students and we gave some suggestions to the problems faced by the farmers Finally, we are very much satisfied with the work done by us with the farmers hence we are thankful to the village sarpanch who gave us permission to conduct our survey which is a part of our Community Service Project and gave us full support from his side to complete the survey.

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Signature of Guide **Signature of Coordinator** **Signature of H.O.D**

Student Self-Evaluation for the Community Service Project

Student Name:
Registration No:
Period of CSP:
Date of Evaluation:
Name of the Person in-charge:
Address with mobile number:

Please rate your performance in the following areas:

Rating Scale: 1 is lowest and 5 is highest rank

1) Oral communication	1	2	3	4	5
2) Written communication	1	2	3	4	5
3) Proactiveness	1	2	3	4	5
4) Interaction ability with community	1	2	3	4	5
5) Positive Attitude	1	2	3	4	5
6) Self-confidence	1	2	3	4	5
7) Ability to learn	1	2	3	4	5
8) Work Plan and organization	1	2	3	4	5
9) Professionalism	1	2	3	4	5
10) Creativity	1	2	3	4	5
11) Quality of work done	1	2	3	4	5
12) Time Management	1	2	3	4	5
13) Understanding the Community	1	2	3	4	5
14) Achievement of Desired Outcomes	1	2	3	4	5
15) OVERALL PERFORMANCE	1	2	3	4	5

Date:

Signature of the Student

Evaluation by the Person in-charge in the Community/Habitation

Student Name:
Registration No:
Period of CSP:
Date of Evaluation:
Name of the Person in-charge:
Address with mobile number:

Please rate the student's performance in the following areas:

Rating Scale: 1 is lowest and 5 is highest rank

1) Oral communication	1	2	3	4	5
2) Written communication	1	2	3	4	5
3) Proactiveness	1	2	3	4	5
4) Interaction ability with community	1	2	3	4	5
5) Positive Attitude	1	2	3	4	5
6) Self-confidence	1	2	3	4	5
7) Ability to learn	1	2	3	4	5
8) Work Plan and organization	1	2	3	4	5
9) Professionalism	1	2	3	4	5
10) Creativity	1	2	3	4	5
11) Quality of work done	1	2	3	4	5
12) Time Management	1	2	3	4	5
13) Understanding the Community	1	2	3	4	5
14) Achievement of Desired Outcomes	1	2	3	4	5
15) OVERALL PERFORMANCE	1	2	3	4	5

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Date: **Signature of the Supervisor**

Drive links of Phase-1:https://drive.google.com/drive/folders/1uPwYmJctookHRn5s6Vs-nLZTRssffQF-?usp=sharing

Drive links of Phase-2:https://drive.google.com/drive/folders/1uPwYmJctookHRn5s6Vs-nLZTRssffQF-?usp=sharing

SARPANCH
Settigunta Grama Panchayat
Rly. Kodur (M), YSR Kadapa Dt.
S. Siva Sailaja

Signature of Higher Authority

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Permission letter

1.3.4-ED-FILE 2

CIC

26-09-2022,
Tirupati.

To,
The Head of the Department of cse,
AIIS-CIC-TIRUPATI.

Subject: Permission to visit locality for community service project.

Respected sir,

We are from cic 3rd year, Batch-1 of community service project. we are taking an initiative to awale the people about cyber crimes. so, we are planned to take survey in our selected locality.

For conducting such service projects, we need your support and permission to visit field survey for the three days i.e 26-09-22 to 28-09-22. our teems inform you about the development of the project on the given time

Hope you give permission to conduct the community service project.

Thanking you,

Yours faithfully,
Batch-1 of CIC.

Team members:

P. manoj - 20AK1A3619

L. Biwas kumar Reddy - 20AK1A3610

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hnology & Sciences, Tirupati-5

K. Sai Ravi Teja - 20AK1A3629

J. Raj kumar - 20AK1A3625

Location : Thumbavaripalli

TITLE : Awareness on cyber crimes

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Annamacharya Institute of
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Signature of Guide 26/9/22

Signature of Coordinator

Signature of HOD

PERMISSION LETTER

26-09-2022,
Tirupati.

To,
The Head of The Department Of CSE,
AITS-CIC-TIRUPATI.

Subject: Permission to visit locality for community service project.

Respected sir,

We are from cic 3rd year, Batch-2 of community service project. We are taking an initiative to aware the people about food scarcity and wastage of food. So, we are planned to take survey in our selected locality(karakambadi) regarding food scarcity and we prepared a plan of action to distribute the food.

For conducting such service project, we need your support and permission to visit field survey for three days i.e., from 26-09-2022 to 28-09-2022.Our team informs you about the development of the project on the given time. Hope you give permission to conduct this community service project.

Thanking You,

Yours faithfully,

Batch-2 of CIC.

TEAM MEMBERS:

P. Sai Teja - 20AK1A3630

B. Sai Kumar -20AK1A3628

M.Abhishek-20AK1A3601

S. Chandu-20AK1A3608

K.B. Suman-20AK1A3637

T. Charan Teja - 20AK1A3607

C.Tharun - 20AK1A3641

M.AkashReddy-20AK1A3602

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Location: Karakambadi

TITLE: FOOD COLLECTION AND DISTRIBUTION

SIGNATURE OF GUIDE **SIGNATURE OF COORDINATOR** **SIGNATURE OF H.O.D**

Permission letter

Tirupathi,
26/09/2022

From
CIC
Batch NO:3

TO
The HOD of CSE department,
AITS - Tirupathi.

Respected sir,

Subject: Seeking permission for going to field for community service project

We are the students from III year CIC Batchno:3. As csp has been commenced we need to go to locality and we have to conduct the survey on awareness program, so we will hope that you will grant us the permission.

Thanking you,

Yours obediently,
CIC students,
Batchno:3

Team members:-
1. S. Haseeb - 20AKIA3631
2. G. Navaz - 20AKIA3620
3. S. Mansoor - 20AKIA3633
4. P. Chaitanya prakash - 20AKIA3604
5. S. praveen kumar - 20AKIA3623
6. S. Chandana - 20AKIA3605
7. V. Tejasvi - 20AKIA3640
8. B. Karthik - 20AKIA3615

Location: STV Nagar

Signature of Guide

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Tirupati,
26-09-22.

To

The HOD,

AITT.
Tirupati.

Respected Sir,

I am V. Rakesh, 20AK1A3626, of Batch-4, Community Service Project. I request you to allow our batch-4 students to go to the field trip for the Sake of community service project. Kindly give us permission for this.

Thanking you Sir,

Yours faithfully,
Batch-4,
Community Service Project,
III - CIC.

Location: Thondavada

Guided by:
T. Sai Kishore,
Asst. Professor,
Cse department.

26/9/22

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Ok, permitted
B. Prasad
26/9/22

Team - 4 :

V. Rakesh - 20AK1A3626

A. Geeta Sri - 20AK1A3611

~~A. Keerthi - 20AK1A3616~~

~~R. Lavanya - 20AK1A3617~~

S. Jasmin - 20AK1A3632

~~R. Sai Ashritha - 20AK1A3627~~

~~A. V. Rageshi Reddy - 20AK1A3624~~

S. Dileep - 20AK1A3608

S. Vignesh - 20AK1A3644

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Permission Letter for CSP

Tirupati
23/09/2022

TO,
The Head of the Department, CSE,
AITS-TPT.

project: Rural community cleanliness and Environmental conservation

Respected Sir,

we are Batch-5 of Community Service project from CIC III rd year. As CSP has been Commenced we need to go on field for survey and project work. So please grant us permission for doing Community Service project ~~on~~ from 23/09/2022 – 28/09/2022

Thanking You Sir,

Location: Venkatapuram (Thimmiahgunta)

Your's faithfully

O. Vamsi krishna - 3642
M. Nielesh Kumar - 3621
P. Sunil Reddy - 3638
K. Durga prasad - 3609
N. Sriharshavardhan - 3636
D. Harivardhan - 3645
S. Venkatesh - 3643
S. Harshavardhan - 3646
G. Tarun - 3639

23/9/22

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SRP-II

EDUCATIONAL PERFORMANCE TRACKER

A Socially Relevant Project Report
Submitted to

Jawaharlal Nehru Technological University-A, Anantapur

In partial fulfilment of the requirements
For the award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

By

Project Batch – 29

Laya K - 19AK1A0585

Koteswara P -19AK1A0578

Pavan Kalyan Y -20AK5A0506

Jaya Krishna M -19AK1A0570

GUIDED BY

Asst Prof. T. Sreenivasula Reddy M.Tech.,(PhD).,

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
ANNAMACHARYA INSTITUTE OF TECHNOLOGY AND SCIENCES::TIRUPATI
(AUTONOMOUS)
Venkatapuram(V), Karakambadi(Po), Renigunta(M), Tirupati-517520, A.P.

2019-2023

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ANNAMACHARYA INSTITUTE OF TECHNOLOGY AND SCIENCES::TIRUPATI
(AUTONOMOUS)
Venkatapuram(V), Karakambadi(Po), Renigunta(M), Tirupati-517520, A.P.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

Certified that this is a Bonafede record of the Project Report entitled, **"EDUCATIONAL PERFORMANCE TRACKER", Done by K. Laya, REG NO 19AK1A0585, P. Koteswara, REG NO. 19AK1A0578, Y. Pavan Kalyan, REG NO. 20AK1A0506, M. Jaya Krishna, REG NO. 19AK1A0570** Submitted to the faculty of Computer Science and Engineering, in partial fulfilment of the requirements for the Degree of BACHELOR OF TECHNOLOGY in Computer Science and Engineering from Jawaharlal Nehru Technological University-A, Anantapur during 2019- 2023.

Guide:
Mr. T. Sreenivasula Reddy, M.Tech.,(PhD).,
Assistant Professor,
Dept of CSE,
AITS, Tirupati.

Head of the Department:
Mr. B. Ramana Reddy M.Tech.,
Assistant Professor & HOD,
Dept of CSE,
AITS, Tirupati.

Date:_____

Place: Tirupati

INTERNAL EXAMINER

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of Technology & Sciences, Tirupati-5

EXTERNAL EXAMINER

ANNAMACHARYA INSTITUTE OF TECHNOLOGY AND SCIENCES

Venkatapuram(V), karakambadi(Po), Renigunta(M), Tirupati-517520,A.P

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DECLARATION

We hereby declare that the project titled **"EDUCATIONAL PERFORMANCE TRACKER"** is a genuine project work carried out by us, in **B. Tech (Computer Science and Engineering)** degree course of **Jawaharlal Nehru Technology University-A,Anantapur** and has not been submitted to any other course or university for the award ofour degree by us.

19AK1A0585 – K. Laya
19AK1A0578 – P. Koteswara
20AK5A0506 – Y. Pavan Kalyan
19AK1A0570 – M. Jaya Krishna

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ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of the task would be put incomplete without the mention of the people who made it possible, whose constant guidance and encouragement crown all the efforts with success.

We avail this opportunity to express our deep sense of gratitude and hearty thanks to **Mr. C. GANGI REDDY,** Hon'ble Secretary of AITS-Tirupati, for providing congenial atmosphere and encouragement.

We show gratitude to **Dr. C. NADHAMUNI REDDY**, **Principal** for having provided all the facilities and support.

We would like to thank **Ms. B. RAMANA REDDY** M.Tech., **Assistant Professor & HOD, Computer Science andEngineering** for encouragement at various levels of our Project.

We thankful to our guide **T. SREENIVASULA REDDY,**M.Tech.,(PhD)., **Assistant Professor, Computer Science and Engineering** for his sustained inspiring guidance and cooperation throughout the process of this project. His wise counsel and suggestions were invaluable.

We thankful to APSSDC/IGDC and trainers, for training us on different platforms and for supporting us throughout our project.

We express our deep sense of gratitude and thanks to all the **Teaching** and **Non-Teaching Staff** of our college who stood with us during the project and helped us to make it a successful venture.

We place highest regards to our **Parents**, **Friends** and **well-wishers** who helped a lot in making the report of this project.

19AK1A0585 – K. Laya
19AK1A0578 – P. Koteswara
20AK5A0506 – Y. Pavan Kalyan
19AK5A0570 – M. Jaya Krishna

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CONTENTS

LIST OF FIGURES

LIST OF TABLES

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ABBREVIATIONS

- **DFD**: Data Flow Diagram
- **HTML**: Hyper Text Markup Language
- **PHP**: Hypertext Preprocessor
- **ER:** Entity Relationship

ABSTRACT

EDUCATIONAL PERFORMANCE TRACKER

Educational Performance Tracker is a web-based Application for Educational institutions to track their student's academic performance and providing the same to their students. It saves information such as a student's grades of previous years and attendance at a centralized student database and analyses them.

To ensure that educational activities are going in the Right direction & to fulfil the purpose of education, an institution will have to track their student's progress. This application enables them to do so easily. Students can learn about themselves and improve by doing so through this application. Here we are offering constructive feedback, and continuous evaluation of performance can prove to be the turning point in the life of a student.

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CHAPTER 1: INTRODUCTION

1.1. INTRODUCTION:

The login portals that are currently being used by any educational institute is very simple with only a single option for the students to view their results and basically nothing else. These types of portals are not very helpful to either the student or the educational institutions who want to improve their performance.

To provide a way for educational institutions to monitor their student's performance and for the students to know their academic performance and growth over the years is the reason for the making of this web site.

By offering constructive feedbacks to the students based on their performance, we are building a place for them to monitor their progress and improve themselves.

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1.2. EXISTING SYSTEM:

In the College Login portal, Students can only view their exam results. Students are not getting the proper idea to improve their academic performance. Students are not using their profiles regularly as there is only a results portal. No further feedback and analysis on performance are provided.

1.3-DISADVANTAGES OF EXISTING SYSTEM

- In existing system remaining student's progress is not calculated.
- Student's growth trajectory cannot be seen.
- Feedbacks are not available in Existing system.

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1.4. PROPOSED SYSTEM:

- A web-page by using browser, for educational institutions that allows tracking student academic performance. This web provides users with access to grading dashboards. Students can review such data as the overall curriculum progress, individual average grades, attendance, grade by subject, and others by using the graph analysis. It enables the students to fetch the required data at any given instant. Through graph analysis we'll provide instructions to grow the students in both attendance and studies.
- Learning analytics, discriminative and generative classification models are applied to predict whether a student will be able to complete his degree or not. Graphical analytical results show that proposed method significantly outperforms existing methods due to exploitation of student's information feature sets.

1.5-ADVANTAGES OF PROPOSED SYSTEM

- Providing student's progress over the past few years through the website.
- Feedback based on their performance in each semester.

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CHAPTER 2: ANALYSIS

2.1 INTRODUCTION:

- The student performance analysis system provides an easy way for students in finding their academic attendance report and marks/percentage details along with their progress shown using a graph.
- All the details of student's attendance and marks are added by the admins. Students can use the credentials provided by their institute to login, view attendance, marks in graph-based format, and get a feedback.
- Teachers can login, add new students to the database, and are able to remove a student from the database if necessary and they can also edit a student's info. Basically, this system can help to maintain and manage the records of students, and help both the students and teachers.

2.2 SOFTWARE REQUIREMENT SPECIFICATION:

2.2.1 USER REQUIREMENT

As we know that here the user requirements only two things. user need to go to the website with the specified link that we already provided and also, he needs internet resource to access the Website and with these two things user can easily access the website designed for career guidance.

The main thing in this project is only the user may provide their login details to enter the case details which they need to complaint and a proper detail of the case should be provided to the admin.

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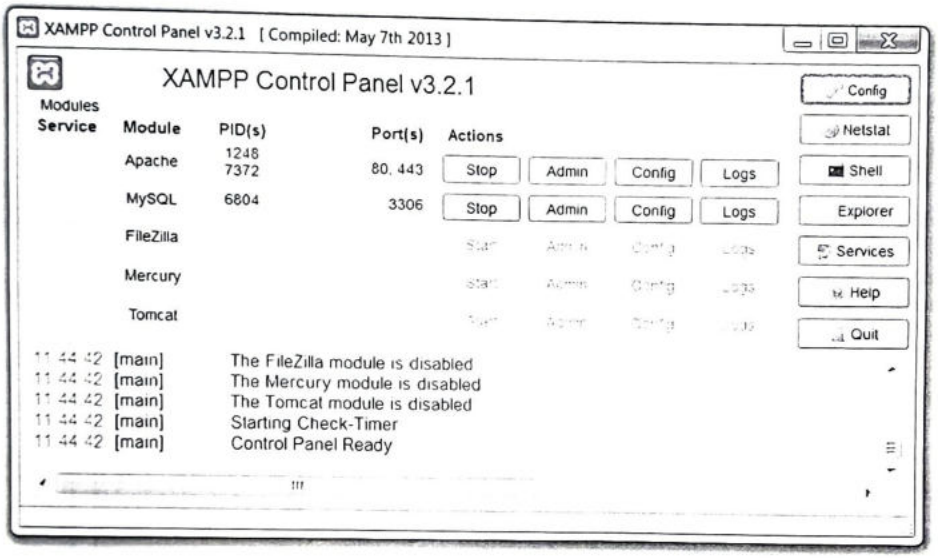
2.2.2 Software requirement:

- XAMPP Control panel
- MYSQL
- Any web browser
- Languages: HTML, CSS, PHP

XAMPP Control panel:



XAMPP is the most popular PHP development environment

XAMPP is a completely free, easy to install Apache distribution containing MariaDB, PHP, and Perl. The XAMPP open-source package has been set up to be incredibly easy to install and to use.

XAMPP is a compilation of free software (comparable to a Linux distribution), it's free of charge and it's free to copy under the terms of the GNU General Public Licence. But it is only the compilation of XAMPP that is published under GPL. Please check every single licence of the contained products to get an overview of what is, and what isn't, allowed. In the case of

commercial use please take a look at the product licences (especially MySQL), from the XAMPP point of view commercial use is also free.

MySQL:

The SQL part of "MySQL" stands for "Structured Query Language". SQL is the most common standardized language used to access databases. Depending on your programming environment, you might enter SQL directly (for example, to generate reports), embed SQL statements into code written in another language, or use a language-specific API that hides the SQL syntax.

MySQL Server was originally developed to handle large databases much faster than existing solutions and has been successfully used in highly demanding production environments for several years. Although under constant development, MySQL Server today offers a rich and useful set of functions. Its connectivity, speed, and security make MySQL Server highly suited for accessing databases on the Internet.

What is MySQL database used for?

MySQL is a relational database management system based on SQL – Structured Query Language. The application is used for a wide range of purposes, including data warehousing, e-commerce, and logging applications.

HTML & CSS:

HTML (Hypertext Markup Language) is used to create the actual content of the page, such as written text, and **CSS** (Cascade Styling Sheets) is responsible for the design or style of the website, including the layout, visual effects and background colour.

In the case of HTML, markup instructions found within a Web page relay the structure of the document to the browser software. For example, if you want to emphasize a portion of text, you enclose it within the tags *and,* as shown here: *This is important text!*

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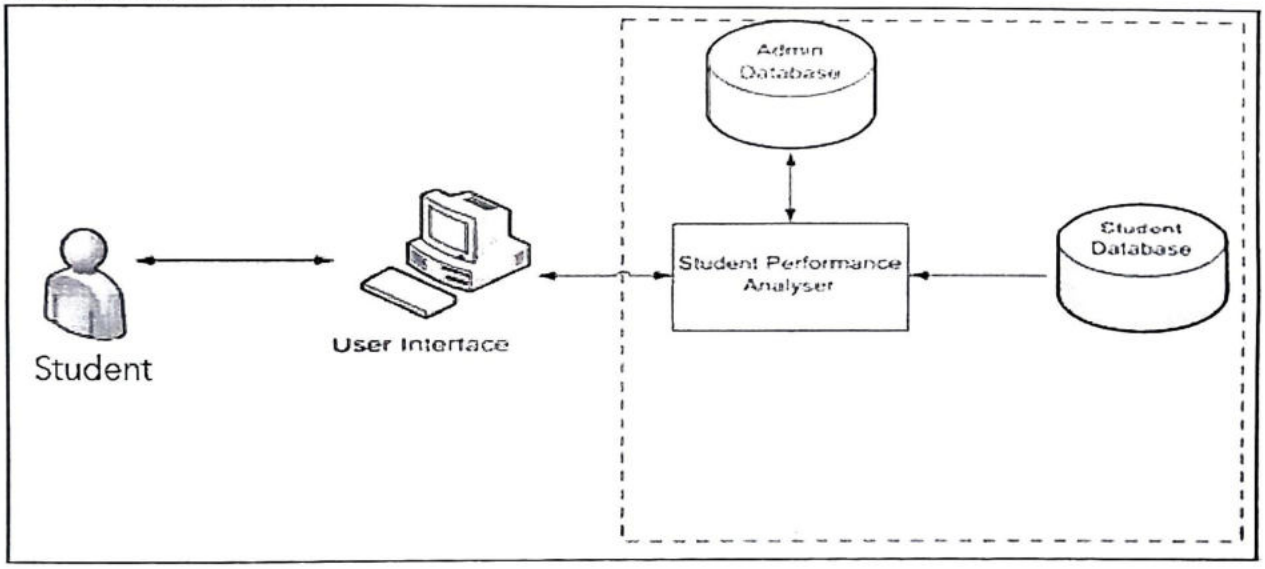
2.2.3-Hardware Requirements

- Laptop or Personal Computer
- Configuration of system
  - Personal Computer or Laptop
  - Windows Version: 8
  - Installed Memory: 4GB
  - ROM : 64GB
  - Processor : Intel Core i3 or higher

2.3 Flowcharts:

The proposed system architecture is designed as shown in below:



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CHAPTER 3: DESIGN

3.1 INTRODUCTION:

Design is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements. One could see it as the application of systems theory to product development. There is some overlap with the disciplines of systems analysis, systems architecture and systems engineering. If the broader topic of product development "blends the perspective of marketing, design, and manufacturing into a single approach to product development, then design is the act of taking the marketing information and creating the design of the product to be manufactured. Systems design is therefore the process of defining and developing systems to satisfy specified requirements of the user.

3.2 DFD / ER Diagrams:

DATA FLOW DIAGRAMS:

A full description of a system consists of a set of data flow diagrams.

1. The DFD is also called as bubble chart. It is a simple graphical formalism that can be used to represent a system in terms of input data to the system, various processing carried out on this data, and the output data is generated by this system.

2. The data flow diagram (DFD) is one of the most important modelling tools. It is used to model the system components. These components are the system process, the data used by the process, an external entity that interacts with the system and the information flows in the system.

3. DFD shows how the information moves through the system and how it is modified by a series of transformations. It is a graphical technique that depicts information flow and the transformations that are applied as data moves from input to output.

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4. DFD is also known as bubble chart. A DFD may be used to represent a system at any level of abstraction. DFD may be partitioned into levels that represent increasing information flow and functional detail.

DATA FLOW DIAGRAM SYMBOLS:

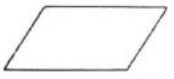
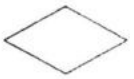
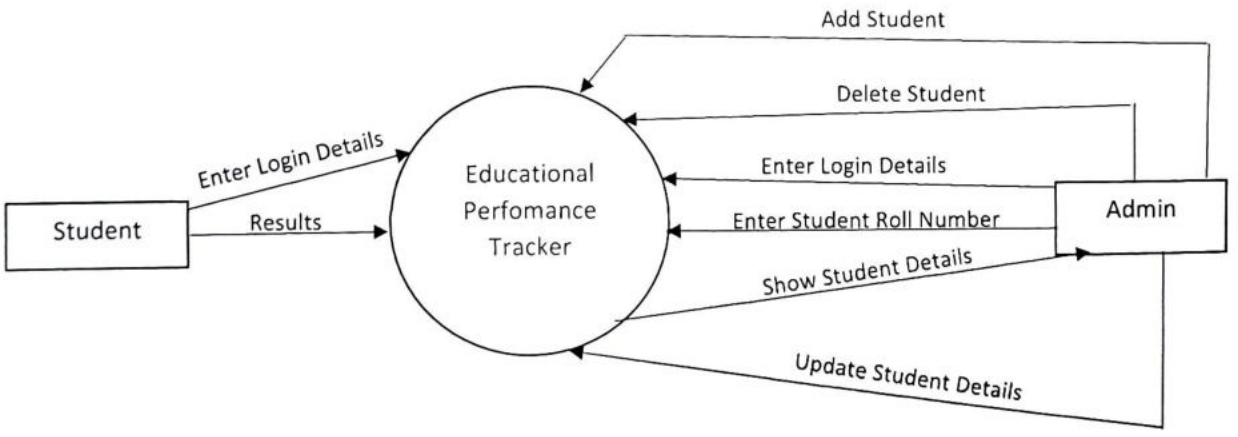
SYMBOLS	DESCRIPTION
	A parallelogram is a data object, often referred to as the I/O shape shows the inputs to and Outputs from a process
	An arrow identifies the data flow.
	Rectangle is also known as process. Flowchart process object is used to illustrate a process, action or an operation
	A square defines a source(originator)or destination of system data
	The terminated is used to show where your flow begins or ends
	❖ Diamond is a decision object is represented as a diamond. This object is always used in a process flow to as a question

Table 3.2.1: Data flow diagram symbols.

Level 0:



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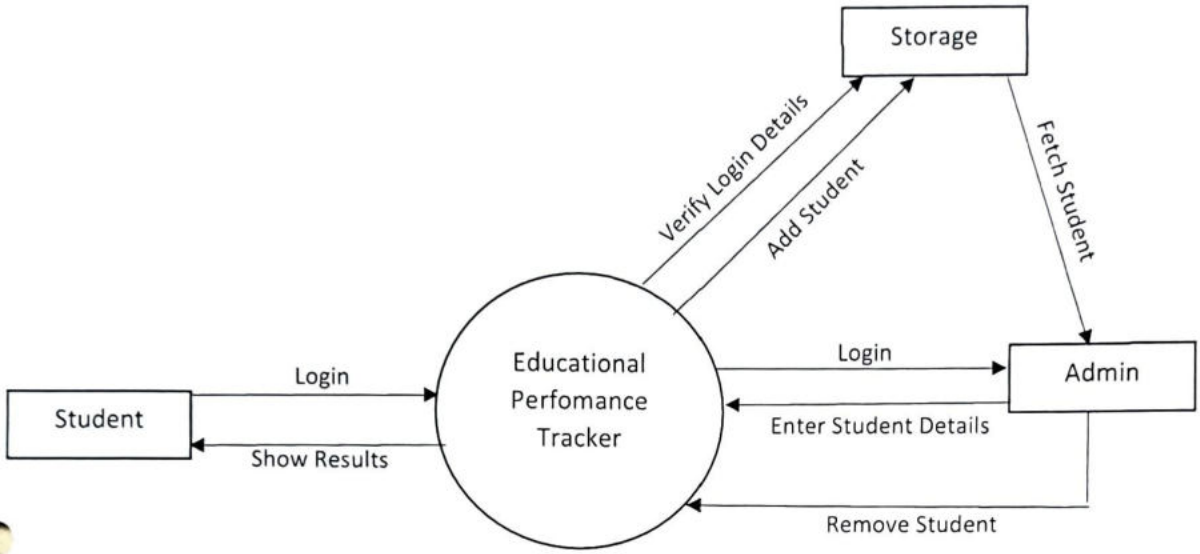
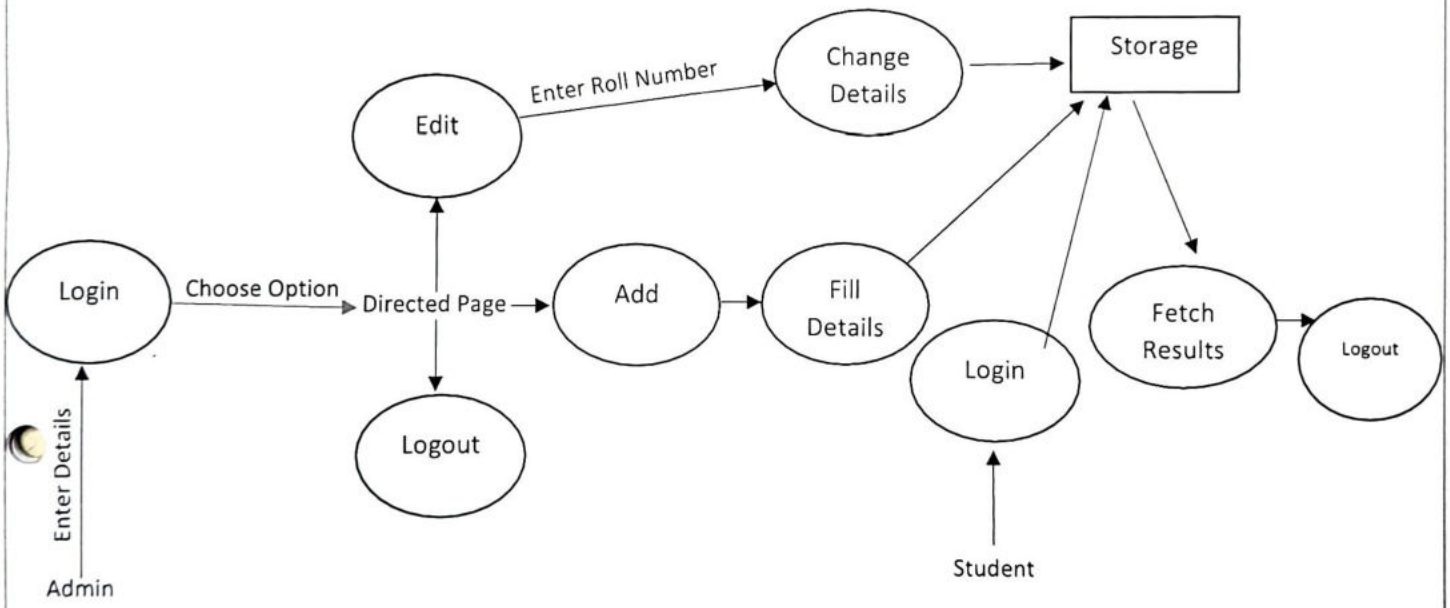
Level 1:



Level 2:



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ENTITY RELATIONSHIP(ER):

ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database. In other words, ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships. The ER Model represents real-world entities and the relationships between them. Creating an ER Model in DBMS is considered as a best practice before implementing your database. Entity Relationship Diagram Symbols & Notations mainly contains three basic symbols which are rectangle, oval and diamond to represent relationships between elements, entities and attributes. There are some sub elements which are based on main elements in ERD Diagram. ER Diagram is a visual representation of data that describes how data is related to each other using different ERD Symbols and Notations.

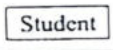
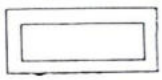
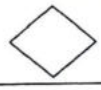
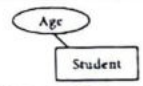
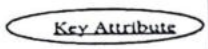
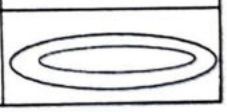
ER Component	Description (how it is represented)	Notation
Entity – Strong	Simple rectangular box	
Entity – Weak	Double rectangular boxes	
Relationships	Rhombus symbol - Strong	
between Entities	Rhombus within rhombus – Weak	
Attributes	Ellipse Symbol connected to the entity	
Key Attribute for Entity	Underline the attribute name inside Ellipse	
Derived Attribute for	Dotted ellipse inside main ellipse Entity	
Multivalued Attribute	Double Ellipse for Entity	

Table 3.2.2: ER diagram symbols.

Following are the main components and its symbols in ER Diagrams:

- **Rectangles:** This Entity Relationship Diagram symbol represents entity types
- **Ellipses:** Symbol represent attributes
- **Diamonds:** This symbol represents relationship types

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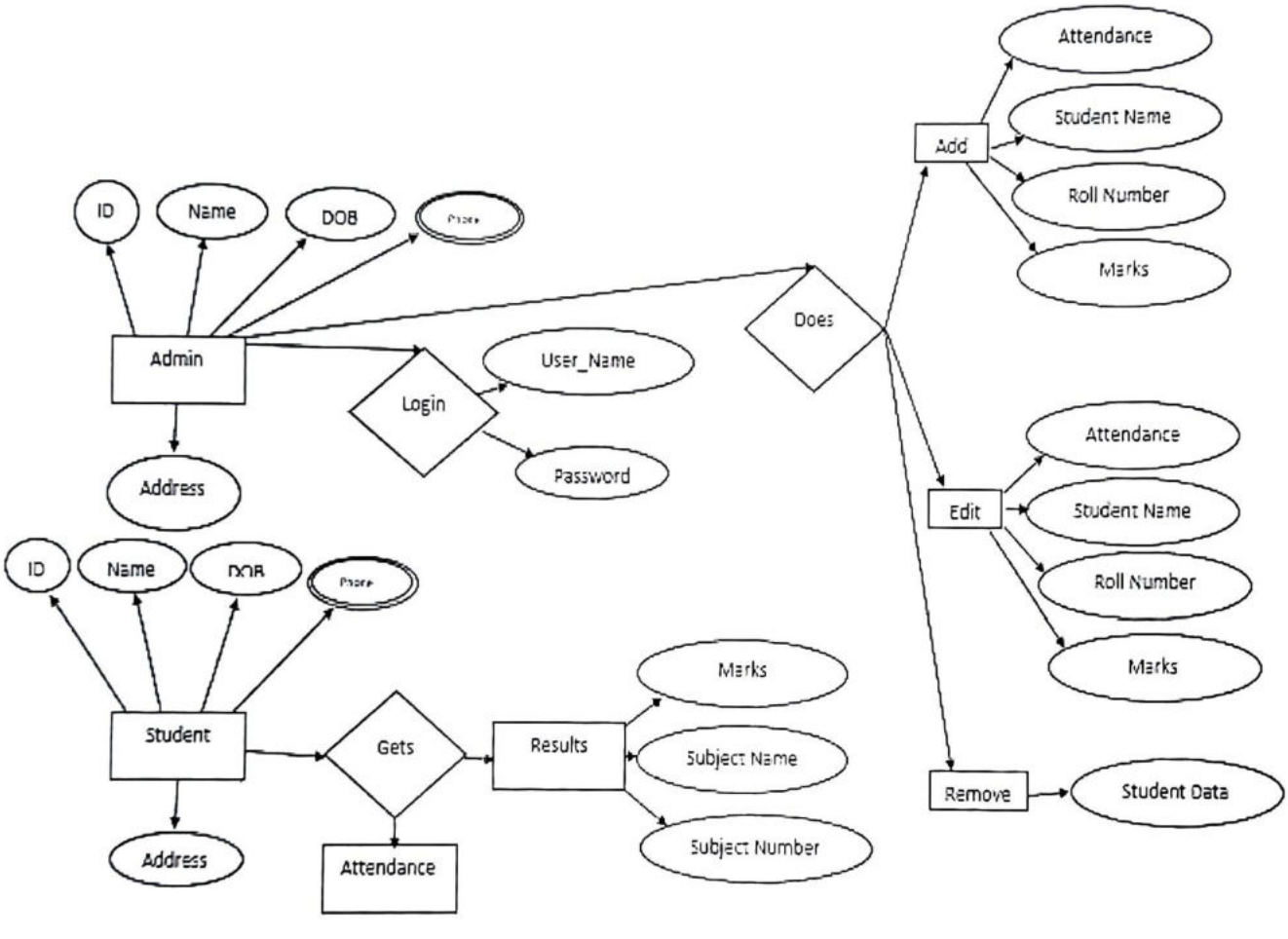
- **Lines:** It links attributes to entity types and entity types with other relationship types
- **Primary key:** attributes are underlined
- **Double Ellipses:** Represent multi-valued attributes



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CHAPTER 4: IMPLEMENTATION & RESULTS

4.1 INTRODUCTION:

Implementation is the stage of the project when the theoretical design is turned out into a working system. Thus, it can be considered to be the most critical stage in achieving a successful new system and in giving the user, confidence that the new system will work and be effective. The implementation stage involves careful planning, investigation of the existing system and its constraints on implementation, designing of methods to achieve changeover and evaluation of changeover methods.

4.2.1 OUTPUT SCREENS:

Fig 4.2.1.1-Login Page for admin

The admin has to enter his credentials to login to the portal.

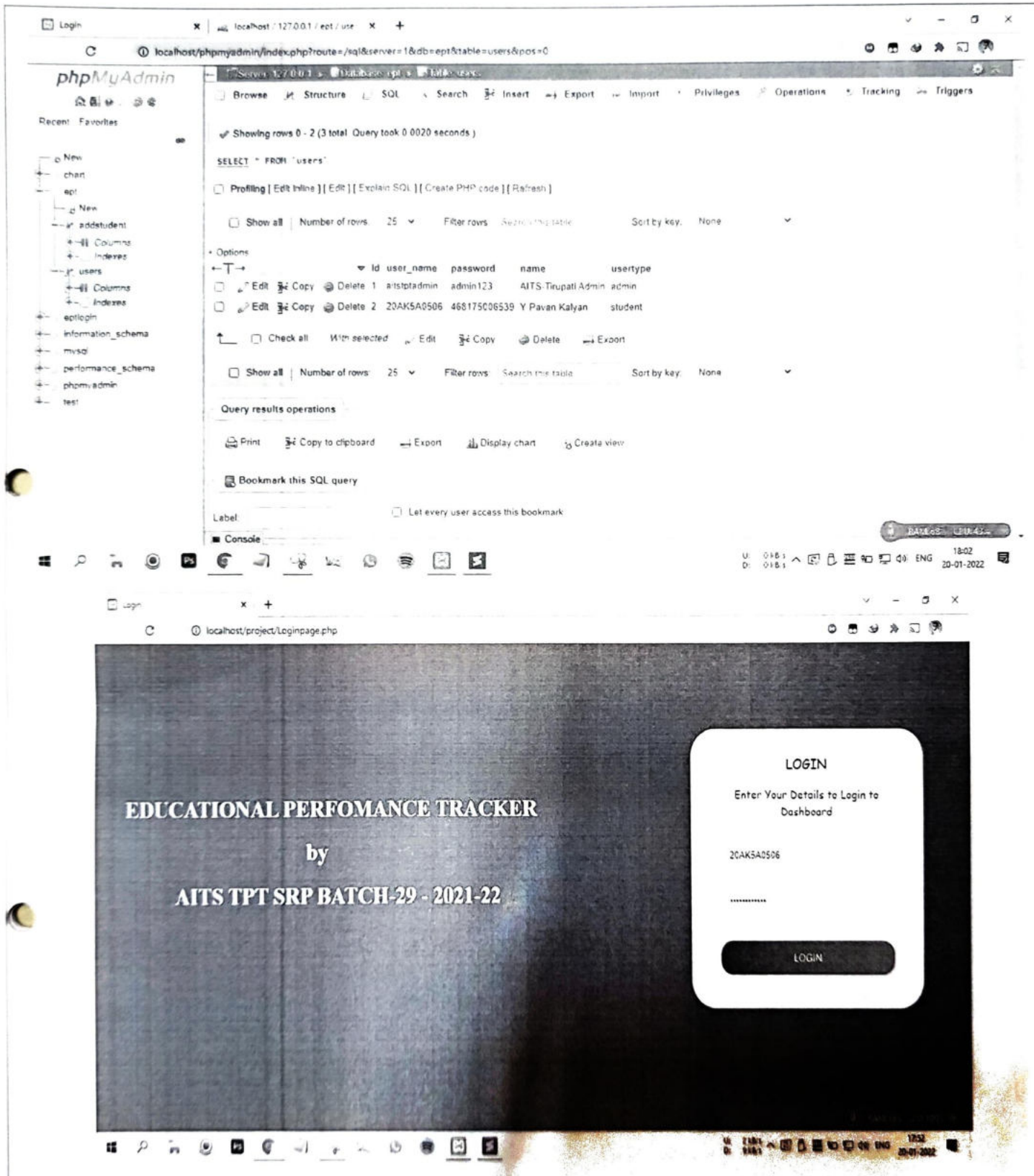

Fig 4.2.1.2-Login page for student

A student has to enter the credentials given to him by the educational institution he is in.

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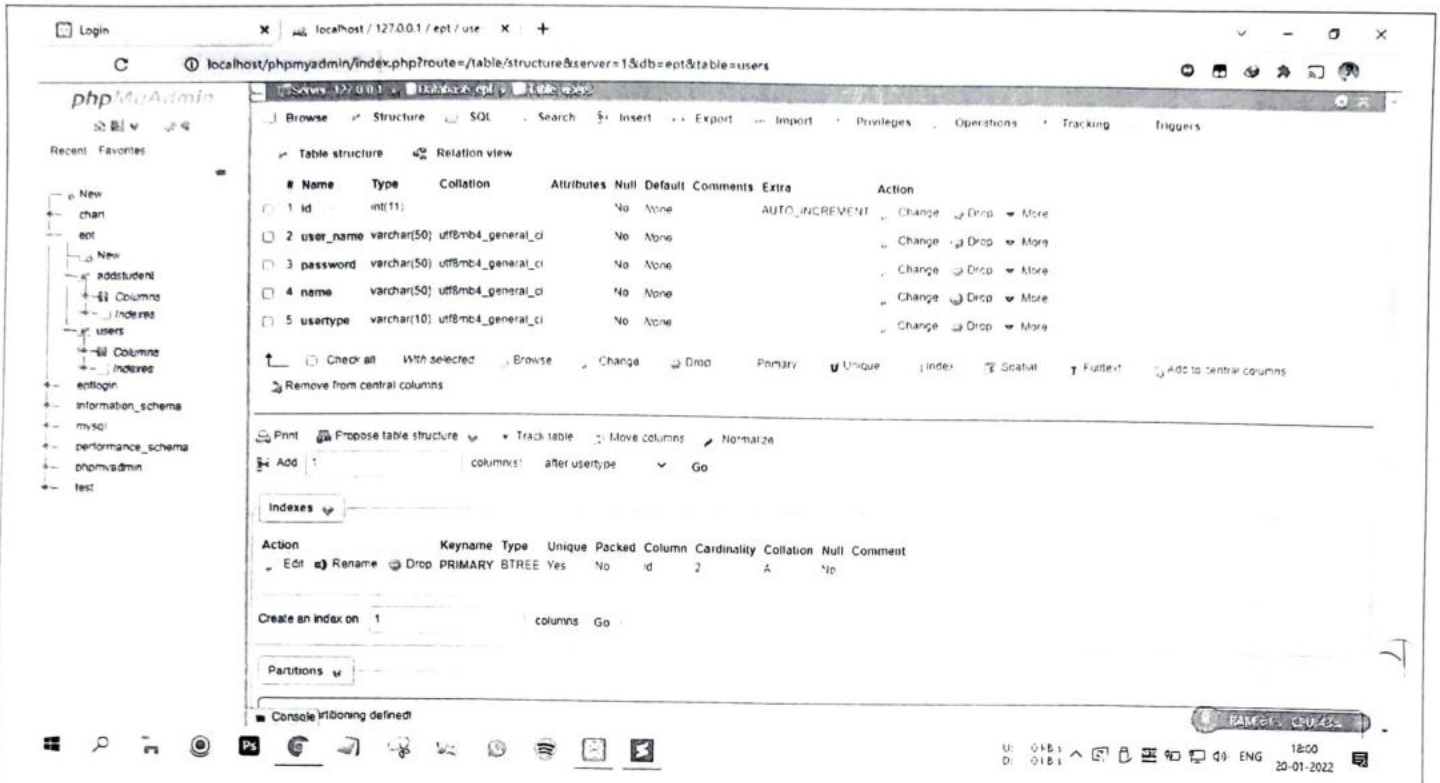

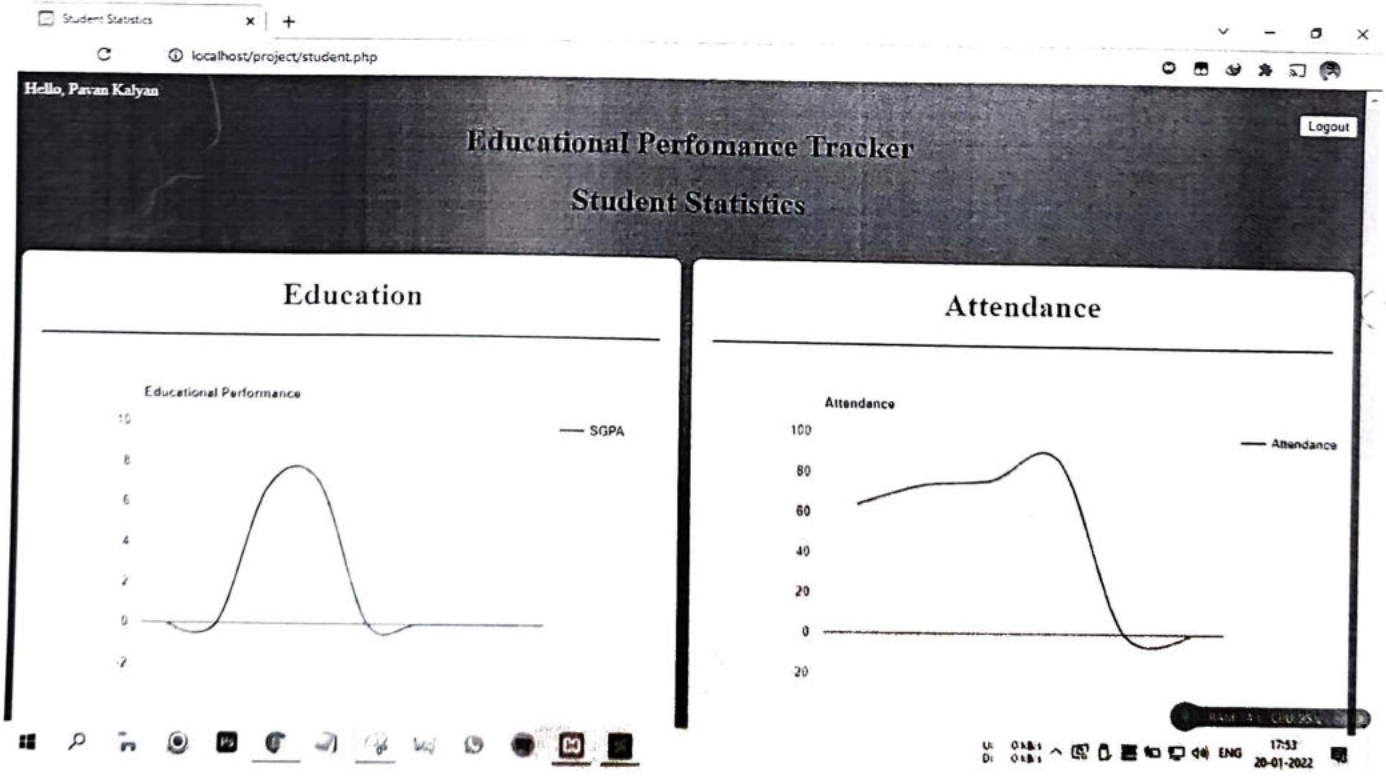

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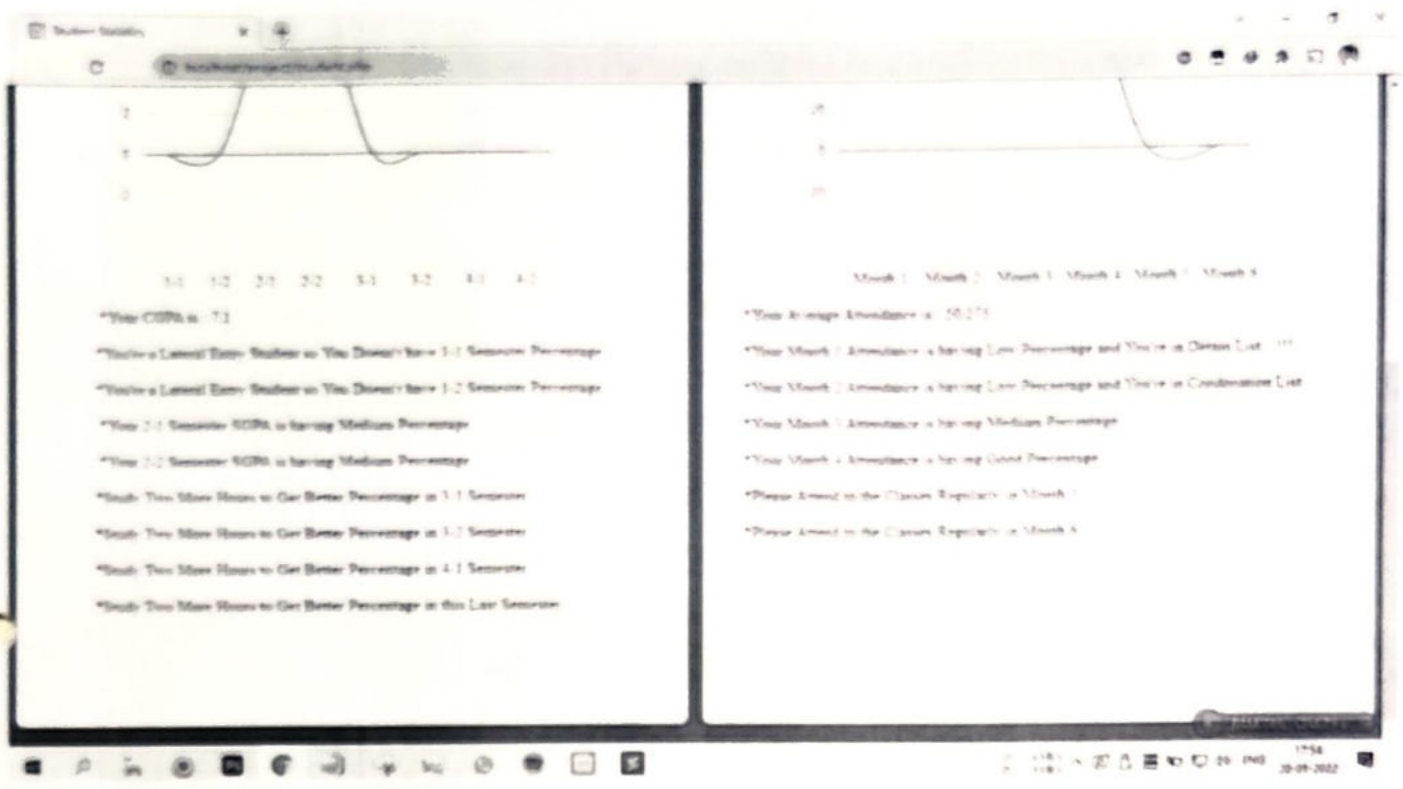

Fig 4.2.1.3-Student page

After login, the student can view his exam results in a graph represention and get a feedback based on his performance.

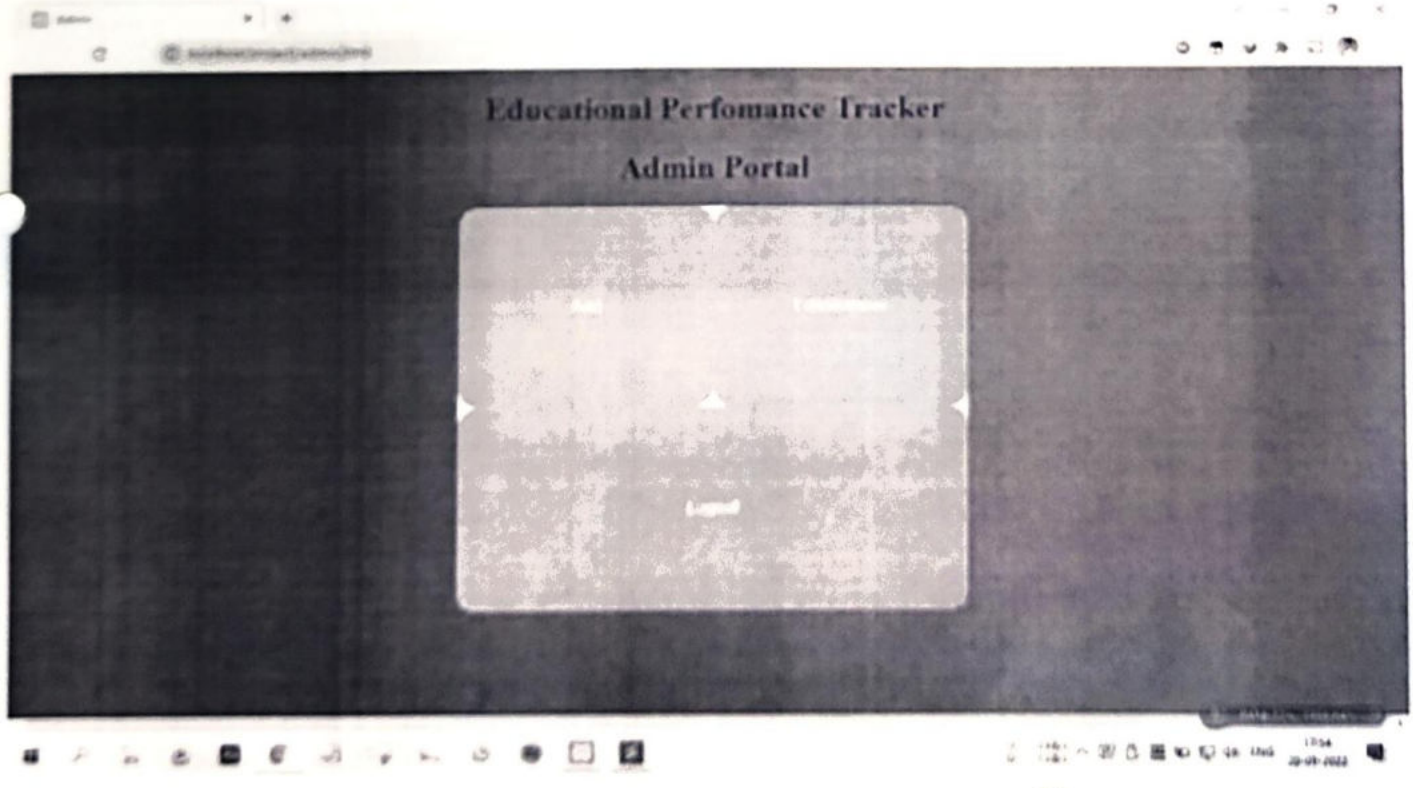

Fig 4.2.1.4-Admin direction page

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Shows that there are three buttons provided for the admin to move his desired section.

- Add – this button allows the admin to add a new student to the database.
- Edit Remove – this button allows the amin the edit the details of a student to the database or remove a student from the database.

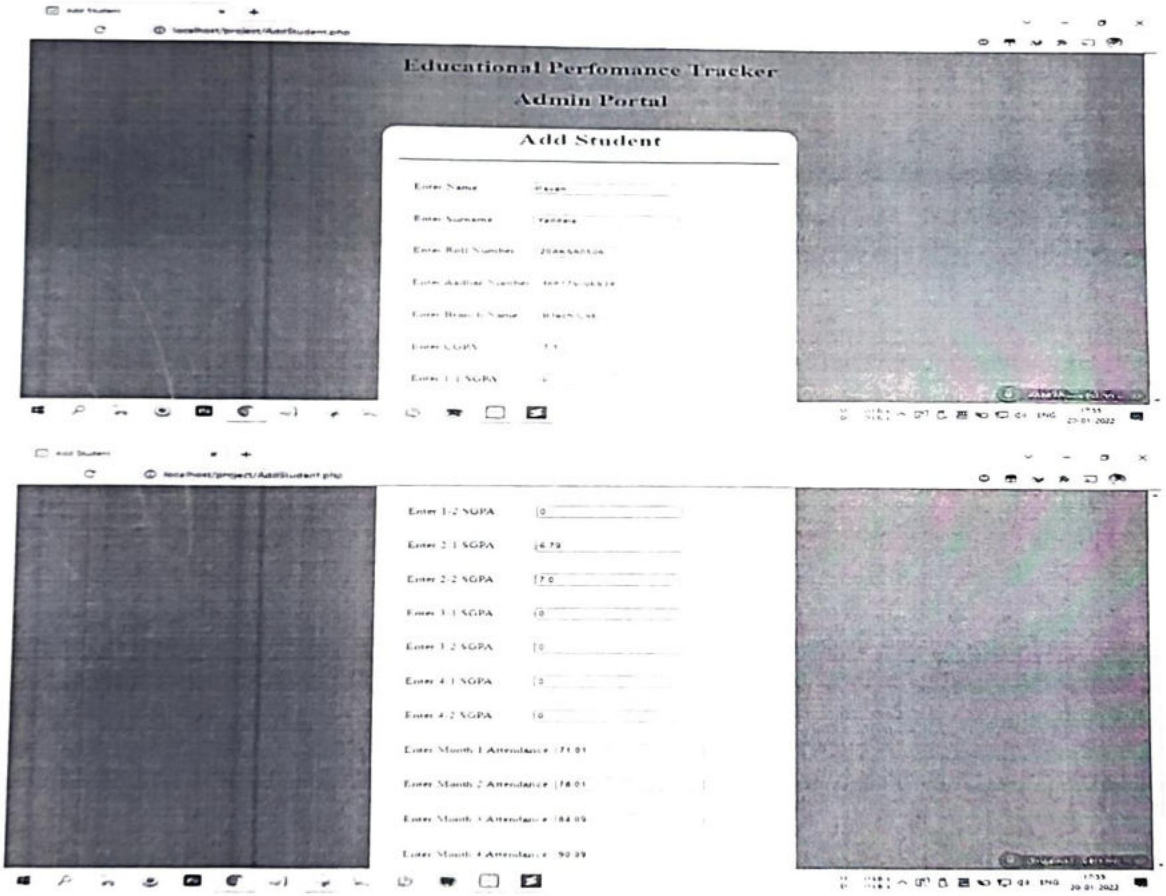

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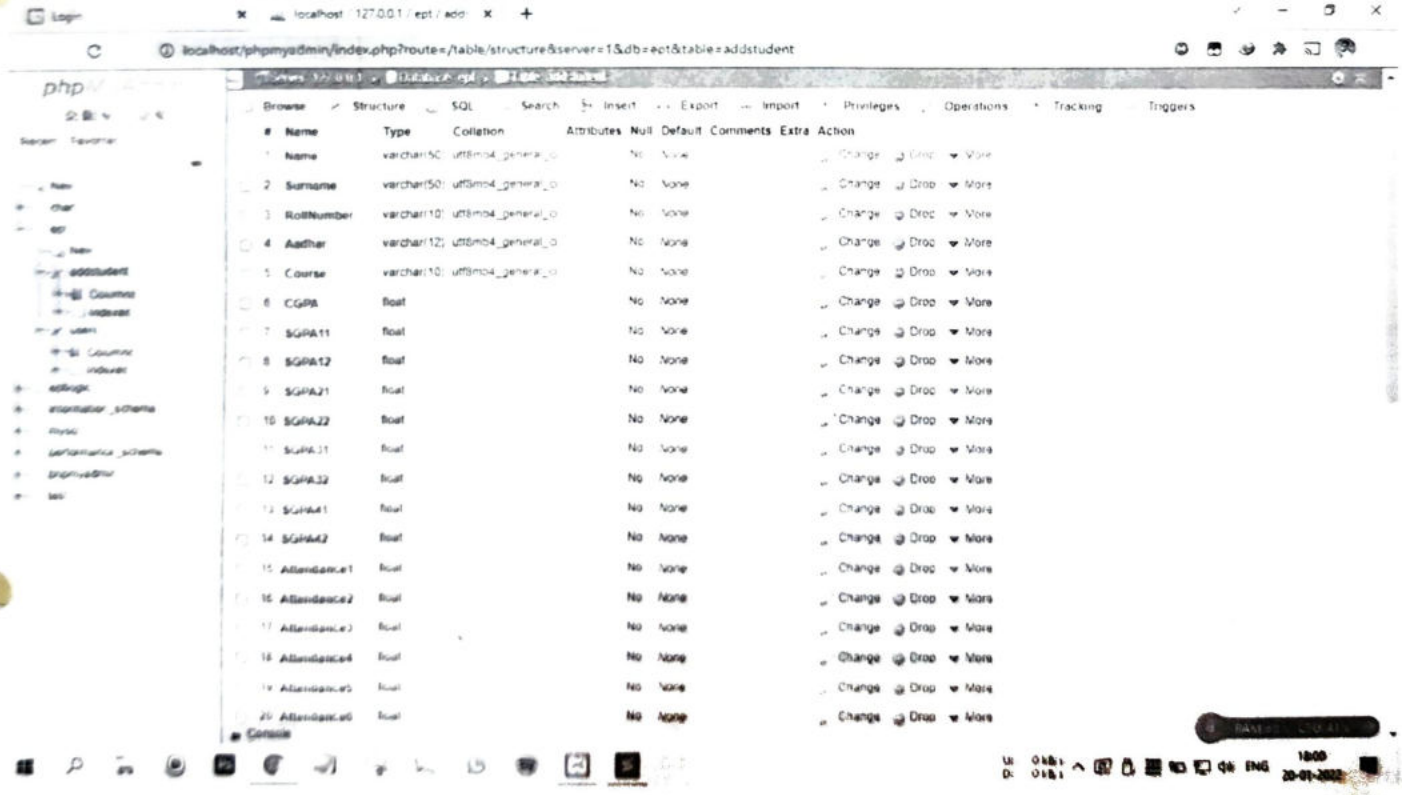
Fig 4.2.1.5-Add student

- Shows that a admin can use the given form to fill the details of a student he wants to add to the database by clicking on the Add Student button.



A picture showing the database side where the details of the student are stored.

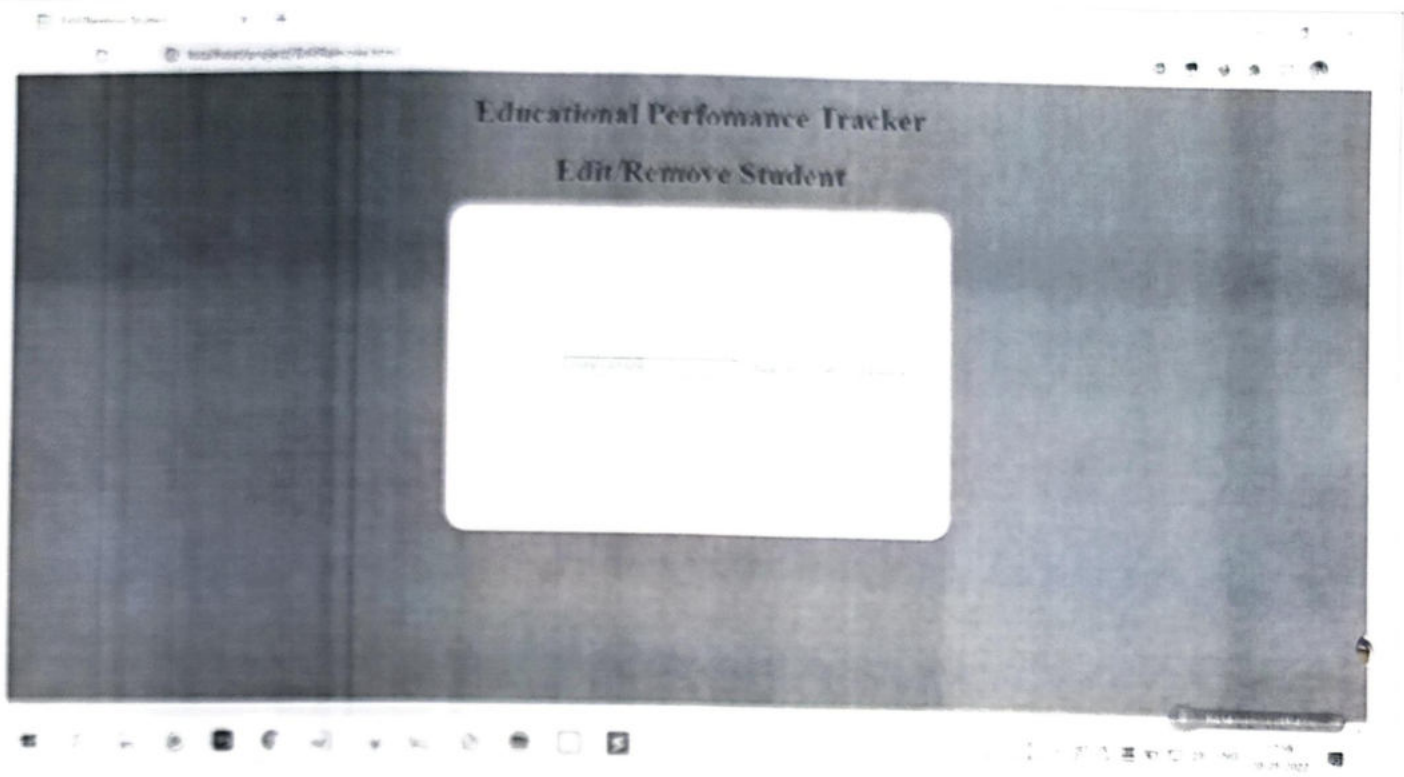


Fig 4.2.16 Edit or Remove Page

- Here the admin can search for a student's details upon entering the rollno of the student

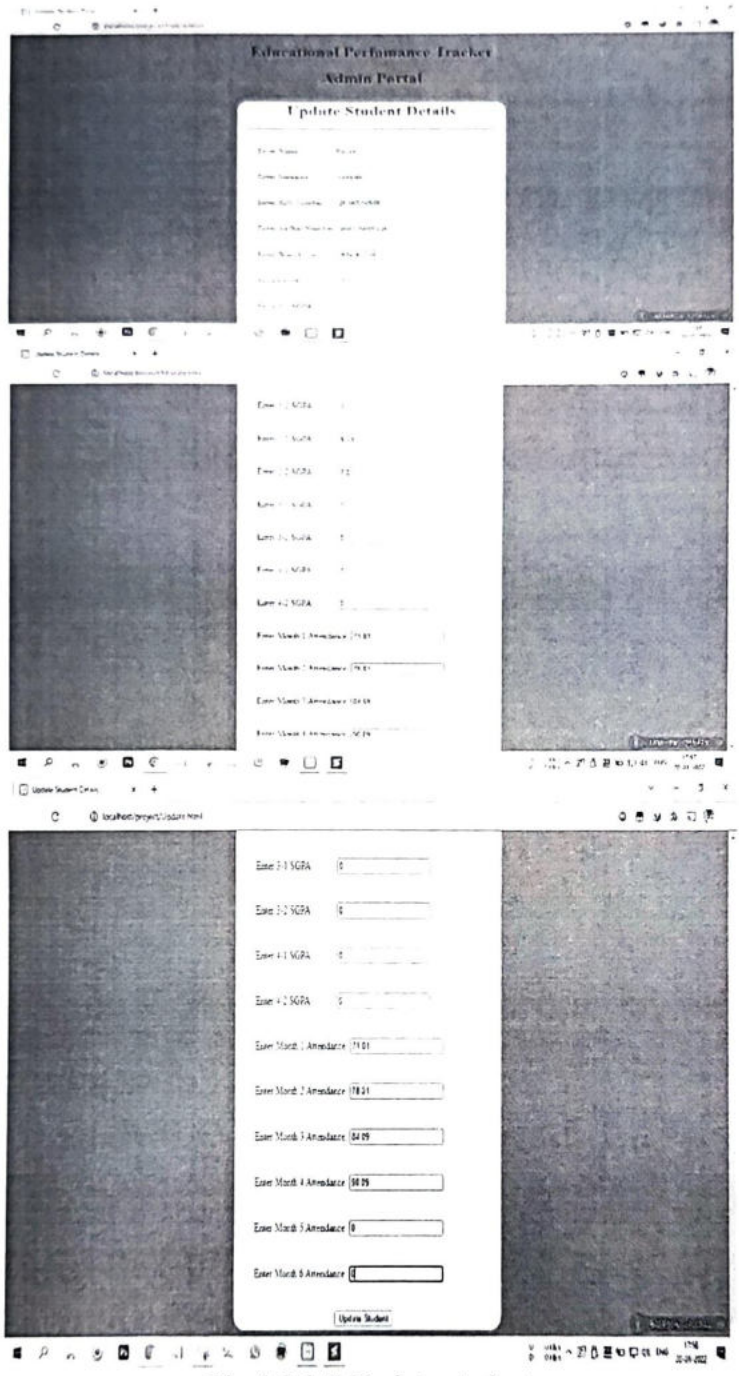


Fig 4.2.1.7 Update student

- This page allows the admin to edit the details of a student by changing the values in the boxes and clickin on the Update Student button.

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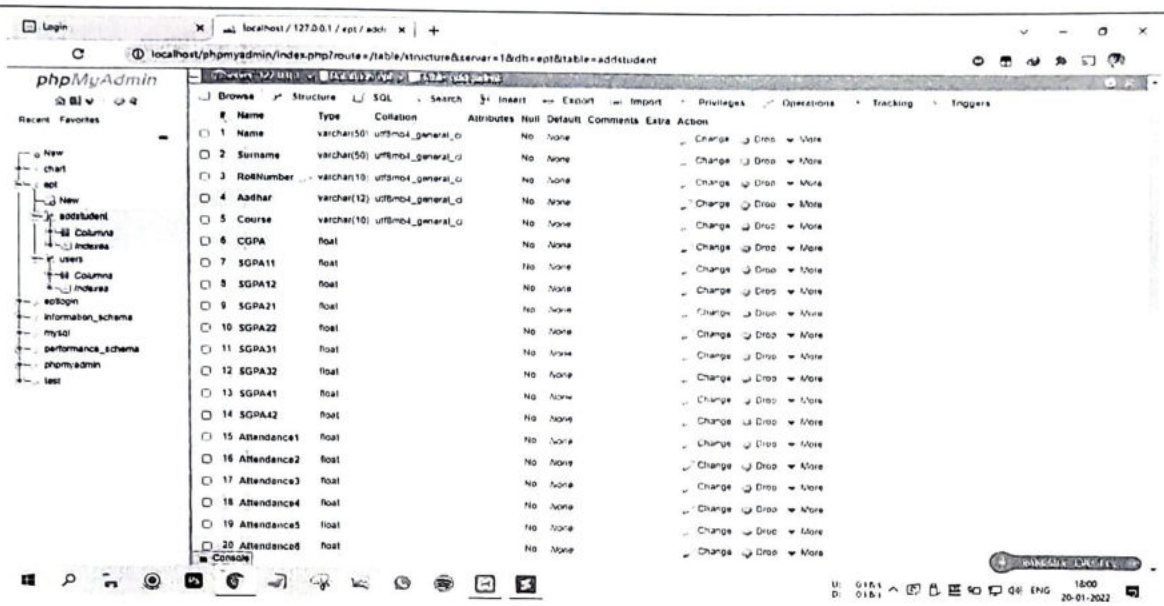

The updated student details will be stored in the database as shown above.

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CHAPTER 5: VALIDATION

5.1 Introduction:

Validation is the process of testing the website in different scenarios and validating the final result of all the test cases. Here, we perform various test on the website.

5.1 Design of test cases and scenarios:

We design various test cases to check the performance and security of the website.

Following are the test cases we designed:

- Proper working of the website.
- Input of credentials.
- Verifications.

To check whether the website is working properly, we will open each page in a web browser and check for errors.

When a user input his credentials, we have to cross verify it with those stored in the database.

After the verification is complete the user will be able to login and perform actions based on his designation as a student or admin.

5.1 Validation:

After the site passes through all the tests successfully, it will be concluded that the website is working properly.

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CHAPTER 6: SAMPLE SOURCE CODE

Code to implement Educational Performance Tracker:

```
<!DOCTYPE html>
<html>
  <head>
    <Title>signinpage</Title>
    <link rel="stylesheet" href="style.css">
  </head>
    <body>
      <div class="imggg">
                <h1> </h1>
                <h1> </h1>
                <h1> </h1>
        <h1>  EDUCATIONAL PERFOMANCE
TRACKER</h1>
                <h1>         
      by</h1>
                <h1>         
    BATCH-29</h1>
      </div>
      <div class="totframe">
        <div class="form">
          <div class="head">
```

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```
                <h3>LOGIN</h3>
                <p>Enter Your Details to Login to Dashboard</p>
            </div>
            <form class="fill">
              <input type="text" placeholder="ID"/>
              <input type="password" placeholder="PASSWORD"/>
                                <input type="radio"  id="admin"
name="designation" value="ADMIN"/>
              <label for="admin">ADMIN</label>
              <input type="radio"  id="student" name="designation"
value="STUDENT"/>
              <label for="student">STUDENT</label>
              <button>login</button>
            </form>
          </div>
        </div>
    </body>
</html>
body
{
  background-image: linear-gradient(90deg,rgb(218, 37, 73),blue);
}
.imggg
{
```

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```
    float: left;
    width: auto;
    color: white;
    border-radius: 1cm;
       font-size: medium;
}
.totframe
{
   width: 360px;
      float: right;
   padding: 8% 5% 0;
}
.totframe .form .head
{
   margin-top: -31px;
   margin-bottom: 25px;
   font-family: cursive;
}
.form
{
   position: relative;
   z-index: 1;
   background: white;
   max-width: 360px;
```

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```
    margin: 0 auto 100px;
    padding: 45px;
    text-align: center;
    border-radius: 1cm;
    box-shadow: 0 0 20px 0 rgba(0, 0, 0, 0.2), 0 5px 5px 0 rgba(0, 0, 0,
0.24);
}
.form input[type="text"],[type="password"] {
    font-family: "Roboto", sans-serif;
    outline: 0;
    background: #f2f2f2;
    width: 100%;
    border: 0;
    margin: 0 0 15px;
    padding: 15px;
    box-sizing: border-box;
    font-size: 14px;
}
.form button {
    font-family: "Roboto", sans-serif;
    margin-top: 4mm;
    text-transform: uppercase;
    outline: 0;
    background-image: linear-gradient(90deg,blue,rgb(218, 37, 73));
```

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```
    width: 100%;
    border: 0;
    border-radius: 0.5cm;
    padding: 15px;
    color: #ffffff;
    font-size: 14px;
    cursor: pointer;
}
```

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CHAPTER 7: CONCLUSION & FUTURE ENHANCEMENT

CONCLUSION:

- This web site will help students in further understanding their progress over the past few years and gives feedback based on their performance.
- The graph constructed on their progress will give visual information to students and helps them in quickly identifying their progress.
- By following the feedback, they can plan better when they are preparing their schedule.

FUTURE ENHANCEMENT:

On Upcoming Future Updates we'll streamline the existing modules and add a feature for a student to change his password and username. And allow a student to make a schedule in the portal. Allow the student to give feedback to the admin.

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CHAPTER 8: BIBLIOGRAPHY

REFERENCES

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- **AITT Staff login - https://examinations.aits-tpt.edu.in/StaffLogin**
- **Education Tracking- https://en.wikipedia.org/wiki/Tracking_(education)**
- **JNTU Login - https://studentservices.jntuh.ac.in/oss/login.html**

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SRP-IV

RENTAL HOUSE MANAGEMENT SYSTEM

A Socially Relevant Project Report
Submitted to
ANNAMACHARYA INSTUITE OF TECHNOLOGY AND SCIENCES
In partial fulfilment of the requirements
For the award of the degree of
BACHELOR OF TECHNOLOGY
In
COMPUTER SCIENCE AND ENGINEERING
By

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19AK1A05A0 - G.MEGHANA
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Under the guidance of
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Assistant Professor

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Venkatapuram(V), Karakambadi(Po), Renigunta(M), Tirupati-517520, A.P.

2019-2023

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Venkatapuram(V), Karakambadi(Po), Renigunta(M), Tirupati-517520, A.P.

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

CERTIFICATE

Certified that this is a bona fide record of the socially relevant project report entitled **"RENTAL HOUSE MANAGEMENT SYSTEM "**, done by **Ms.B.MADHUSREE REG NO.19AK1A0592, Ms.G.MEGHANA REG NO.19AK1A05A0, Mr.K.NARESH KUMAR REG NO.19AK1A05B1, Ms.B.MOUNISHA REG NO.19AK1A05A5,** ,Submitted to the department of Computer Science an Engineering, in partial fulfilment of the requirements for the Degree of BACHELOR OF TECHNOLOGY in Computer Science and Engineering from Annamacharya Instuite of Technology and Sciences Tirupati during the year 2019-2023.

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Head of The Department:

Mr. B. Ramana Reddy M.Tech.,
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Dept. of CSE,
AITS, Tirupati

INTERNAL EXAMINER

EXTERNAL EXAMINER

Date:_____

Place:Tirupati

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Venkatapuram (V), Karakambadi (Po), Renigunta(M), Tirupati-517520

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DECLARATION

We hereby declare that the project titled **"RENTAL HOUSE MANAGEMENT SYSTEM"** is a genuine project work carried out by us, in B.tech (Computer Science and Engineering) degree course of Annamacharya Institute of Technology and Sciences, Tirupathi and has not submitted to any other course or university for the award of our degree by us

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19AK1A05A0 - G.MEGHANA
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19AK1A05A5 - B.MOUNISHA

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ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of the task would be incomplete without the mention of the people who made it possible, whose constant guidance and encouragement crown all the efforts with success.

We avail this opportunity to express our deep sense of gratitude and hearty thanks to **Mr. C. GANGI REDDY,** for providing congenial atmosphere and encouragement.

We show gratitude to **Dr. C. NADHAMUNI REDDY, Principal** for having provided all the facilities and support.

We would like to thank **Mr. B. Ramana Reddy, Assistant Professor & HOD,** Computer Science and Engineering for encouragement at various levels of our Project.

We are thankful to our guide **Mr. M. Kiran Moni, Assistant Professor,** Computer Science and Engineering for her sustained inspiring guidance and cooperation throughout the process of this project. Her wise counsel and suggestions were invaluable.

We express our deep sense of gratitude and thanks to all the Teaching and Non-Teaching Staff of our college who stood with us during the project and helped us to make it a successful venture.

We place highest regards to our **Parents, Friends** and **Well-wishers** who helped a lot in making the report of this project.

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CONTENTS

ABBREVIATIONS

--> DFD: Data Flow Diagram

--> ER: Entity Relationship

LIST OF FIGURES

LIST OF TABLES

HEAD
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CHAPTER-I

ABSTRACT

Now a days city life dependent largely on technology we have to stay far away from our home for study purpose and work purpose and work purpose.We need houses on rent for accomadation and we had the first hand experience of how difficult it is to find a proper place for accomadation.Therefore we came up with an idea of developing an Rental House Management System which can make things easy for city dwellers. The idea behind developing this web application is that owner can rent their property using this rental house management system.In this system the owner can maintain their property document keeping and managing property registration and also access its information and manage all the adding, updating, deleting etc. The admin user can upload information regarding property and cancellation of property are changing renters choice.

CHAPTER-1

INTRODUCTION

1.1 INTRODUCTION:

The Rental House Management System is searching based on the Apartment House for rent in The system is based on Owners and the Customers. The Owner is updated on the Apartment details, and rent details. The Customer is details about the Room space, Room rent and the Address Details also. The rental house system is best suitable the owners because time save and the only contact and the eligible person and there is no need to explain the room details on the speak . Hence this system is best applicable for the above reasons makings rental house an easy process through an online system.

CHAPTER-2

SYSTEM ANALYSIS

System analysis is defined as the process of gathering and interpreting facts, diagnosing problem and using the facts to improve the system. The objective of the system analysis phase is the establishment of the requirements of the system to be acquired, developed and installed. Fact finding or gathering is essential to any analysis of requirement. A detailed study of the system is done by making use of various techniques. The data collected must be scrutinized to arrive at a conclusion. The conclusion is an understanding of how the system functions. The system is called existing system. Now, the existing system is subjected to close study and the problem areas identified. The solutions are given as a proposal. The proposed system is presented to the user.

2.1. EXISTING SYSTEM

Currently the most property managers manage property and tenants details on papers. Once customers finds a vacant house, they can call or email manager of the houses indicating the size of the house they would like rented to them The property manager can email them back giving them all the details about the house they are requesting.when the current system recording the details of various activities of user is completely manual and entails a lot of paper work .The existing system only provides text based interface which is not as user friendly as Graphical user interface.

2.2. DISADVANTAGES OF EXISTING SYSTEM

- Inconsistency in data entry, rooms for errors.
- Large ongoing staff training cost.
- System is dependent on good individuals.
- Reduction in sharing the information and customer services.
- Time consuming.
- Costly to provide reports.

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2.3. PROPOSED SYSTEM

- User initially want to sign up and create the account and user logs in the system automatically will show number of rented house in particular places.
- In this information like owner name ,house rent, address, and mobile number will the user to avoid the house broker, rent payment form, registration form.
- Each form has several command buttons like new, search, cancel, Back and exit. With the command buttons you can manipulate the database.

2.4. ADVANTAGES OF PROPOSED SYSTEM

- Eliminate paper-based process
- Intuitive & user-friendly
- Customization and flexibility
- Optimal resource allocation

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CHAPTER-3

SYSTEM REQUIREMENTS AND SPECIFICATIONS

3.1. HARDWARE SPECIFICATIONS

The hardware requirements may serve as the basis for a contract for the implementation of the system and should therefore be complete specifications of the whole system. They are used by software engineers as the starting point for the system design. It should what the system do and not how it should be implemented.

- A standalone computer (i5 processor)
- RAM-4GB

3.2. SOFTWARE SPECIFICATIONS

The software requirements document is the specification of the system. It should include both a definition and a specification of requirements. It is a set of what the system should do rather than how it should do it. The software requirements provide a basis for creating the software requirements specifications.

- Operating System : Windows 10
- Programming languages: Python, PHP, XAMPP,MYSQL

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CHAPTER-4

SYSTEM DESIGN

4.1 Data Flow Diagram:

A data flow diagram is a graphical tool used to describe and analyses movement of data through a system. These are the central tool and the basis from which the other components are developed. The transformation of data from input to output, through processing, may be described logically and independently of physical components associated with the system. These are known as the logical data flow diagrams. The physical data flow diagrams show the actual implements and movement of data between people, departments and workstations.

A full description of a system consists of a set of data flow diagrams.

1. The DFD is also called as bubble chart. It is a simple graphical formalism that can be used to represent a system in terms of input data to the system, various processing carried out on this data, and the output data is generated by this system.

2. The data flow diagram (DFD) is one of the most important modelling tools. It is used to model the system components. These components are the system process, the data used by the process, an external entity that interacts with the system and the information flows in the system.

3. DFD shows how the information moves through the system and how it is modified by a series of transformations. It is a graphical technique that depicts information flow and the transformations that are applied as data moves from input to outpu4. DFD is also known as bubble chart. A DFD may be used to represent a system at any level of abstraction. DFD may be partitioned into levels that represent increasing information flow and functional detail

DATA FLOW SYMBOLS:

Symbol	Name	Function
		
		
		
		

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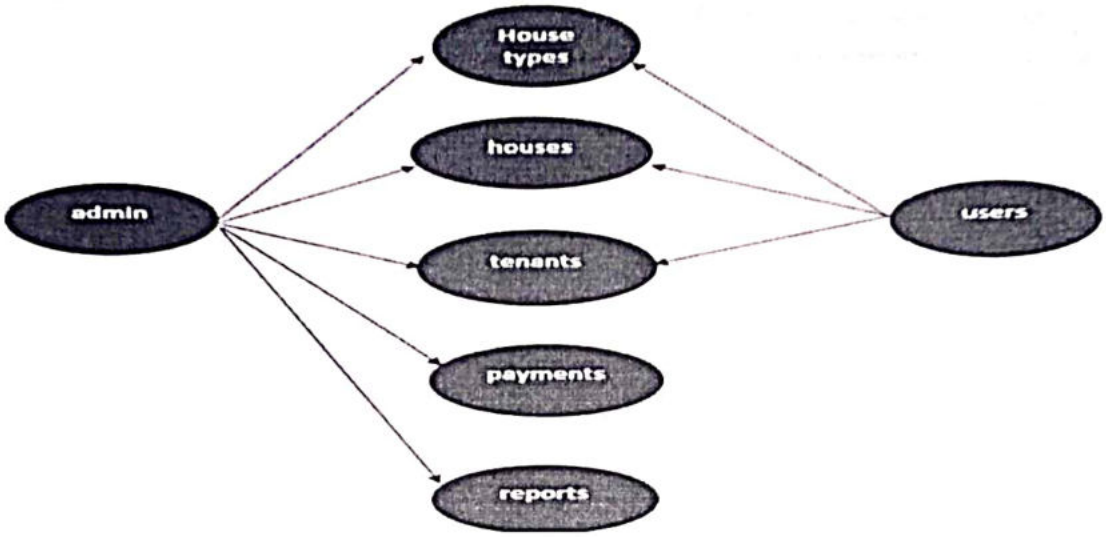
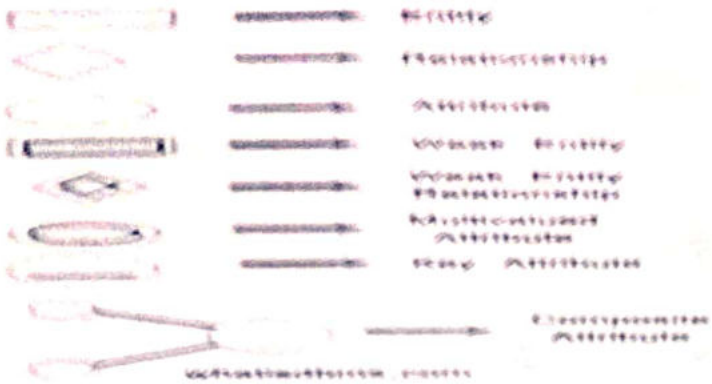


Fig 4.1:- data flow diagram for rental house management system

ER-DIAGRAM:

ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database. In other words, ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships. ER Diagrams contain different symbols that use rectangles to represent entities, ovals to define attributes and diamond shapes to represent relationships. At first look, an ER diagram looks very similar to the flowchart. However, ER Diagram includes many specialized symbols, and its meanings make this model unique. The purpose of ER Diagram is to represent the entity framework infrastructure ER Model stands for Entity Relationship Model is a high-level conceptual data model diagram. attributes. There are some sub-elements which are based on main elements Multi shopping site app AITS ,Dept. of CSE,TIRUPATHI in ERD Diagram. ER Diagram is a visual representation of data that describes how data is related to each other using different ERD Symbols and Notations. Following are the main components and its symbols in ER Diagrams:



4.2:ER-DIAGRAM

Fig 4.2:-ER diagram of attendance management system using local binary pattern histogram algorithm

4.3 FLOW CHART:

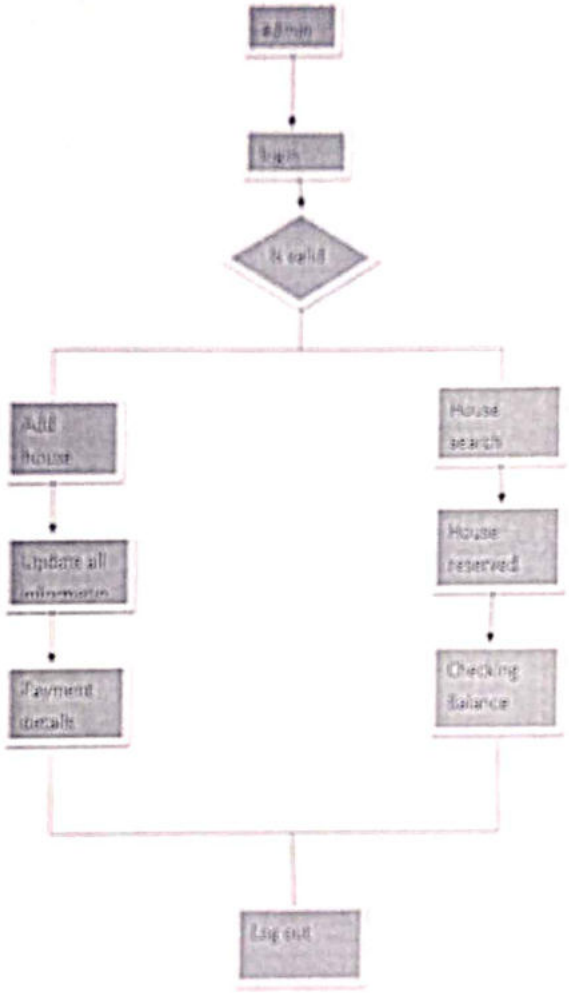


Fig 4.3:-flow chart for rental house management system

CHAPTER-5

IMPLEMENTATION & RESULTS

MODULES

This system has the following

- House types
- Houses
- Tenants
- Payments
- Reports
- Users

House types

In house types it contains the following aspects

Types of houses

Houses

In Housesit contains the following:

- House no
- House type
- Description
- Price

Tenants

- It contains information about tenants.

Payments

- It contains information about payments.

Reports

- It contains monthly balance reports

Users

- It contains the user information

5.1 SAMPLE CODE

```
<?php
$curr_dir = dirname(__FILE__);
include("{$curr_dir}/defaultLang.php");
include("{$curr_dir}/language.php");
include("{$curr_dir}/lib.php");

$admin_tools = new AdminTools($_REQUEST);

class AdminTools{
        private $request, $lang;

        public function __construct($request = array()){
                global $Translation;

                if(!getLoggedAdmin()) return;
                $this->lang = $Translation;

                /* process request to retrieve $this->request, and then execute the requested action */
                $this->process_request($request);
                echo call_user_func_array(array($this, $this->request['action']), array());
        }

        protected function process_request($request){
                /* action must be a valid controller, else set to default (show_admin_tools) */
                $controller = isset($request['action']) ? $request['action'] : false;
                if(!in_array($controller, $this->controllers())) $request['action'] = 'show_admin_tools';
```

```
        $this->request = $request;
}

/**
 * discover the public functions in this class that can act as controllers
 *
 * @return array of public function names
 */
protected function controllers(){
        $rc = new ReflectionClass($this);
        $methods = $rc->getMethods(ReflectionMethod::IS_PUBLIC);

        $controllers = array();
        foreach($methods as $mthd){
                $controllers[] = $mthd->name;
        }

        return $controllers;
}

/**
 * function to show admin tools menu for admins, or nothing otherwise
 */
public function show_admin_tools(){
        handle_maintenance();

        $tablename = $this->get_table();
```

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```
ob_start();
?>

<div class="dropdown pull-right invisible" id="admin-tools-menu-button">
    <button
        type="button"
        data-toggle="dropdown"
        class="btn btn-danger btn-xs"
        title="<?php echo html_attr($this->lang['Admin Information']); ?>"
    >
        <i class="glyphicon glyphicon-option-vertical"></i>
    </button>
    <div class="dropdown-menu" id="admin-tools-menu">
        <h5><b><?php echo $this->lang['Admin Information']; ?></b></h5>
        <div class="alert alert-danger no-owner hidden"><?php echo $this->lang['record has no owner']; ?></div>
        <dl class="dl-horizontal">
            <dt><?php echo $this->lang['owner']; ?></dt>
            <dd>
                <div class="owner-username"></div>
                <a class="change-owner-link" href="#"><i class="glyphicon glyphicon-user"></i> <?php echo $this->lang['Change owner']; ?></a>
                <br>
                <a class="user-records-link" href="" target="_blank"><i class="glyphicon glyphicon-th"></i> <?php echo str_replace('<tablename>', $tablename, $this->lang['show all user records from table']); ?></a>
                <br>
                <a class="user-email-link" href="" target="_blank"><i class="glyphicon glyphicon-envelope"></i> <?php echo $this->lang['email this user']; ?></a>
            </dd>
```


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```
                    <dt><?php echo $this->lang['group']; ?></dt>
                    <dd>
                        <div class="owner-group"></div>
                        <a class="group-records-link" href="" target="_blank"><i class="glyphicon glyphicon-th"></i> <?php echo str_replace('<tablename>', $tablename, $this->lang['show all group records from table']); ?></a>
                        <br>
                        <a class="group-email-link" href="" target="_blank"><i class="glyphicon glyphicon-envelope"></i> <?php echo $this->lang['email this group']; ?></a>
                    </dd>

                    <dt><?php echo $this->lang['created']; ?></dt>
                    <dd class="record-created"></dd>

                    <dt><?php echo $this->lang['last modified']; ?></dt>
                    <dd class="record-last-modified"></dd>
                </dl>
            </div>
        </div>

        <div class="clearfix"></div>

        <style>
            #admin-tools-menu-button{ display: inline-block !important; margin: 0 1em; }
            #admin-tools-menu{ padding: 1em 2em; }
            #admin-tools-menu .dl-horizontal dd, #admin-tools-menu .dl-horizontal dt{ padding: 1em 0; }
        </style>
```

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```
        <?php
        $html = ob_get_contents();
        ob_end_clean();

        return $html;
}

/**
 * function to return the js code for the admin menu
 */
public function get_admin_tools_js(){
        handle_maintenance();

        $record_info = $this->get_record_info();
        if(!$record_info || $record_info == 'null') return;

        @header('Content-type: application/javascript');
        ob_start();
        ?>

        $j(function(){
                var tablename = '<?php echo $this->get_table(); ?>';
                var record_id = '<?php echo addslashes($this->request['id']); ?>';
                var record_info = <?php echo $record_info; ?>;

                $j('#admin-tools-menu-button')
                        .appendTo('.detail_view .panel-title:first')
                        .removeClass('invisible');
```

```
$j(window).resize(function(){
        var dv_width = $j('.detail_view').width();
        var menu_width = Math.min(dv_width * .9, 500);
        $j('#admin-tools-menu').width(menu_width);
}).trigger('resize');

/* change owner link */
$j('#admin-tools-menu .change-owner-link').click(function(){
        mass_change_owner(tablename, [record_id]);
        setTimeout(update_username, 900);
        return false;
});

/* function to update record info after 'change owner' dialog is gone */
var update_username = function(){
        /* wait till any modals disappear */
        if(AppGini.modalOpen()) return setTimeout(update_username, 900);

        $j.ajax({
                url: 'ajax_admin_tools.php',
                data: {
                        table: tablename,
                        id: record_id,
                        action: 'get_record_info'
                },
                success: function(ri){
                        update_record_info(ri);
```

```
                }
            });
        };

        /* function to update record info */
        var update_record_info = function(ri){
            if(ri == undefined) return;
            $j('#admin-tools-menu .no-owner').addClass('hidden');
            $j('#admin-tools-menu .dl-horizontal').removeClass('hidden');

            if(undefined == ri.memberID){
                $j('#admin-tools-menu .no-owner').removeClass('hidden');
                $j('#admin-tools-menu .dl-horizontal').addClass('hidden');
            }

            $j('#admin-tools-menu .owner-username').html(ri.memberID);
            $j('#admin-tools-menu .user-records-link').attr('href',
'admin/pageViewRecords.php?memberID=' + encodeURIComponent(ri.memberID) + '&tableName='
+ encodeURIComponent(tablename));
            $j('#admin-tools-menu .user-email-link').attr('href',
'admin/pageMail.php?memberID=' + encodeURIComponent(ri.memberID));

            $j('#admin-tools-menu .owner-group').html(ri.group);
            $j('#admin-tools-menu .group-records-link').attr('href',
'admin/pageViewRecords.php?groupID=' + encodeURIComponent(ri.groupID) + '&tableName=' +
encodeURIComponent(tablename));
            $j('#admin-tools-menu .group-email-link').attr('href',
'admin/pageMail.php?groupID=' + encodeURIComponent(ri.groupID));

            $j('#admin-tools-menu .record-created').html(ri.dateAdded);
```

```
                $j('#admin-tools-menu .record-last-modified').html(ri.dateUpdated);
            };

            update_record_info(record_info);
        })
        <?php
        $js = ob_get_contents();
        ob_end_clean();

        return $js;
    }

    public function get_record_info(){
        handle_maintenance();
        @header('Content-type: application/json');

        $table = $this->get_table();
        $safe_id = makeSafe($this->request['id']);

        $res = sql("select r.memberID, r.dateAdded, r.dateUpdated, g.groupID, g.name as 'group' from membership_userrecords r left join membership_groups g on r.groupID=g.groupID where r.tableName='{$table}' and r.pkValue='{$safe_id}'", $eo);
        if(!$res) return 'null';
        $rec_info = @db_fetch_assoc($res);

        $admin_config = config('adminConfig');
        $rec_info['dateAdded'] = date($admin_config['PHPDateTimeFormat'], $rec_info['dateAdded']);
        $rec_info['dateUpdated'] = date($admin_config['PHPDateTimeFormat'], $rec_info['dateUpdated']);
```

```
        return @json_encode($rec_info);
}

/**
 * @brief Retrieve and validate name of current table
 * @return table name, or false on error.
 */
protected function get_table(){
        $table_ok = true;

        $table = $this->request['table'];
        if(!$table) $table_ok = false;

        if($table_ok){
                $tables = getTableList();
                if(!array_key_exists($table, $tables)) $table_ok = false;
        }

        if(!$table_ok) return false;

        return $table;
}
```

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5.2.OUTPUT SCREENS:

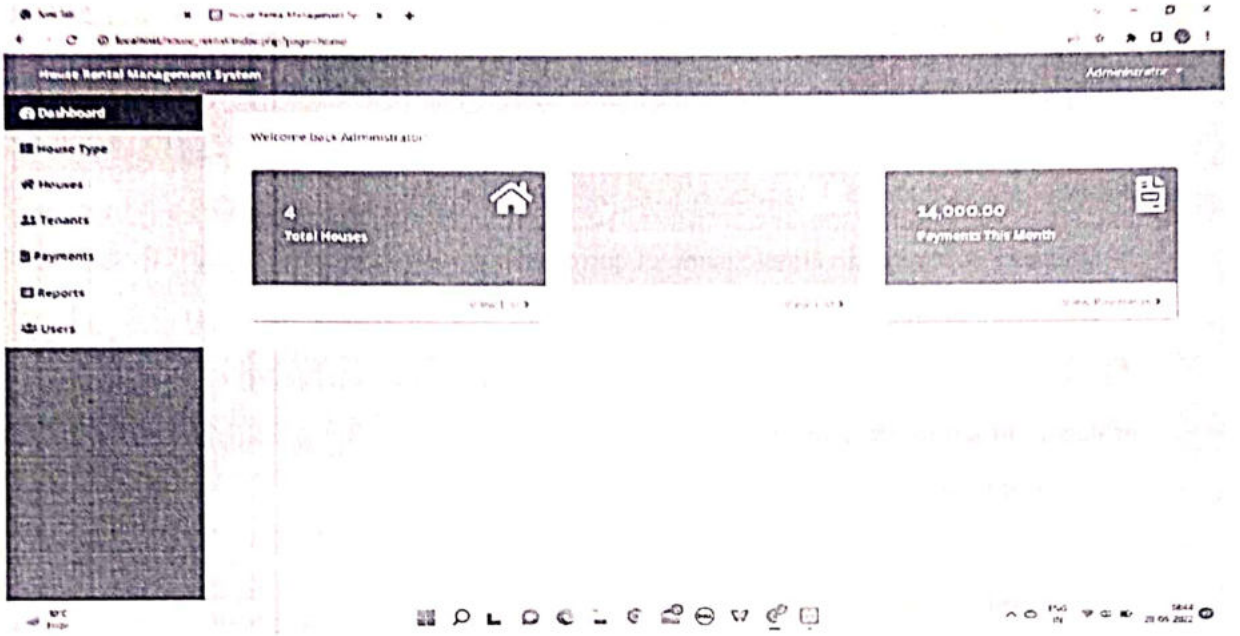

Fig 5.1: It describes **Houses module** , which contain different types of houses.

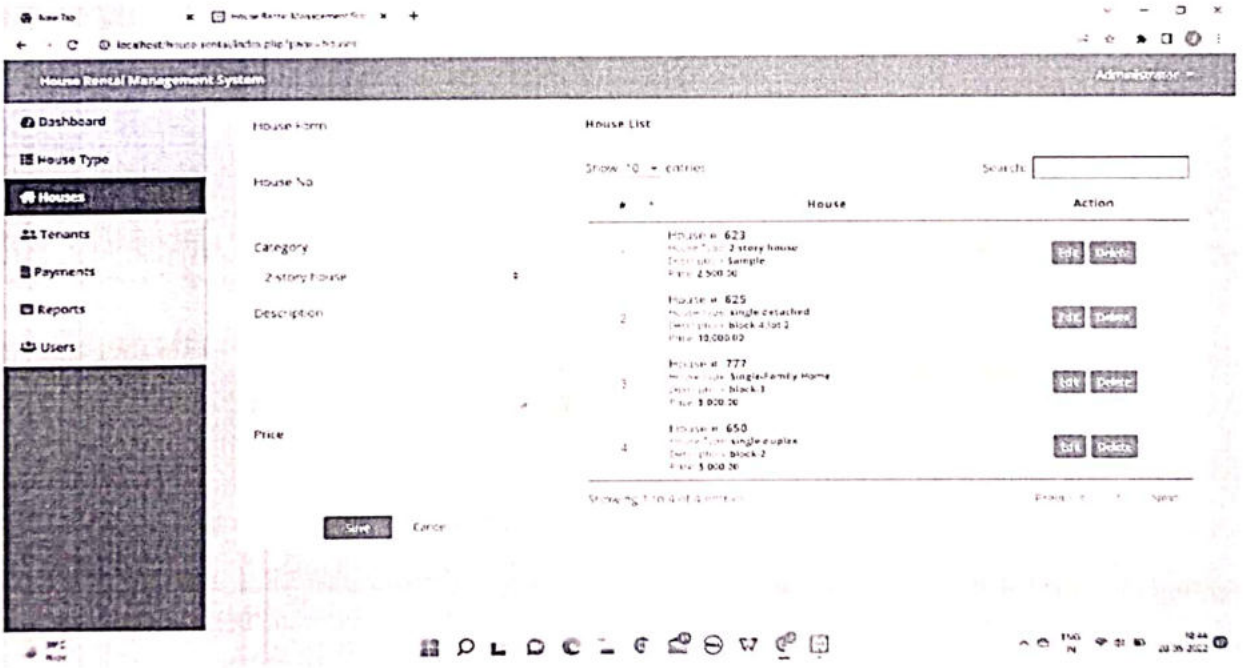

Fig5.2: It describes the Tenants module.

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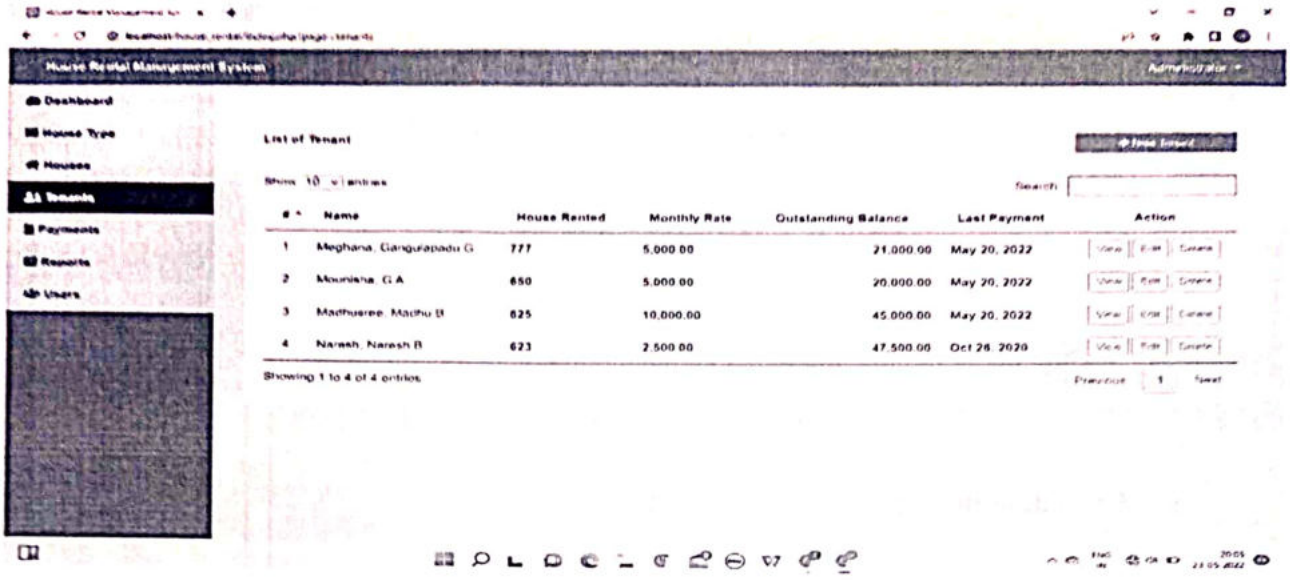

Fig5.3: It describes the tenanats module

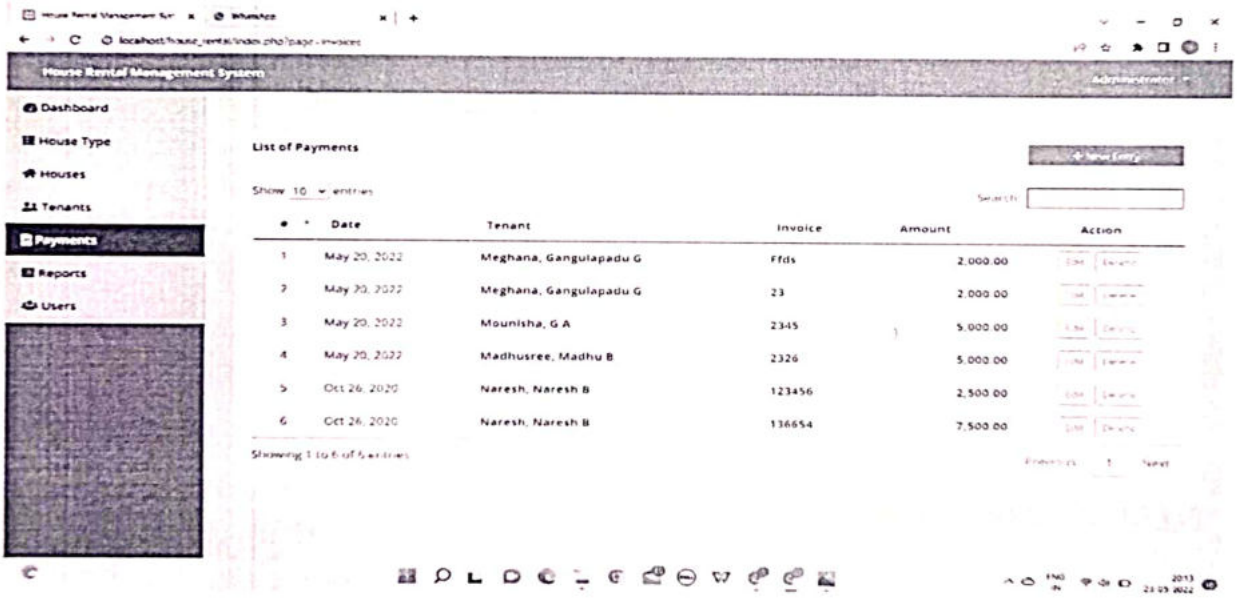

Fig 5.4: it describes the payment module

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Fig 5.5: it describes the information about the payments

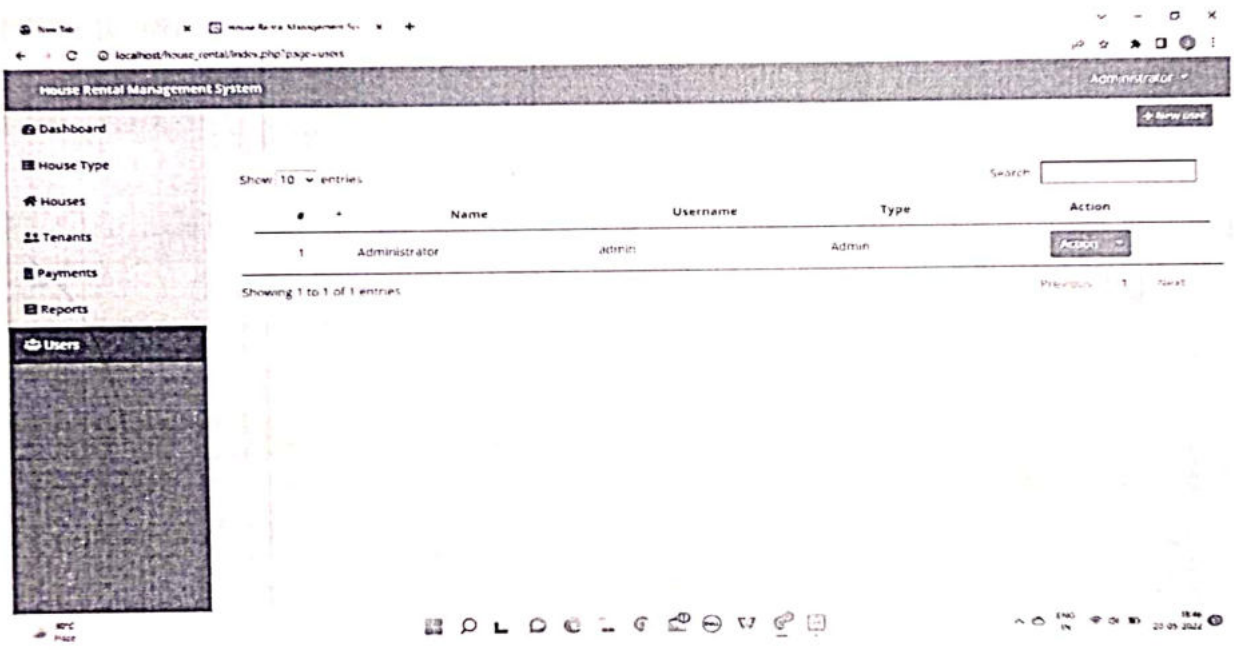

Fig 5.6: it describes the user details

Fig 5.7: it describes the monthly reports module

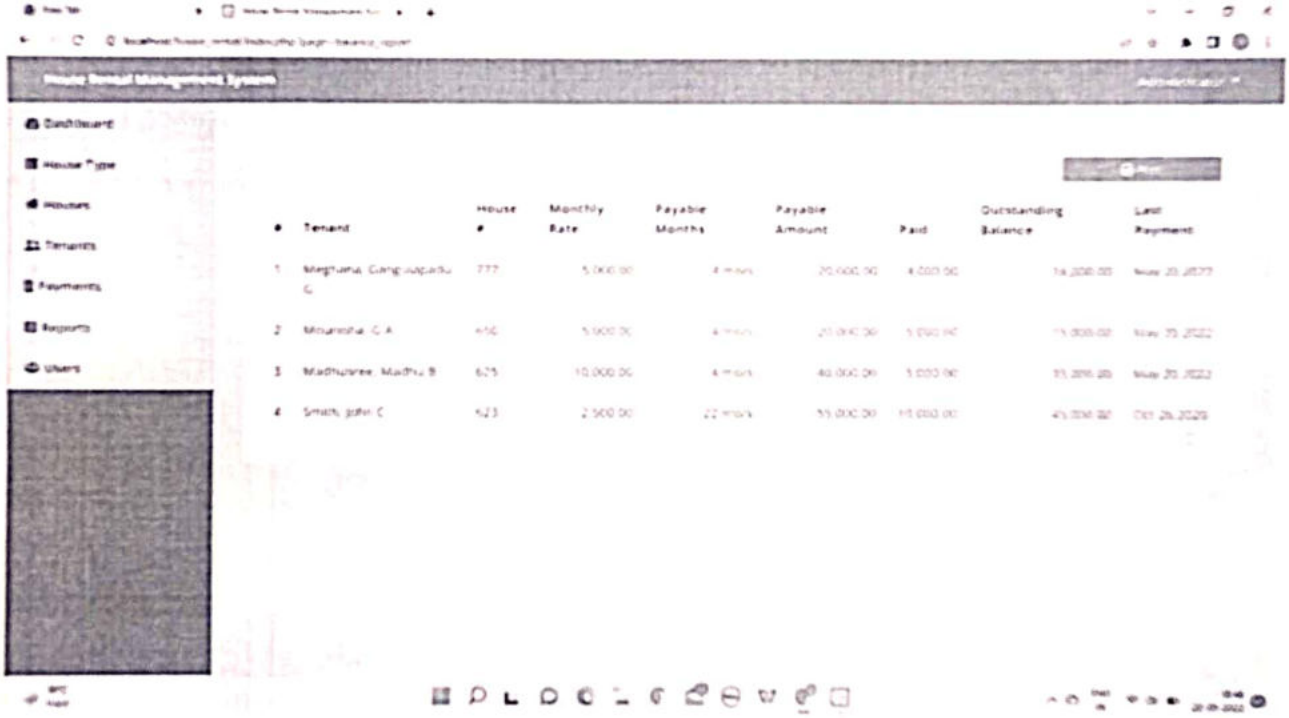

Fig 5.8: it describes the information about the payments

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CHAPTER-6
CONCLUSION & FURTURE ENHANCEMENTS

6.1 CONCLUSION :

- Effectively resolving the apartment issues is important to the buyer's long term future.
- The Rental House Management System will be an important tool for creating rental housing stability by helping tenants speak with greater creadibility through initiating and documenting communications and building productive relationships with sellers.
- Finally, the goal of the project is to create a better relationship between tenants and a sellers which can be achieved through this project.

6.2 FUTURE ENHANCEMENT :

- In future , our project is meant to satisfy the needs of rental house owners.
- This package shall prove to be a powerful in satisfying all requirements of the users.
- In extend we can add GPS system in build and can give live chat online options to users.
- In future, this system might help both users and owners to reduce man power in search of houses that are available.

CHAPTER-7

BIBLIOGRAPHY

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[3] Yael Adini, Yael Moses, and Shimon Ullman, "Face Recognition: The Problem of Compensating for Changes in Illumination Direction"

[4] Kanan C, Cottrell GW (2012) Color-to-Grayscale: Does the Method Matter in Image Recognition? https://doi.org/10.1371/journal.pone.0029740

SRP - IV

SMART FARMING USING IOT

A Socially Relevant Project Report submitted to

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY-ANANTAPUR

In partial fulfilment of the requirements for the award of the degree of

BACHELOR OF TECHNOLOGY

In

Computer Science and Engineering

by

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19AK1A05F5 – S. SADIK

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Venkatapuram(V), Karakambadi(P), Renigunta(M), Tirupati – 517520, AP

(2019 – 2023)

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATION

Certified that this is a bonafide record of the socially relevant project report entitled **"SMART FARMING USING IOT"**, done by **T.RAJITHA REDDY, REG NO: 19AK1A05D3, S.SADIK, REG NO: 19AK1A05F5, A.SNEHA, REG NO: 19AK1A05G2, K.YOSITHA, REG NO: 19AK1A05J2, K.PRAVEEN KUMAR, REG NO: 19AK1A05E3** submitted to the Department of Computer Science and Engineering, in partial fulfilment of the requirements for the degree of **BACHELOR OF TECHNOLOGY in Computer Science and Engineering** from Jawaharlal Nehru Technological University-A, Anantapur during the year 2019 – 2023.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

Date: _____

Place: Tirupati

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DECLARATION

We hereby declare that the project titled **SMART FARMING** is a genuine socially relevant project work carried out by us, in **B. Tech (Computer Science and Engineering)** degree course of **Jawaharlal Nehru Technological University-A, Anantapur** and has not been submitted to any course or university for the award of our degree.

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ACKNOWLEDGEMENT

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We are thankful to our guide **Mr. N. VENKAT RAMANA, Assistant Professor, Computer Science and Engineering** for his sustained inspiring guidance and cooperation throughout the process of this project. His wise counsel and suggestions were invaluable.

We express our deep sense of gratitude and thanks to all the **Teaching and Non - Teaching Staff** of our college who stood with us during the project and helped us to make it a successful venture.

We place highest regards to our **Parents, Friends and Well-wishers** who helped a lot in making the report of this project.

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CONTENTS

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LIST OF FIGURES

HEAD
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ABSTARCT

As per the FAO statistics of world agriculture in 2010, India is the world's largest producer of many fresh fruits. In 2013, India was the seventh largest agriculture exporter, exporting $39 BN worth of agricultural goods. All this data shows how big the agricultural industry in India is. To provide smart farming techniques to Indian farmers to accurately monitor essential factors of crop growth, this project is developed.

The device measures three of the most important and basic parameters for growth of plants namely soil moisture, temperature and humidity. The microcontroller is Arduino Uno. The Soil Moisture Sensor measures soil moisture grace to the changes in electrical conductivity of the earth (soil resistance increases with drought). The sensors read the data and send it to the microcontroller board. The board then processes and maps the data as per the code.

The advantage of using this system to reduce human intervention and sufficient supply is given without wasting water. The project uses an 8051 series micro controller which is programmed to receive input signal of varying moisture conditioning of the soil through sensing arrangement. This is achieved by using an opamp as comparator which acts as interface between the sensing arrangement and the microcontroller. When the microcontroller receives the signal it gives an output that drives a relay for operating the Water pump and to run the water pump for certain amount of time. A input is given in the form of time which is linked directly to the timer section of microcontroller.

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1.INTRODUCTION

By using the concept of modern irrigation system a farmer can save water up to 50%. This concept depends on two irrigation methods those are: conventional irrigation methods like overhead sprinklers, flood type feeding systems i.e., wet the lower leaves and stem of the plants. The area between the crop rows become dry as the large amount of water is consumed by the flood type methods, in which case the farmer depends only on the incidental rainfalls. The crops are been infected by the leaf mold fungi as the soil surface often stays wet and is saturated after irrigation is completed.

Overcoming these drawbacks new techniques are been adopted in the irrigation techniques, through which small amounts of water applies to the parts of root zone of a plant. The plant soil moisture stress is prevented by providing required amount of water resources frequently or often daily by which the moisture condition of the soil will retain well. The diagram below shows the entire concept of the modern irrigation system. The traditional techniques like sprinkler or surface irrigation requires / uses nearly half of water sources. Even more precise amounts of water can be supplied for plants. As far as the foliage is dry the plant damage due to disease and insects will be reduced, which further reduces the operating cost.

The dry rows between plants will leads to continuous federations during the irrigation process. Fertilizers can be applied through this type of system, and the cost required for will also reduces. The erosion of soil and wind is much reduced by the recent techniques when compared with overhead sprinkler systems. The soil characteristics will define the form of the dripping nature in the root zone of a plant which receives moisture. As the method of dripping will reduce huge water losses it became a popular method by reducing the labor cost and increasing the yields. When the components are activated, all the components will read and gives the output signal to the controller, and the information will be displayed to the user (farmer). The sensor readings are analog in nature so the ADC pin in the controller will convert the analog signals into digital format. Then the controller will access information and when the motors are turned on/Off it will be displayed on the LCD Panel.

2. IDEA OF THE PROJECT

There is an urgent need for a system that makes the agricultural process easier and burden free from the farmer"s side. With the recent advancement of technology it has become necessary to increase the annual crop production output entirely agro-centric economy.

The ability to conserve the natural resources as well as giving a splendid boost to the production of the crops is one of the main aims of incorporating such technology into the agricultural domain of the country.

To save farmers effort, water and time. Irrigation management is a complex decision making process to determine when and how much water to apply to a growing crop to meet specific management objectives.

If the farmer is far from the agricultural land he will not be noticed of current conditions. So, efficient water management plays an important role in the Irrigated agricultural cropping systems.

3. PROBLEM STATEMENT

Irrigtion of plants is usually a very time- consuming activity, to be done in a reasonable amount of time, it requires a large amount of human resources. Traditional all the steps were executed by humans. Nowadays some systems use technology to reduce the number or workers or the time required to water the plants. With such systems, the control is very limited, and many resources are still wasted.

Water is one of these resources that are used excessively. Many irrigation is one method used to water the plant. This method represents massive losses since the amount of water given is in excess of the plant's needs. The excess water is evacuated by the holes of the pots in greenhouses, or it percolates through the soil in the fields.

The contemporary perception of water is that of a free renewable resource that can be used in abundance. It is therefore reasonable to assume that it will soon become a very expensive resource everywhere.

In addition to the excess cost of waterm labour is becoming more and more expensive. As a result, if no effort is invested in optimising these resources, there will be more money involved in the same process. Technology is probably a solution to reduce costs and prevent loss of resource, this project can be a strong way to tackle such a situation.

4.SCOPE OF THE PROJECT

Day by day, the field of electronics is blooming and have caused great impact on human beings. The project which is to be implemented is an automated irrigation method and has a huge scope for future development. The project can be extended to greenhouses where manual supervision is far and few in between. The principle can be extended to create fully automated gardens and farmlands. Combined with the principle of rain water harvesting, it could lead to huge water savings if applied in the right manner. In agricultural lands with severe shortage of rainfall, this model can be successfully applied to achieve great results with most types of soil.

By developing a Smart Wireless Sensor and by using upcoming techniques a farmer can increase his profit by solving different problems that are faced by the farmer in his routine life. And also to involve Arduino – Controller with a video capturing by using an MMS facility about the crop position and at the same time sending video to the farmer.

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5. ANALYSIS

5.1 HARDWARE REQURIMENTS

5.1.1. Temperature Sensor (LM35):

The temperature sensor used to measure the temperature at the field is LM35. The LM35 series are precision integrated-circuit temperature sensors, whose output voltage is linearly proportional to the Celsius (Centigrade).The LM35 does not require any external calibration or trimming to provide typical accuracies of degree C at room temperature and degree Cover a full -55 to +150C temperature range. Low cost is assured by trimming and calibration at the water level. The LM35"s low output impedance, linear output, and precise inherent calibration make interfacing to readout or control circuitry especially easy. The device is used with single power supplies, or with plus and minus supplies. As the LM35 device draws only 60 μA from the supply, it has very low self-heating of less than 0.1°C in still air.

Features

1. Calibrated Directly in Celsius (Centigrade)
2. Linear + 10-mV/°C Scale Factor
3. 0.5°C Ensured Accuracy (at 25°C)
4. Rated for Full −55°C to 150°C Range
5. Suitable for Remote Applications
6. Low-Cost Due to Wafer-Level Trimming
7. Operates from 4 V to 30 V
8. Less than 60-μA Current Drain
9. Low Self-Heating, 0.08°C in Still Air
10. Non-Linearity Only ±¼°C Typical

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FIG 5.1.1 TEMPERATURE SENSOR

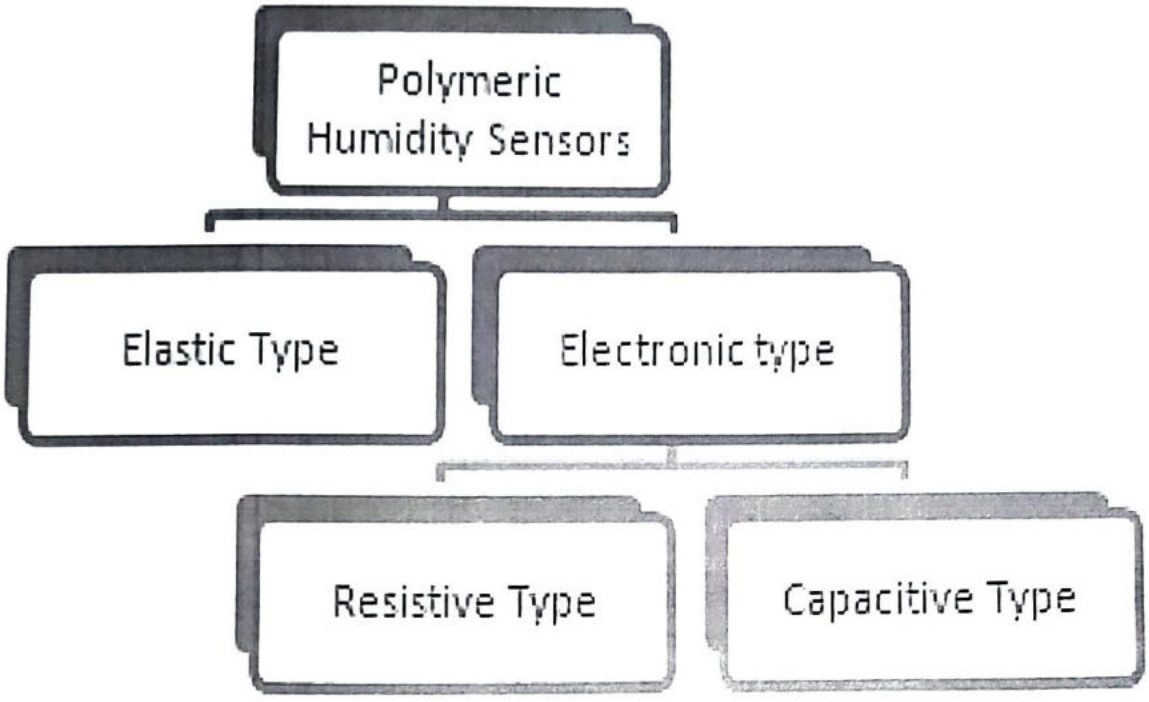
	LM35	LM135	LM135A	LM235	LM335
Local Sensor Accuracy (Max) (+/- C)	0.5	3	1	3	6
Operating Temperature Range (C)	-40 to 110 -55 to 150 0 to 100 0 to 70	-55 to 150	-55 to 150	-40 to 125	-40 to 100
Supply Voltage (Min) (V)	4	5	5	5	5
Supply Voltage (Max) (V)	30				
Supply Current (Max) (uA)	114	400	400	400	400
Sensor Gain (mV/Deg C)	10	10	10	10	10
Rating	Military	Military	Military	Military	Military
Shutdown	No	No	No	No	No
Output Impedance (Ohm)	0.4	0.5	0.5	0.5	0.6
Interface	Analog Output	Analog Output	Analog Output	Analog Output	Analog Output

5.1.2. Humidity Sensor (DHT11) :

A Humidity sensor also called a hygrometer, measures and regularly reports the relative humidity in the air. A humidity sensor senses relative humidity. This means that it measures both air temperature and moisture. Relative humidity, expressed as a percent, is the ratio of actual moisture in the air to the highest amount of moisture air at that temperature can hold. The warmer the air is, the more moisture it can hold, so relative humidity changes with fluctuations in temperature. The most common type of humidity sensor uses what is called "capacitive measurement.

This system relies on electrical capacitance, or the ability of two nearby electrical conductors to create an electrical field between them. The sensor itself is composed of two metal plates with a non-conductive polymer film between them. The film collects moisture

from the air, and the Moisture causes minute changes in the voltage between the two plates. The changes in voltage are converted into digital readings showing the amount of moisture in the air.



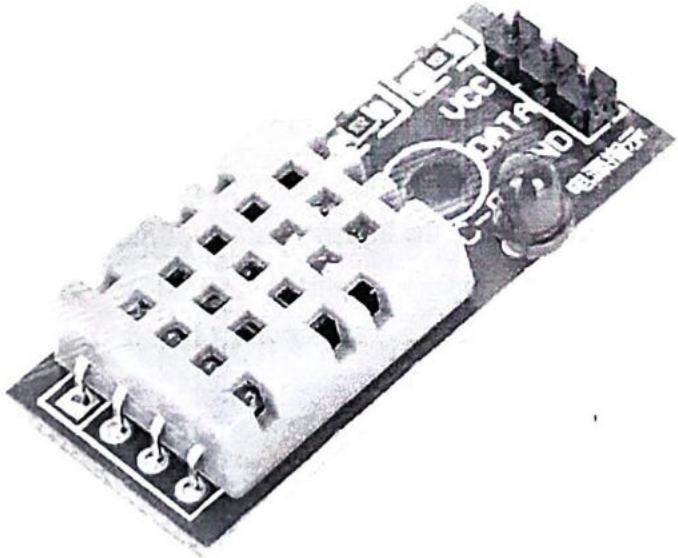


Fig. DHT11 Sensor

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5.1.3. Soil Moisture Sensor:

Although soil water status can be determined by direct (soil sampling) and indirect (soil moisture sensing) methods, direct methods of monitoring soil moisture are not commonly used for irrigation scheduling because they are intrusive and labor intensive and cannot provide immediate feedback. Soil moisture probes can be permanently installed at representative points in an agricultural field to provide repeated moisture readings over time that can be used for irrigation management. Special care is needed when using soil moisture devices in coarse soils since most devices require close contact with the soil matrix that is sometimes difficult to achieve in these soil.

Soil moisture is an important component in the atmospheric water cycle, both on a small agricultural scale and in large-scale modelling of land/atmosphere interaction. Vegetation and crops always depend more on the moisture available at root level than on precipitation occurrence. Water budgeting for irrigation planning, as well as the actual scheduling of irrigation action, requires local soil moisture information. Knowledge of the degree of soil wetness helps to forecast the risk of flash floods, or the occurrence of fog. Soil water content is an expression of the mass or volume of water in the soil, while the soil water potential is an expression of the soil water energy status. The relation between content and potential is not universal and depends on the characteristics of the local soil, such as soil density and soil texture.

Measuring soil moisture is very important in agriculture to help farmer for managing the irrigation system. Soil moisture sensor is one who solves this. This sensor measures the content of water. Soil moisture sensor uses the capacitance to measure the water content of soil. It is easy to use this sensor. Simply insert this rugged sensor into the soil to be tested, and the volumetric water content of the soil is reported in percent. Soil moisture sensors measure the volumetric water content in soil.

The basic technique for measuring soil water content is the gravimetric method. Because this method is based on direct measurements, it is the standard with which all other methods are compared. Unfortunately, gravimetric sampling is destructive, rendering repeat measurements on the same soil sample impossible. Because of the difficulties of accurately

measuring dry soil and water volumes, volumetric water contents are not usually determined directly

Since the direct gravimetric measurement of free soil moisture requires removing, drying, and weighting of a sample, soil moisture sensors measure the volumetric water content indirectly by using some other property of the soil, such as electrical resistance, dielectric constant, or interaction with neutrons, as a proxy for the moisture content. The relation between the measured property and soil moisture must be calibrated and may vary depending on environmental factors such as soil type, temperature, or electric conductivity. Reflected microwave radiation is affected by the soil moisture and is used for remote sensing inhydrology and agriculture. Portable probe instruments can be used by farmers or gardeners.

Soil moisture sensors typically refer to sensors that estimate volumetric water content. Another class of sensors measure another property of moisture in soils called water potential; these sensors are usually referred to as soil water potential sensors and include tensiometers and gypsum blocks

FIG 5.1.3 SOIL MOSITURE SENSOR

5.1.4. Arudino Micro-Controller:

Arduino is an open-source prototyping platform based on easy-to-use hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online. We can tell your board what to do by sending a set of instructions to the microcontroller on the board. To do so we use the Arduino programming language (based on wiring), and the Arduino Software(IDE), based on Processing.

The Arduino Uno can be powered via the USB connection or with an external power supply. The power source is selected automatically. External (non-USB) power can come either from an AC-to-DC adapter (wall-wart) or battery. The adapter can be connected by plugging a 2.1mm center-positive plug into the board's power jack. Leads from a battery can be inserted in the Gnd and Vin pin headers of the POWER connector. The board can operate on an external supply of 6 to 20 volts. If supplied with less than 7V, however, the 5V pin may supply less than five volts and the board may be unstable. If using more than 12V, the voltage regulator may overheat and damage the board. The recommended range is 7 to 12 volts.

FEATURE	SPECIFICATION
Microcontroller	ATmega328
Operating Voltage	5V
Input Voltage (recommended)	7-12V
Input Voltage (limits)	6-20V
Digital I/O Pins	14 (of which 6 provide PWM output)
Analog Input Pins	6
DC Current per I/O Pin	40 mA
DC Current for 3.3V Pin	50 mA
Flash Memory	32 KB (ATmega328) of which 0.5 KB used by boot loader
SRAM	2 KB (ATmega328)
EEPROM	1 KB (ATmega328)
Clock Speed	16 MHz

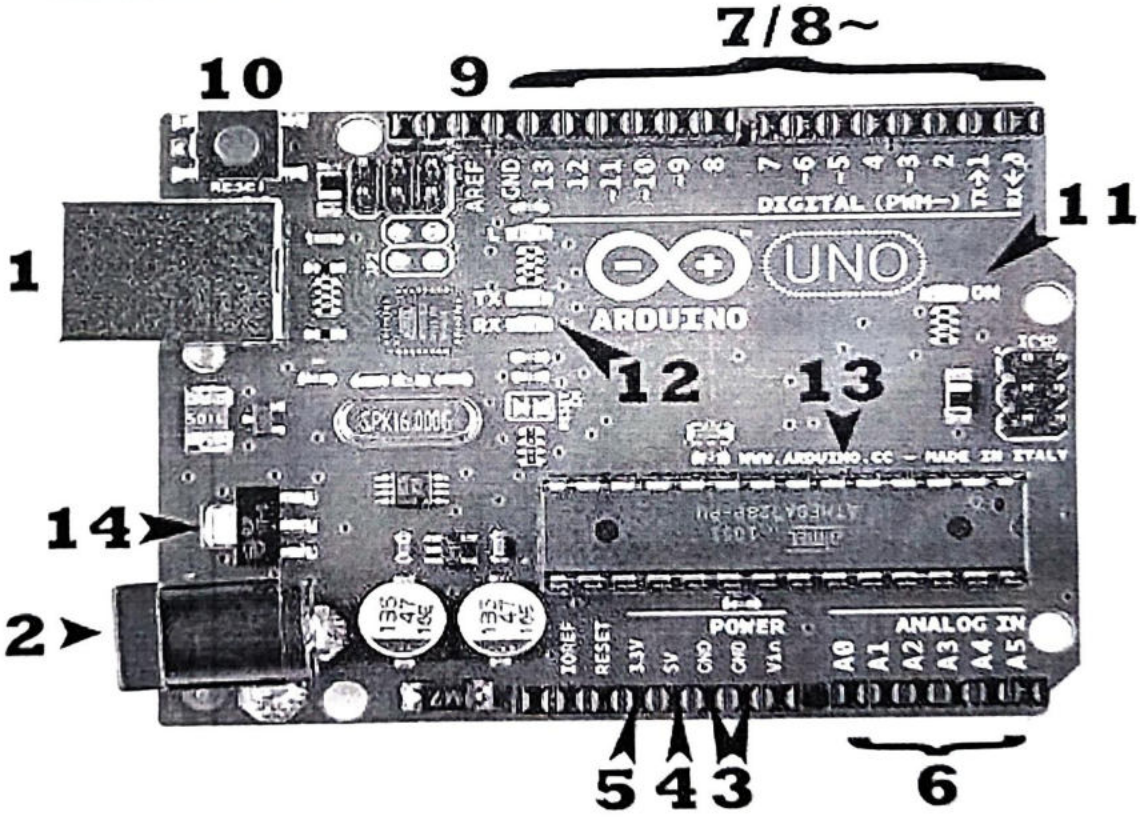

Fig 5.1.4 Ardunio

i. What Does it Do?

The Arduino hardware and software was designed for artists, designers, hobbyists, hackers, newbies, and anyone interested in creating interactive objects or environments. Arduino can interact with buttons, LEDs, motors, speakers, GPS units, cameras, the internet, and even your smart-phone or your TV! This flexibility combined with the fact that the Arduino software is free, the hardware boards are pretty cheap, and both the software and hardware are easy to learn has led to a large community of users who have contributed code and released instructions for a huge variety of Arduino-based projects.

ii. What's on the board?

There are many varieties of Arduino boards (explained on the next page) that can be used for different purposes. Some boards look a bit different from the one below, but most Arduinos have the majority of these components in common

iii. Power (USB / Barrel Jack)

Every Arduino board needs a way to be connected to a power source. The Arduino UNO can be powered from a USB cable coming from your computer or a wall power supply (like this) that is terminated in a barrel jack. In the picture above the USB connection is labeled (1) and the barrel jack is labelled (2). The USB connection is also how you will load code onto your Arduino board.

iv.Pins (5V, 3.3V, GND, Analog, Digital, PWM, AREF)

The pins on your Arduino are the places where you connect wires to construct a circuit (probably in conjuction with a breadboard and some wire. They usually have black plastic „headers" that allow you to just plug a wire right into the board. The Arduino has several different kinds of pins, each of which is labeled on the board and used for different functions. GND (3): Short for „Ground". There are several GND pins on the Arduino, any of which can be used to ground your circuit

v. Reset Button

Just like the original Nintendo, the Arduino has a reset button (10). Pushing it will temporarily connect the reset pin to ground and restart any code that is loaded on the Arduino. This can be very useful if your code doesn"t repeat, but you want to test it multiple times.

Unlike the original Nintendo however, blowing on the Arduino doesn"t usually fix any problems.

vi. Main IC

The black thing with all the metal legs is an IC, or Integrated Circuit (13). Think of it as the brains of our Arduino. The main IC on the Arduino is slightly different from board type to board type, but is usually from the A Tmega line of IC"s from the ATMEL company. This can be important, as you may need to know the IC type (along with your board type) before loading up a new program from the Arduino software. This information can usually be found in writing on the top side of the IC. If you want to know more about the difference between various IC"s, reading the datasheets is often a good idea.

vii. Voltage Regulator

The voltage regulator (14) is not actually something you can (or should) interact with on the Arduino. But it is potentially useful to know that it is there and what it"s for. The voltage regulator does exactly what it says – it controls the amount of voltage that is let into the Arduino board. Think of it as a kind of gatekeeper; it will turn away an extra voltage that might harm the circuit. Of course, it has its limits, so don"t hook up your Arduino to anything greater than 20 volts.

viii. The Arduino Family

Arduino makes several different boards, each with different capabilities. In addition, part of being open source hardware means that others can modify and produce derivatives of Arduino boards that provide even more form factors and functionality.

5.1.5 Water Pump :

The water pump is used to artificially supply water for a particular task. It can be electronically controlled by interfacing it to a microcontroller. It can be triggered ON/OFF by sending signals as required. The process of artificially supplying water is known as pumping. There are many varieties of water pumps used. This project employs the use of a small water pump which is connected to a H-Bridge.

The pumping of water is a basic and practical technique, far more practical than scooping it up with one's hands or lifting it in a hand-held bucket. This is true whether the water is drawn from a fresh source, moved to a needed location, purified, or used for irrigation, washing, or sewage treatment, or for evacuating water from an undesirable location. Regardless of the outcome, the energy required to pump water is an extremely demanding component of water consumption. All other processes depend or benefit either from water descending from a higher elevation or some pressurized plumbing system.

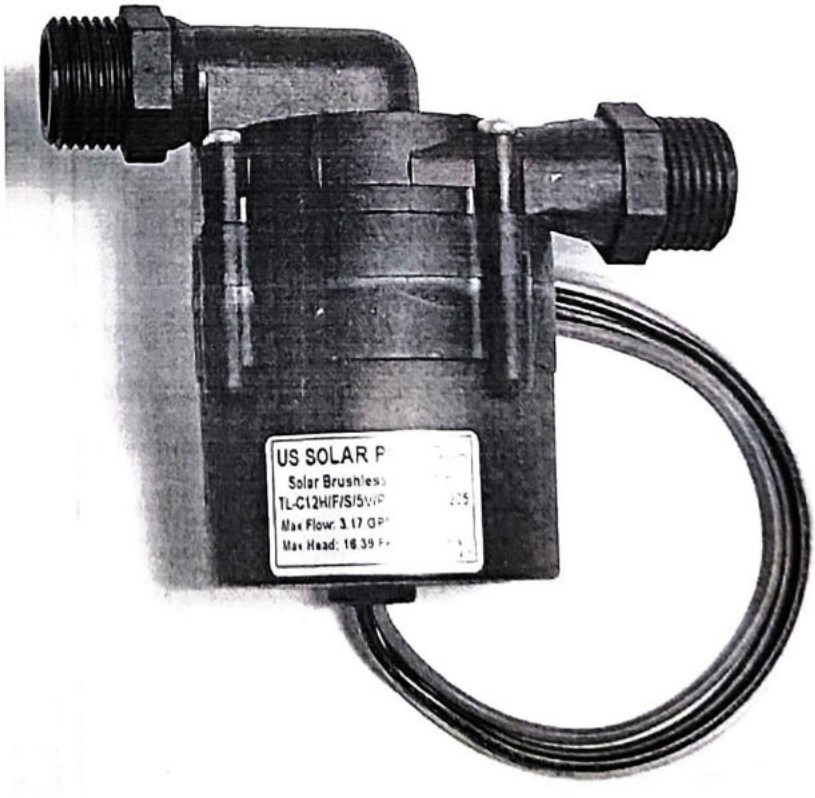

FIG 5.1.5. Water Pump

5.1.6. Motor Driver :

Because of very low current requirement, these motors can easily operate with small batteries and solar panels. Quiet and smooth operation of this motor makes it a perfect choice for indoor and long hours of operation.

Direction of rotation: Counter-Clockwise when viewing from the output shaft end with positive voltage applied to positive terminal.

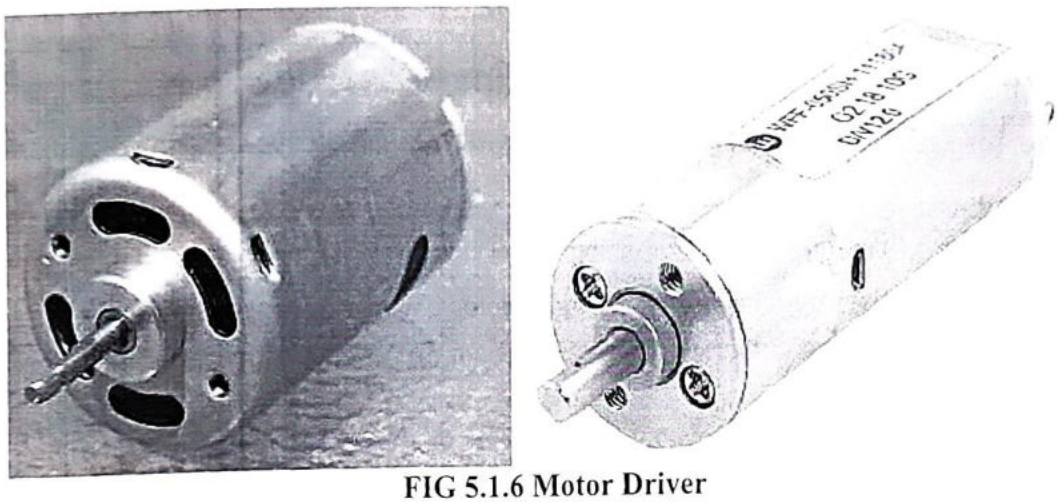

FIG 5.1.6 Motor Driver

Specifications:

Operating range: 3.0 - 12.0

Volts Nominal Voltage: 12 No

Load Speed: 5600 rpm

No Load Current: 0.022 A

Max. Efficiency Speed: 4906 rpm

Max. Efficiency Current: 0.16 -0.23

A Max. Efficiency Torque: 21.1 g.cm

Stall Torque: 170 g.cm

Stall Current: 1.1 - 1.5 A

Body Diameter: 24.4 mm

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5.2 SOFTWARE REQURIMENTS

5.2.1.Arduino Software (IDE) :

The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. It runs on Windows, Mac OS X, and Linux. The environment is written in Java and based on Processing and other open-source software. This software can be used with any Arduino board. For latest software refer to link.

https://www.arduino.cc/en/Main/Software

- Arduino was born at the Ivrea Interaction Design Institute as an easy tool for fast prototyping, aimed at students with or without a background in electronics and programming.
- Arduino is an open-source prototyping platform based on easy-to-use hardware and software.
- Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a message - and turn it into an output - activating a motor, turning on an LED, publishing something online and many more.
- You can tell your board what to do by sending a set of instructions to the microcontroller on the board.
- To do so you use the Arduino programming language (based on Wiring), and the Arduino Software (IDE), based on Processing.
    - **Inexpensive** - Arduino boards are relatively inexpensive compared to other microcontroller platforms.
    - **Cross-platform** - The Arduino Software (IDE) runs on Windows, Macintosh OSX, and Linux operating systems. Most microcontroller systems are limited to Windows.
    - **Simple, clear programming environment** - The Arduino Software (IDE) is easy-to-use for beginners, yet flexible enough for advanced users to take advantage of as well.
    - **Open source and extensible hardware** - The plans of the Arduino boards are published under a Creative Commons license, so experienced circuit designers can make their own version of the module, extending it and improving it.

❖ **Open source and extensible software** - The Arduino software is published as open source tool and the language can be expanded through C++ libraries.

5.2.2. How to use Arduino IDE Tool Steps for using Arduino IDE

Step 1: Get an Arduino board and USB cable:

In this tutorial, we assume you're using an Arduino Uno You also need a standard USB cable (A plug to B plug): the kind you would connect to a USB printer, for example.

Step 2 : Download the Arduino environment:

(https://www.arduino.cc/en/Main/Software) Get the latest version from the download page. When the download finishes, unzip the downloaded file. Make sure to preserve the folder structure. Double-click the folder to open it. There should be a few files and sub-folders inside.

Step 3 : Connect the board

The Arduino Uno, Mega, Duemilanove and Arduino Nano automatically draw power from either the USB connection to the computer or an external power supply. If you're using an Arduino Diecimila, you'll need to make sure that the board is configured to draw power from the USB connection. The power source is selected with a jumper, a small piece of plastic that fits onto two of the three pins between the USB and power jacks. Check that it's on the two pins closest to the USB port. Connect the Arduino board to your computer using the USB cable. The green power LED (labelled PWR) should go on.

Step 4 : Install the drivers

Installing drivers for the Arduino Uno or Arduino Mega 2560 with Windows7, Vista, or XP.

Step 5: Launch the Arduino application

Double-click the Arduino application. (Note: if the Arduino software loads in the wrong language, you can change it in the preferences dialog. See the environment page for details

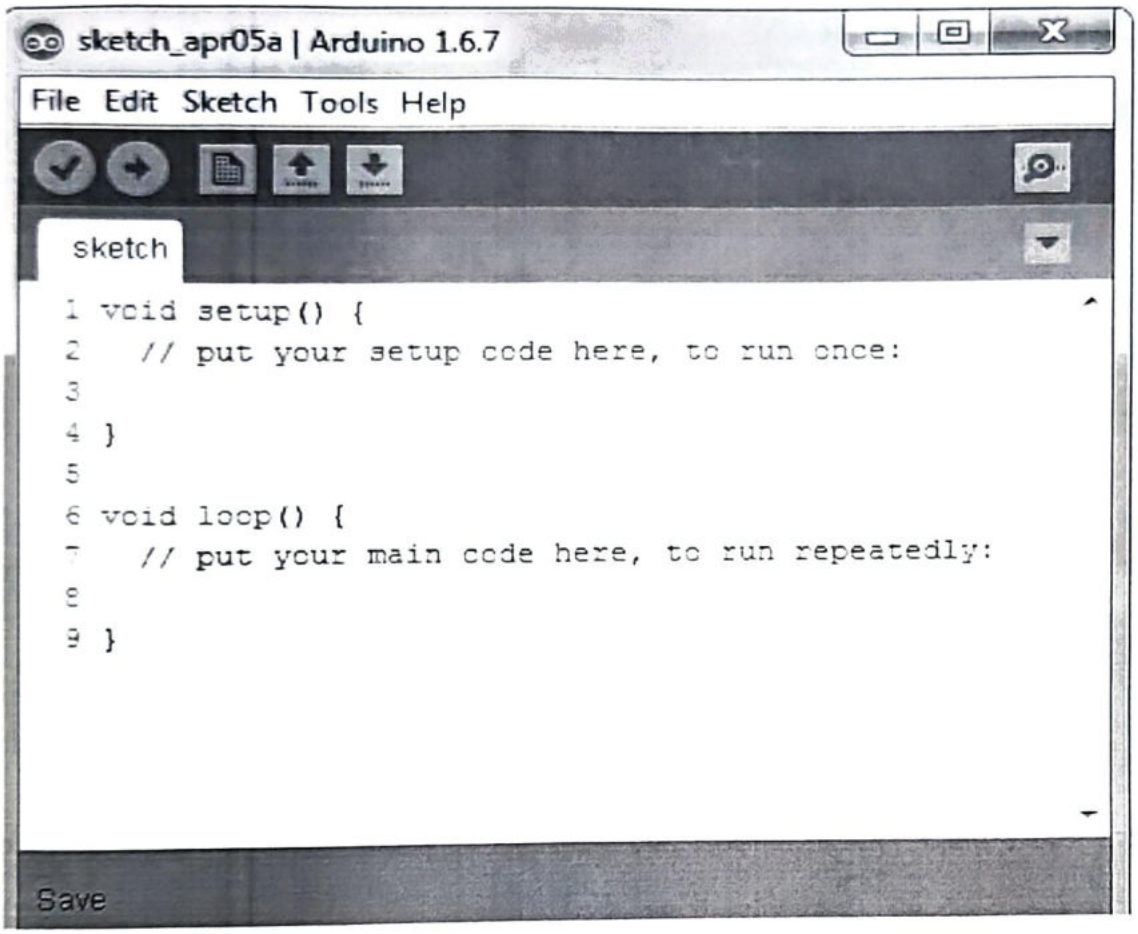

FIG 5.2.2

Step 7: Select your board

You'll need to select the entry in the Tools > Board menu that corresponds to your Arduino.

Step 8: Select your serial port

Select the serial device of the Arduino board from the Tools | Serial Port menu. This is likely to be COM3 or higher (COM1and COM2 are usually reserved for hardware serial ports). To find out, you can disconnect your Arduino board and re-open the menu; the entry that disappears should be the Arduino board. Reconnect the board and select that serial port.

Step 9 : Upload the program

Now, simply click the "Upload" button in the environment. Wait a few seconds - you should see the RX and TX leds on the board flashing.

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5.3 BLOCK DIAGRAM

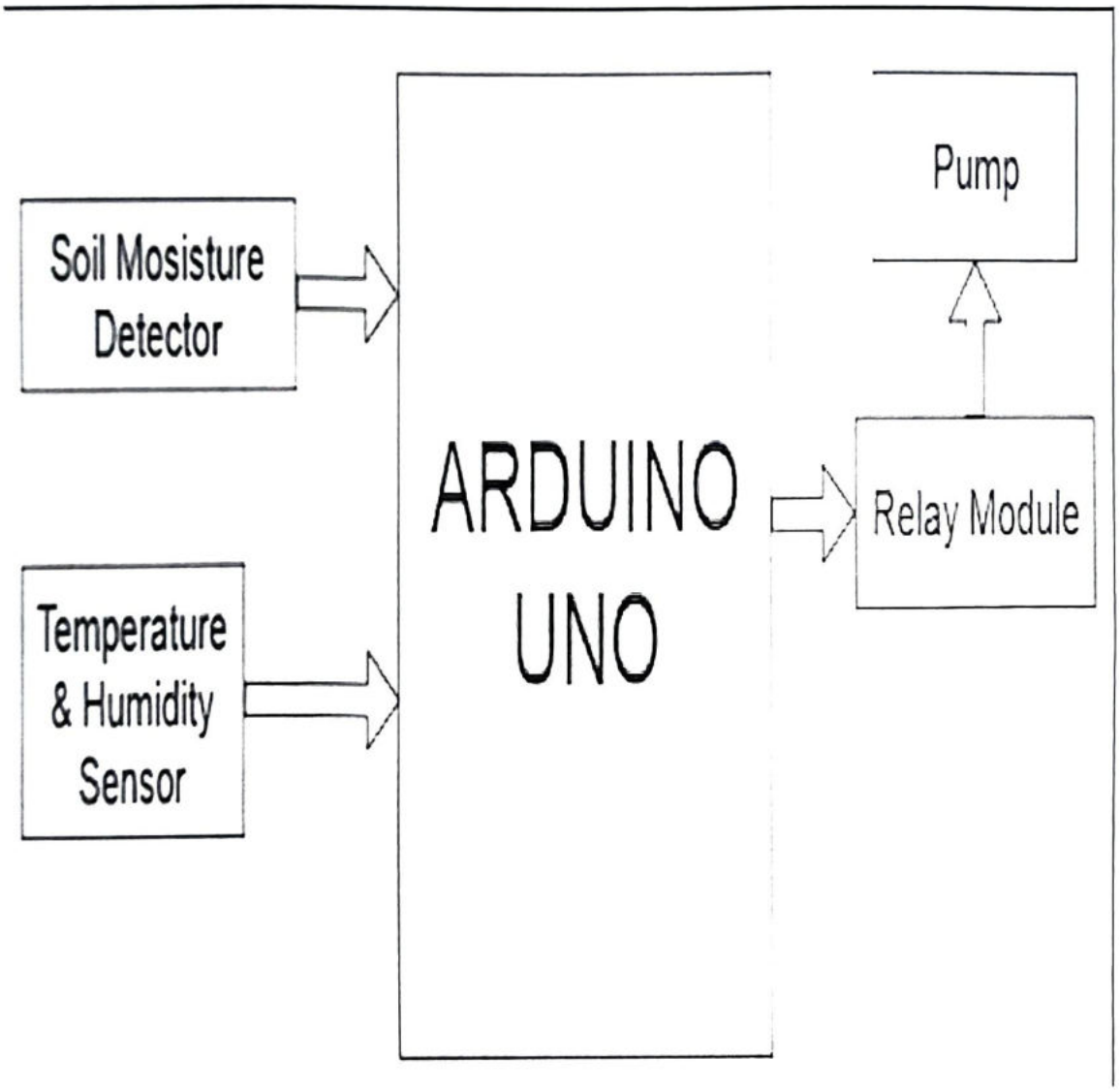

FIG 5.3

Above is the manner in which we are going to implement the circuit. The first part of the block diagram are different sensors and the second part is an LCD Panel and motors for supplying water. The major hardware modules which are needed: Arduino processor, motor, different sensors.

RESULTS

6.1 OUTPUT SCREENS

6.1.1 Components Connection

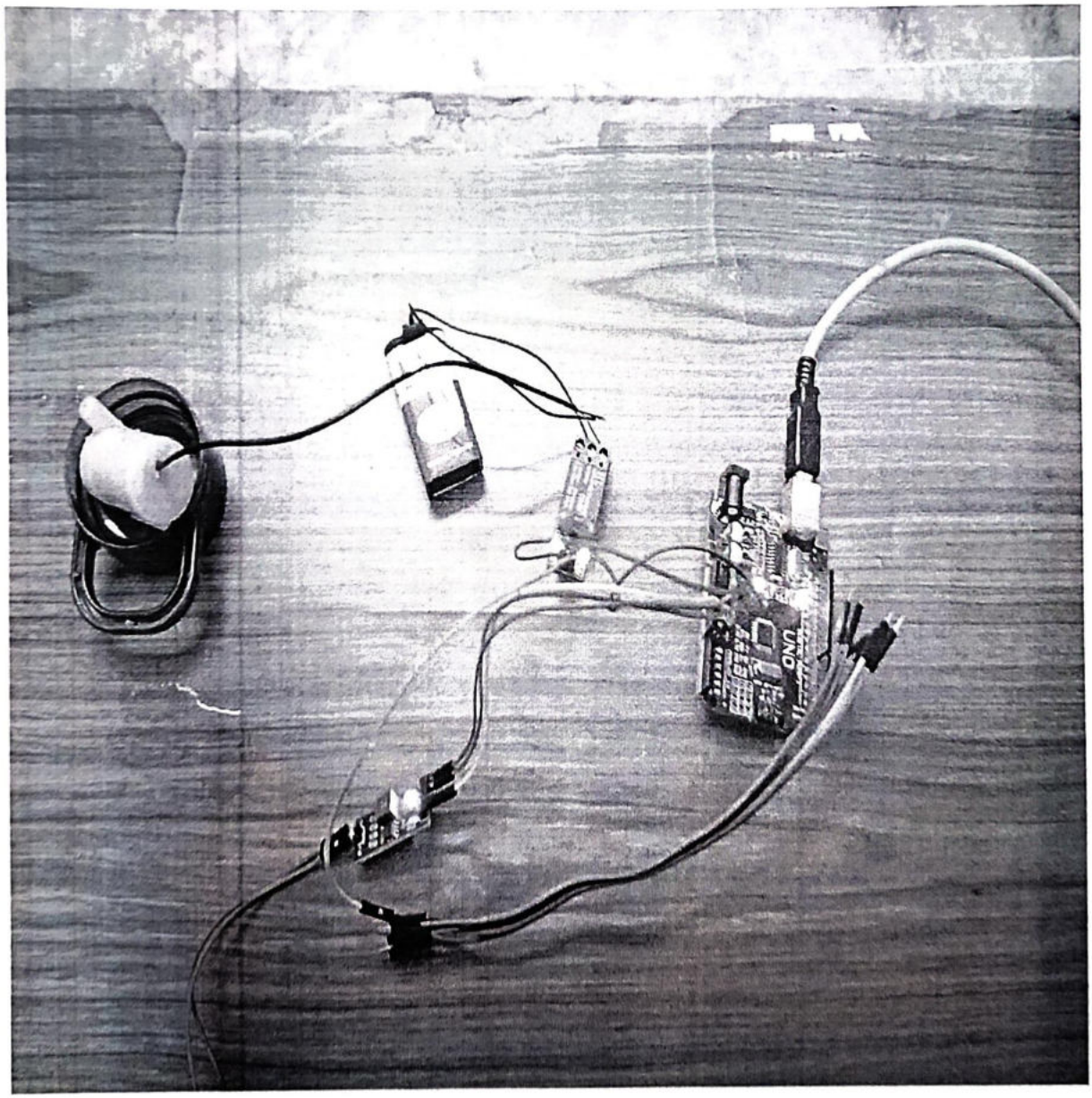

FIG 6.1.1

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6.1.2 Soil Moisture Sensor

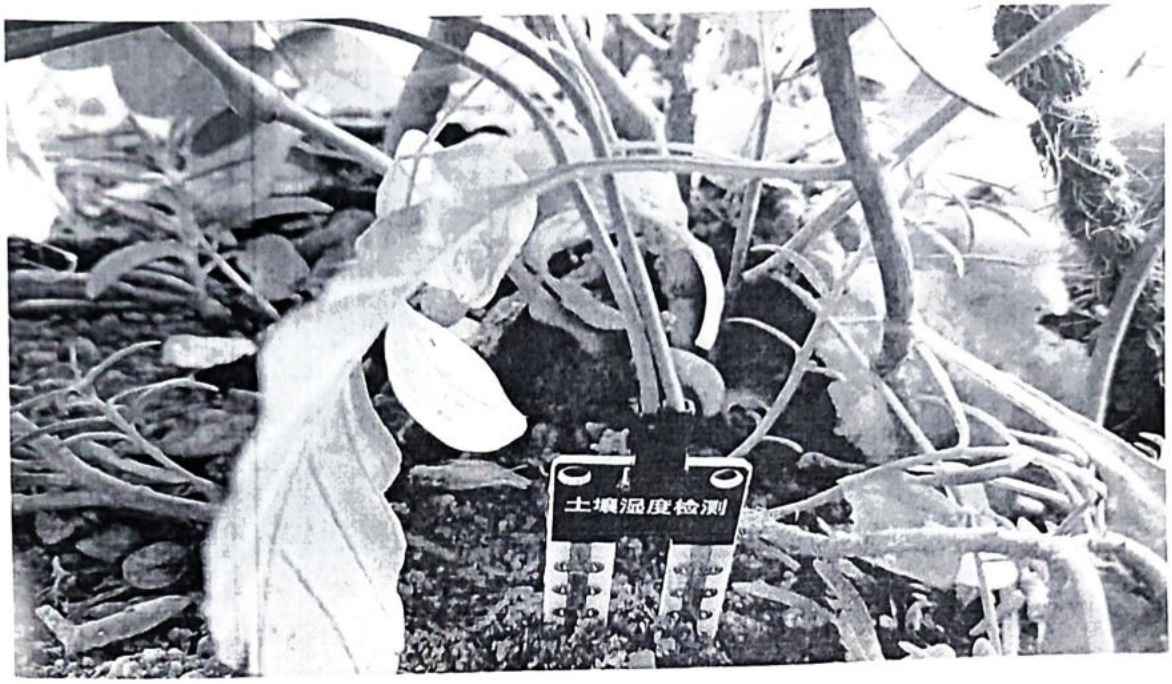

FIG 6.1.2

6.1.3 Overall Project Setup

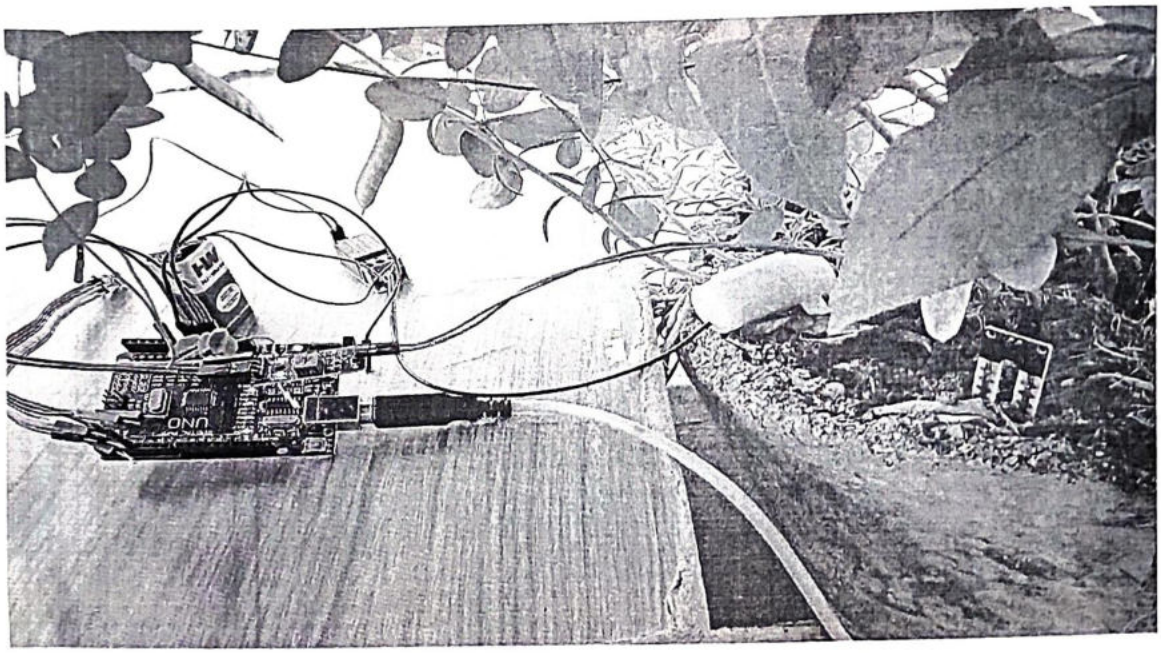

FIG 6.1.3

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6.2 SOURCE CODE

```
//Smart Irrigation System

int sensor_pin= A0;
int output_value;

void setup(){
 pinMode(3, OUTPUT);
 Serial.begin(9600);
 Serial.println("Reading from the Moisture sensor…");
 delay(2000);
}

void loop()
{
 output_value= analogRead (sensor_pin);
 output_value= map (output_value,550,10,0,100);
 Serial.print("Moisture:");
 Serial.print(output_value);
 Serial.println("%");
```

```
if (output_value<0)
{
 delay(1000);
 digitalWrite(3, HIGH);
}

else
{
 delay(1000);
 digitalWrite (3,LOW);
}

delay (1000);
}
```

7.CONCLUSION AND FUTURE ENHANCEMENTS

7.1 CONCLUSION

The primary applications for this project are for farmers and gardeners who do not have enough time to water their crops/plants. It also covers those farmers who are wasteful of water during irrigation. As water supplies become scarce and polluted, there is a need to irrigate more efficiently in order to minimize water use and chemical leaching. Recent advances in soil water sensing make the commercial use of this technology possible to automate irrigation management for vegetable production. However, research indicates that different sensors types perform under all conditions with no negative impact on crop yields with reductions in water use range as high as 70% compared to traditional practices.

7.2 FUTURE ENHANCEMENT

The proposed system consist of less hardware as compared to the previous model hence it is compact as compared to the previous system. It is more cost efficient, this claim is made on the fact that the proposed system does not need the heavy and expensive hardware for implementation. This type of automated irrigation system consumes 40-50% less water as compared to the traditional system Ideal growth condition is been provided when small amount of water is been applied over large amount of time. This smart irrigation system extends watering time for plants, and provides ideal growth condition. It saves time and timer delay as per the environmental condition can be added for automatic watering. This smart irrigation system can be adjusted and modified according to the changing environment. It is simple to operate it starts by designing the map of your garden and marking the location of planting.

7.3 REFERENCE

- ✓ http://web.science.mq.edu.au/
- ✓ http://en.wikipedia.org/wiki/
- ✓ http://www.journals.elsevier.com/
- ✓ http://pages.cs.wisc.edu/
- ✓ http://cs.stanford.edu/projects/
- ✓ http://www.Drip Irrigation Images.com

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1.3.4 - CSE FILE 2

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Date: 06 JUNE 2022

INTERNSHIP COMPLETION CERTIFICATE

This is to certify that Mr. J. Jaswanth Kumar studying B.Tech CSE bearing the Reg.no: 19AK5A0502 from ANNAMACHARYA INSTITUTE OF TECHNOLOGY AND SCIENCES TIRUPATI has been accepted to do his project entitled "CRYPTANALYSIS OF AN ANONYMOUS AND TRACEABLE GROUP DATA SHARING IN CLOUD COMPUTING" from **25 April 2022 to 04 June 2022** as part of their academic project curriculum in our Organization.

During this period, he worked on the various areas of projects development/Support and successfully met the objectives that were set at the beginning of the Internship. We found him extremely inquisitive and hardworking. He was very much interested to learn the functions of our core division and also willing to put his best efforts and get into the depth of the subject to understand better.

We wish him all the best in all his future endeavors.

For YoungMinds Technology Solutions Private Limited.

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Authorized Signatory
Human Resource Manager

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Balaji Colony, TIRUPATI - 517 501, Andhra Pradesh, INDIA

Call @ 0877-2261612 | 9966062884
hr@ymtsindia.com
www.ymtsindia.com

18AK1A0586

Zypew Solution

Phone : +91-9629829290
Mail ID : info@zypew.com
Website : www.zypew.com

11/06/2022

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. K. NAVEENA** (Reg. No: 18AK1A0586) who is currently pursuing final year **B.Tech CSE** in **Annamacharya Institute of Technology & Sciences** was employed with us as 'Software Engineer – Intern' from April 2022 to June 2022.

Mr. S. SETHURAMAN
HR Manager
Zypew Solution.

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

No.101A, Palani Andavar Koil Street, Kosapalayam, Arni, Thiruvannamalai Dist – 632301, TamilNadu, India.

YLR INFOTECH PRIVATE LIMITED

10-14-582, Above HDFC Bank, Beside CMR Shopping Mall V. V Mahal Road
Tirupati - 517501, Chittoor Dist., A.P., India.
Mobile: +91 88856 56699, e-mail: ylrinfotech@gmail.com, info@ylrinfotech.com
Website: https//ylrinfotech.com

Date: 05-06-2022

INTERNSHIP CERTIFICATE

This is to certify that **Miss. P. NANDHINI** bearing **Roll no.: 18AK1A0584**, a student of **ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES (AUTONOMOUS)** has completed on internship in **PYTHON** from **30 - April - 2022 to 05 - June - 2022.**

P. NANDHINI has worked as a full stack Python developer. This internship involved many Python concepts which was successfully completed by P. NANDHINI. She is well versed in PYHTON, DJANGO FRAME WORK.

We found her to be highly sincere, hardworking, result-oriented & innovative during her tenure with us. We wish her all the best in all her future endeavours.

Your Sincerely.

YASESHWINI .
YLR Info tech.

For YLR INFOTECH PRIVATE LIMITED
Director

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

ICLOUDINTEL

Date: 29-06-2022

INTERNSHIP COMPLETION CERTIFICATE

This is to certify that **V JAYAKANTH** studying B.Tech, CSE bearing the **Reg. No. 18AK1A0551** from Annamacharya Institute of Technology and Sciences, Tirupati has been accepted to do his project entitled **'CLOUD BASED DATA ANALYTICS ON BANKING'** as part of their academic project curriculum in our Organization.

During the period **02-05-2022 to 29-06-2022**, he worked on the various areas of projects development,Support and Successfully met the objectives that were set at the beginning of the Internship. We found him extremely inquisitive and hardworking. He was very much interested to learn the functions of our core division and also willing to put his best efforts and get into the depth of the subject to understand better.

We wish him all the best in all his future endeavors.

For iCloudintel Software Services Pvt. Ltd.

For ICLOUDINTEL SOFTWARE SERVICES PVT LTD

DIRECTOR

Authorized Signatory

Director

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Branch office:
103,2nd floor, Bodugu Plaza,
Near Leela Mahal, Tirumala bypass Road,
Tirupati - 517501

contact: +919886661196
email: reo@icloudintel.com
www.icloudintel.com

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THIS IS TO CERTIFY THAT

Dillipriya P

has successfully completed 30 DAYS MACHINE LEARNING MASTERCLASS
Organized by ANDHRAPRADESH STATE SKILL DEVELOPEMENT CORPORATION
in Association with PANTECH E LEARNING PVT LTD, CHENNAI

DATE: 27/06/2022

M.Malayappan	Dr.Ravi Gujjala	Prof.Rama Koti Reddy	N.Bangara Raju
Director	Chief General Manager (Technical)	Executive Director	Managing Director
Pantech e Learning	APSSDC	APSSDC	APSSDC

Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

Epnosys Technologies Pvt Ltd

www.epnosys.com

Student Internship Programme 2022

This is to certify that Mr Kasula Yeshwanth has completed his/her internship programme with EPNOSYS Technologies Pvt. Ltd, Head Quartered in Bangalore, dated from 25 April 2022 to 04 June 2022

As part of this internship programme, he/she has worked on Mobile App Development using Flutter/Dart/Firebase on the following project:

Project Title: "Reform"

His/Her Performance and conduct during internship programme has been professional and satisfactory.

On behalf of Epnosys Technologies Pvt Ltd. We wish him/her all the best for his/her future endeavors

Human Resources

Head of the Institution

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-2

#95, Gana Nakshathra, 1st Floor Vinayaka Layout, 10th Cross Beside Domino's Pizza Road, Battarahalli, Bangalore – 560049, India.
Phone: +91 7483946332

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June 03, 2022

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. P. Venkat Varma, student of B.Tech. Computer Science and Engineering, Annamacharya Institute of Technology & Sciences, Tirupati was with us in Information Technology for Internship from April 25, 2022 to June 03, 2022 as a part of the academic curriculum.

During this period, we observed the student to be hardworking, sincere, well managed and dedicated in all the assignments.

We wish him very best for the future endeavors.

Yours truly,
For L&T Energy-Power

Ritesh Thakkar
AGM – Human Resources

HEAD
Dept. of Computer Science & Engg
Annamacharya Institute of
Technology & Sciences, Tirupati-5

INTERNSHIP COMPLETION LETTER

This is to certify that **Mr. T. Vamsi Krishna Prasad** Studying B.Tech (CSE) bearing the **Roll No:18AK1A05E7** from **"Annamacharya Institute of Technology and Sciences"**, has successfully completed his project on **"PLACEMENT MANAGEMENT SYSTEM USING ANDROID"**. The project will be done using **Android** during the **period** from **April 2022 to May 2022** under the guidance and supervision of our developers from **Harsha Informatics, Tirupati.**

During this period, he worked on the various areas of project development/support and successfully met the objectives that were set at the beginning of the internship. We found his extremely inquisitive and hardworking. He was very much interested to learn the functions of our core division and also willing to put his best efforts and get into depth of the subject to understand it better.

We wish him all the best in all his future endeavours.

Authorized Signature

HEAD
Dept. of Computer Science & Engg.
Annamacharya Institute of
Technology & Sciences, Tirupati-5