



**GOVERNMENT COLLEGE FOR WOMEN (A),
GUNTUR**

Field Trips

2021-2022

Govt. College for Women (A), Guntur

IQAC-AQAR-NAAC

Criterion 2: Student Centric Methods (2.3.1)

1. Field trip

1. Dept. of English

1 Field Trips – 10th January 2022, A field trip to Vijayawada Book Exhibition



Introduction
The field trip was an essential part of the educational experience of the students. It was planned by the English department and was held on 10th January 2022. The main purpose of this field trip was to provide the students with a practical experience of the book exhibition in Vijayawada, Andhra Pradesh.

Objectives
The objectives of the field trip were to provide the students with a practical experience of the book exhibition in Vijayawada, Andhra Pradesh. The students were expected to observe the various types of books available in the exhibition and to discuss the same with their teachers and friends.

Team report
The field trip was a very successful one. The students were able to observe the various types of books available in the exhibition and to discuss the same with their teachers and friends. The trip was a very enriching experience for the students.

2. Dept. of Botany

1 Visited ANGARU (Faculty and II and III year B.Sc. students are participated) on 3rd and 8th December 2021



3. Dept. of Chemistry

1	Preparation and sale of organic soap on 1-9-2021	
2	Awareness programme on "Cervical cancer" on 21-10-2021	
3	Student seminars on Food adulteration on 22-10-2021	

<p>4 Quiz on 30- 10 – 2021 by Bhajarang foundation</p>	
<p>5 Essay writing on “ pollution and its control” on 07-12-2021</p>	 <p>Guntur, Andhra Pradesh, India 7CWV+JQQ, Sambelra Rd, Guntur, Andhra Pradesh 522001, India Lat: 16.296132° Long: 80.446166° 07/12/21 04:10 PM</p>
<p>6 1)Visited Agricultural University,Bapatla on 14-12-2021 (To have awareness about the soil analysis)-Faculty and III year B.Sc. students are visited.</p>	 <p>Bapatla, Andhra Pradesh, India W6F+60N, Vaidikbhavanam, Bapatla, Andhra Pradesh 522017, India Lat: 15.96239° Long: 80.78027° 14/12/21 03:18 PM</p> 

7	<p>2) Visited Hindu college to learn about the spectroscopic instruments on 18/12/2021 (Faculty and M.Sc. Chemistry students are participated)</p>	
8	<p>Guest Lecture on Nanochemistry on 28-12-2021 (From 11.00 a.m. to 01.00 p.m.) for M.Sc. Chemistry (III semester students) Speaker: Dr. RajeshkannaGaddam</p>	
9	<p>4)Work shop on food adulteration In Association with AGMARK Laboratory Guntur</p>	



4. Dept. of Economics

1 Field trip
(Faculty, III B.A. and M.A.
Economics students are
visited) on 17/12/2021



5. Dept. of History and Tourism

1 Visited Kondapalli Fort and
Undavalli caves
On 15/12/2021
(Faculty and 1st and 2nd
year TTM students
participated)



2	Field Trips	 <p> Atmakavali, Andhra Pradesh, India 5F6Q+P2L Atmakavali, Andhra Pradesh Pradesh 522001, India Lat 16.494981° Long 80.481512° 16/01/22 02:18 PM </p> <p> Guntur, Andhra Pradesh, India 8WV+J66y, Kista Nagar (Mahavallabhim village), 522014, India Lat 16.86361° Long 80.42214° 16/01/22 01:03 PM </p>
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3		 <p> Guntur, Andhra Pradesh, India 7CWV+JQQ, Sambasiva Pet, Guntur, Andhra Pradesh 522001, India Lat 16.296081° Long 80.444238° 28/01/22 11:40 AM </p>
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6. Dept. of Urdu

1	Language Tour (Faculty and II Semester U.G. students)	
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7. Dept. of Microbiology

1	field trip to Acharya NG Ranga Agricultural Research Station on 18-09-21	
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8. Dept. of Sanskrit

1	Field trip to Kondapalli and Bapu museum at Vijayawada (Faculty and II B.A., B.Com., B.Sc. students)	
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9. Dept. of Zoology

1	Field visit to LAM LIVESTOCK RESEARCH STATION on 18/12/2021 (Faculty and B.Sc. and M.Sc. zoology students)	
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10. Dept. of Sociology

1 Field Trip(NGO)



11. Dept. PHYSICS and ELECTRONICS

1 FIELD TRIP



12. Dept. of Economics

1 Field Trip





**GOVERNMENT COLLEGE FOR WOMEN (A),
GUNTUR**

STUDY PROJECTS

2021-2022



Govt. College for Women
(AUTONOMOUS) - GUNTUR. 1942 (Estd.)
College with Potential for Excellence

Board of Studies

2021-2022

Department of Zoology

Report on the Study Projects

Study Projects, as part of their curriculum and examination, were done by the students V Semester students during the year 2021-22 on the following topics:

Diabetes

1. Animal Biotechnology
2. Blood Cancer
3. Kidney
4. Lungs
5. HIV
6. DNA Finger Printing
7. IVF Treatment
8. Gene Therapy
9. Lung Cancer

Objective of Study Projects:


The students did Study Projects on the topics mentioned above as a part and an extension of their curriculum. The study revealed many aspects connected to the human anatomy, diseases and infections pertaining to genetic, food and living habits and several therapies related to diseases.

Methodology adopted:

The students took support of the digital apps, online websites, books, and mentor's guidance while pursuing Study Projects. They researched several blogs and surveyed public in the process of studying the Project.

Learning outcome:

The Students became aware of the general functioning of the human system and understood the reasons and causes of its malfunction.


PRINCIPAL
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR.

GOVT. COLLEGE FOR WOMEN (A)

SAMBASIVAPET, GUNTUR-522001



DEPARTMENT OF ZOOLOGY

PROJECT REPORT

Redg.No: 19409037

Certified that this is a bonafide record of project report submitted by Shaik. Shaheen. Govt. College for Women (A), Guntur, as a part of V Semester Practical Examination during the year 2021-2022.

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Lecturer in-charge 8/2/2022

N. Aravind
Internal Examiner

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Assistant Professor in Zoology
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GUNTUR

Government College for women(A), Guntur

Study Project on Diabetes

Name: Shaik Shaheen

Rollno: 19409037

Subject: Zoology

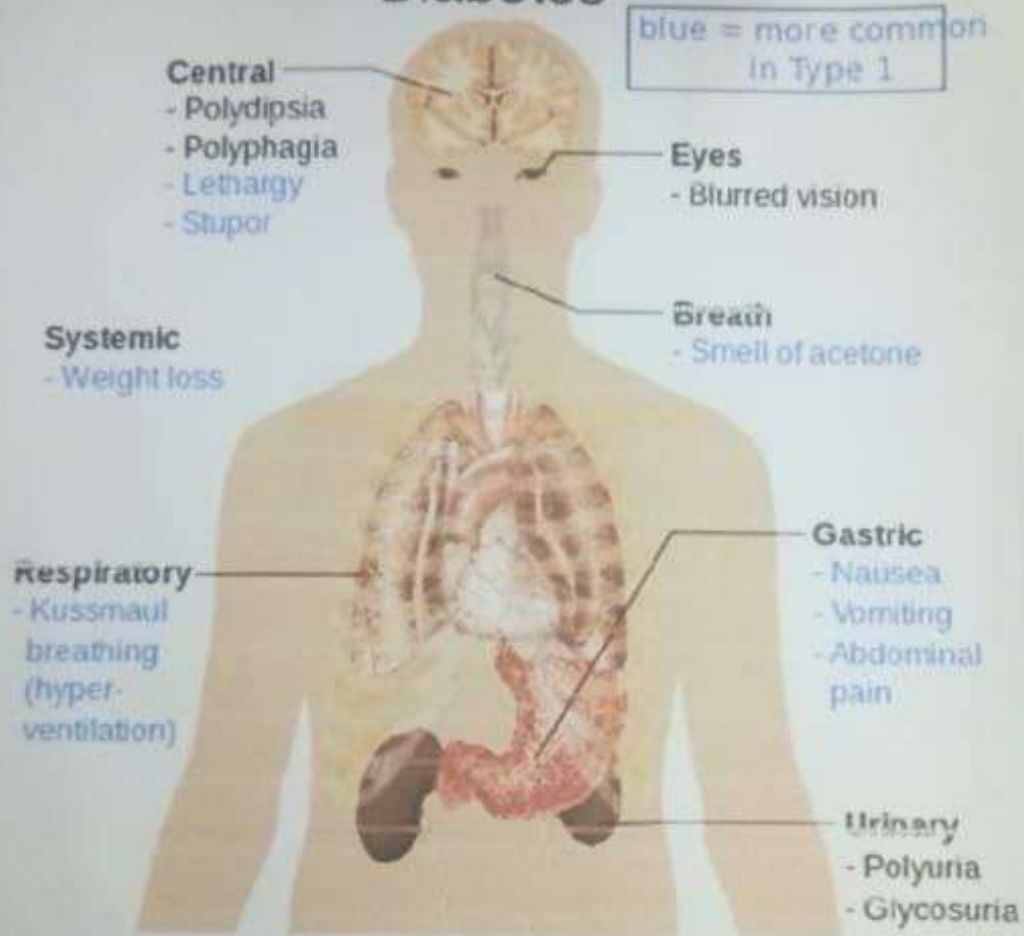
Group & year: 3rd BSc, BZC (E.H).

Submitted to:

Smt An

Main Symptoms & General symptoms of

Main symptoms of Diabetes



I Diabetes.

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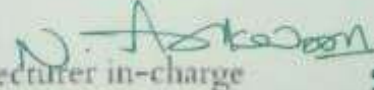


DEPARTMENT OF ZOOLOGY

PROJECT REPORT

Redg.No: 19409018 ; 19409023

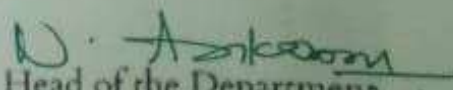
Certified that this is a bonafide record of project report submitted by Blessy Tyathina, Prasanna Supriya Govt. College for Women (A), Guntur, as a part of V Semester Practical Examination during the year 2021-2022.


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Head of the Department

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ANIMAL BIOTECHNOLOGY

A Project Report On

Fauna Of Gcw, Guntur Campus



CRANE



Scientific Name : Gruidae

Phylum : Chordata

Class : Aves

Order : Gruiformes

Family : Gruidae

Cranes are a family, the Gruidae, of large, long-legged, and long-necked birds in the group Gruiformes. The 15 species of cranes are placed in three genera, Antigone, Balearica, and Grus.

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SAMBASIVAPET, GUNTUR-522001



DEPARTMENT OF ZOOLOGY

PROJECT REPORT

Redg.No: 19409035

Certified that this is a bonafide record of project report submitted by S. Hima Bindu Govt. College for Women (A), Guntur, as a part of V Semester Practical Examination during the year 2021-2022.

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Blood cancer

Introduction:-

A cancer of blood-forming tissues, hindering the body's ability to fight infection.

Leukaemia is cancer of blood-forming tissues including bone marrow. Many types exist such as acute lymphoblastic leukaemia, acute myeloid leukaemia and chronic lymphocytic leukaemia.

Some common blood cancer symptoms include.

- coughing or chest pain
- Fever & chills
- Frequent infections
- Itchy skin & rash
- Loss of appetite & nausea
- Night sweats
- Persistent weakness and fatigue
- Shortness of breath
- Swollen, painless lymph nodes in the neck, armpits, or groin

staging lets each member of your care team know the exact type, location and spread of the cancer.

staging systems are rather consistent for cancers that affect organs and other tissues, but blood cancer differs.

each type of blood cancer has its own staging criteria.

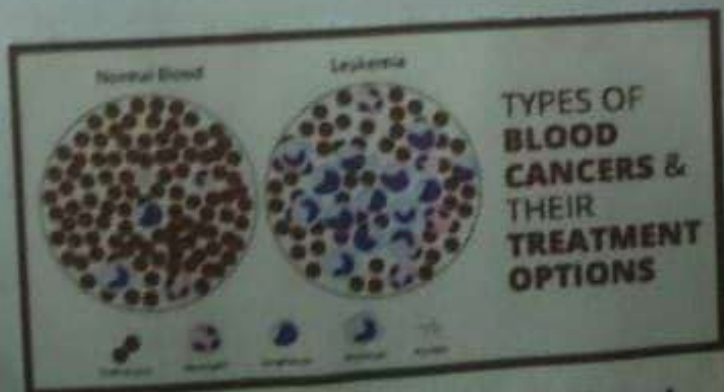
your doctor will explain how he or she stages your blood cancer.

Acute and chronic blood cancers.

you might see blood cancers described as

acute - this means a fast growing cancer

chronic - this means a slower growing cancer



**TYPES OF
BLOOD
CANCERS &
THEIR
TREATMENT
OPTIONS**

Blood Cancers and their Treat...

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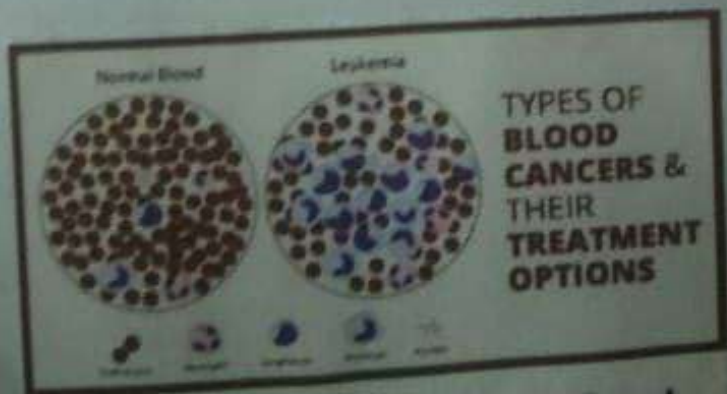
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Acute and chronic blood cancers.

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acute - this means a fast growing cancer

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Blood Cancers and their Treat...

GOVT. COLLEGE FOR WOMEN (A)

SAMBASIVAPET, GUNTUR-522001



DEPARTMENT OF ZOOLOGY

PROJECT REPORT

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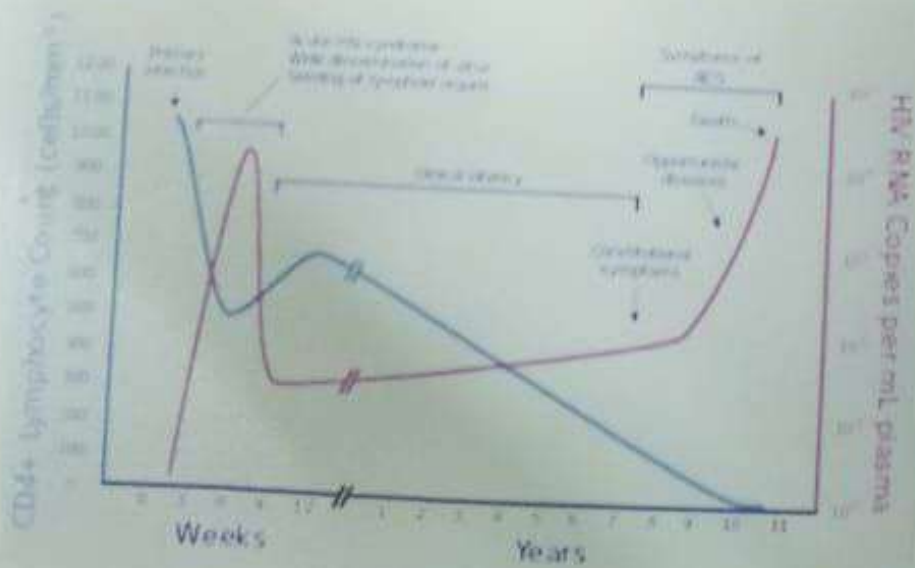
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HIV

The human immunodeficiency viruses (HIV) are two species of lentivirus that infect humans. Over time they cause acquired immunodeficiency syndrome (AIDS), a condition in which progressive failure of the immune system allows life-threatening opportunistic infections and cancers to thrive. Without treatment, average survival time after infection with HIV is estimated to be 9 to 11 years, depending on the HIV subtype. In most cases, HIV is a sexually transmitted infection and occurs by contact with or transfer of blood, pre-ejaculate, semen and vaginal fluids.



HIV infects vital cells in the human immune system such as helper T cells, macrophages and dendritic cells. HIV infection leads to low levels of CD4⁺ T cells through a number of mechanisms, including pyroptosis of abortively infected T cells, apoptosis of uninfected bystander cells, and killing of infected CD4⁺ T cells by CD8⁺ cytotoxic lymphocytes that recognize infected cells. When CD4⁺ T cell numbers decline below a critical level, cell mediated immunity is lost, and the body becomes progressively more susceptible to opportunistic infections leading to development of AIDS.



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DEPARTMENT OF ZOOLOGY

PROJECT REPORT

Redg.No: 19409022, 19409004

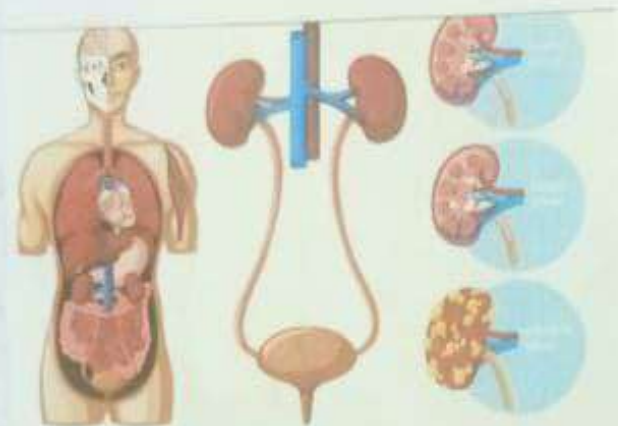
Certified that this is a bonafide record of project report submitted by Maddiboyina Vanisri, Nagarani Govt. College for Women (A), Guntur, as a part of V Semester Practical Examination during the year 2021-2022.

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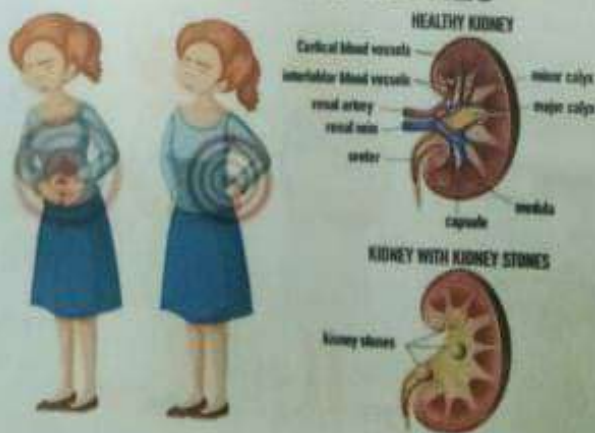
kidneys are a
 11 vertebrates.
 maintain balance
 1 pressure.

The kidneys
 are in the body.
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 bring that the
 S.

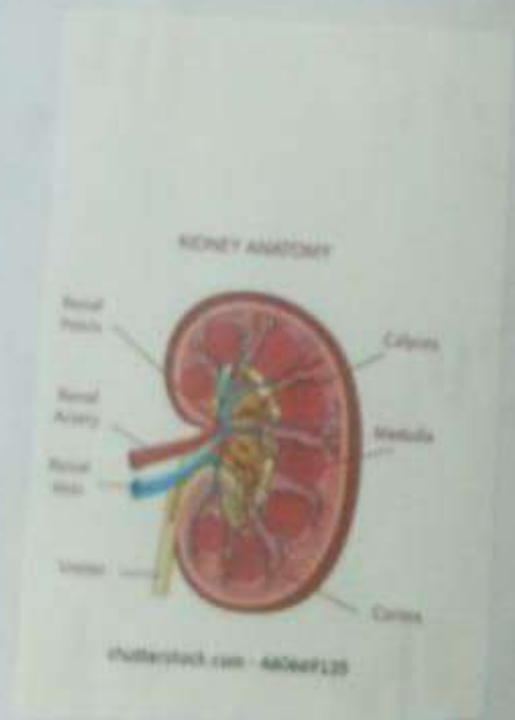
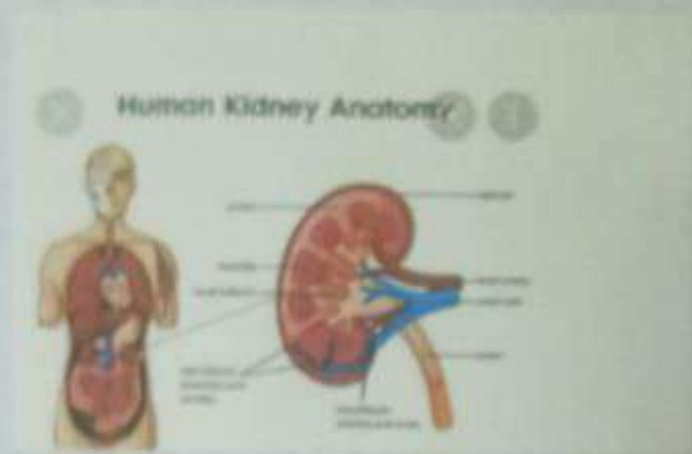
The positioning
 with one of
 generally slight
 for the liver

Each kidney
 is 6 cm wide
 1/2 of the kidney
 and 137 g for
 these organs is
 kidney.

HUMAN KIDNEY STONES



HUMAN BODY KIDNEY



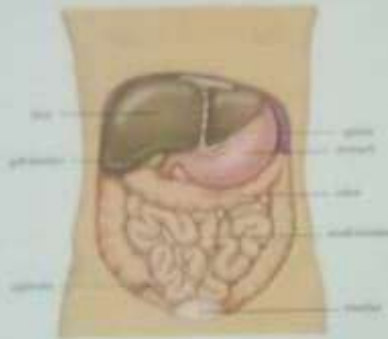
Liver

From Wikipedia, the free encyclopedia

[Jump to navigation](#)[Jump to search](#)

This article is about the organ. For other uses, see [Liver \(disambiguation\)](#).

Liver



The human liver is located in the upper right abdomen



Location of human liver (in red) shown on a male body

Details

ProQuest

Forest

GOVT. COLLEGE FOR WOMEN (A)

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DEPARTMENT OF ZOOLOGY

PROJECT REPORT

Redg.No: 19409026

Certified that this is a bonafide record of project report submitted by M. Poojitha Govt. College for Women (A), Guntur, as a part of V Semester Practical Examination during the year 2021-2022.

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that helps to reduce friction against other organs. This surface covers the convex shape of the two lobes where it accommodates the shape of the diaphragm. The peritoneum folds back on itself to form the falciform ligament and the right and left triangular ligaments.

These peritoneal ligaments are not related to the anatomic ligaments in joints, and the right and left triangular ligaments have no known functional importance, though they serve as surface landmarks. The falciform ligament functions to attach the liver to the posterior portion of the anterior body wall.

The visceral surface or inferior surface is uneven and concave. It is covered in peritoneum apart from where it attaches the gallbladder and the porta hepatis. The fossa of gall bladder lies to the right of the quadrate lobe, occupied by the gallbladder with its cystic duct close to the right end of porta hepatis.

Impressions (ed 11)



Impressions of the liver

Several impressions on the surface of the liver accommodate the various adjacent structures and organs. Underneath the right lobe and to the right of the gallbladder fossa are two impressions, one behind the other and separated by a ridge. The one in front is a shallow colic impression, formed by the hepatic flexure and the one behind is a deeper renal impression accommodating part of the right kidney and part of the suprarenal gland.

The suprarenal impression is a small, triangular, depressed area on the liver. It is located close to the right of the fossa, between the bare area and the caudate lobe, and immediately above the renal impression. The greater part of the suprarenal impression is devoid of peritoneum and it lodges the right suprarenal gland.

Medial to the renal impression is a third and slightly marked impression, lying between it and the neck of the gall bladder. This is caused by the descending portion of the duodenum, and is known as the duodenal impression.

The inferior surface of the left lobe of the liver presents behind and to the left of the gastric impression. This is moulded over the upper front surface of the stomach, and to the right of this is a rounded eminence, the tuber omentale, which fits into the concavity of the lesser curvature of the stomach and lies in front of the anterior layer of the lesser omentum.

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PROJECT REPORT

Redg.No: 19409014

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Hemoglobin

Introduction:

Hemoglobin (from greek word "haima - blood" + Latin word "globus - ball") abbreviated Hb or Hgb is the iron-containing oxygen-transport metalloprotein in the red blood cells (erythrocytes) of almost all vertebrates as well as the tissues of some invertebrates. Hemoglobin in blood carries oxygen from the lungs or gills to the rest of the body. There it releases the oxygen to permit aerobic respiration to provide energy to power the functions of the organism in process called metabolism.

A healthy individual has 12 to 20 gms of hemoglobin in every 100ml of blood.

Hemoglobin



Protein type	metalloprotein, globulin
function	Oxygen-transport
Cofactor(s)	Iron (4)

Hemoglobinemia is a medical condition in which there is an excess of hemoglobin in the blood plasma. This is an effect of intravascular hemolysis, in which hemoglobin seeps out from red blood cells, a form of anemia.

History



Max Perutz won the Nobel Prize for chemistry for his work determining the molecular structure of haemoglobin and myoglobin.

* In 1825, Johann Friedrich Engelhart discovered that the ratio of iron to protein is identical in the hemoglobins of several species.

* Gilbert Smithson Adair confirmed Engelhart's results in 1925 by measuring the osmotic pressure of haemoglobin solutions.

* Hünefeld in 1840, described the oxygen-carrying property of hemoglobin.

GOVT. COLLEGE FOR WOMEN (A)

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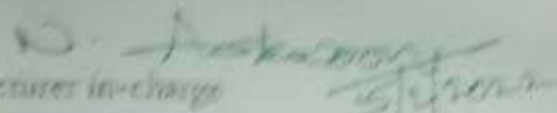


DEPARTMENT OF ZOOLOGY

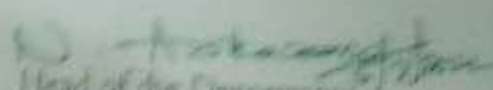
PROJECT REPORT

Redg.No: 1940/2022

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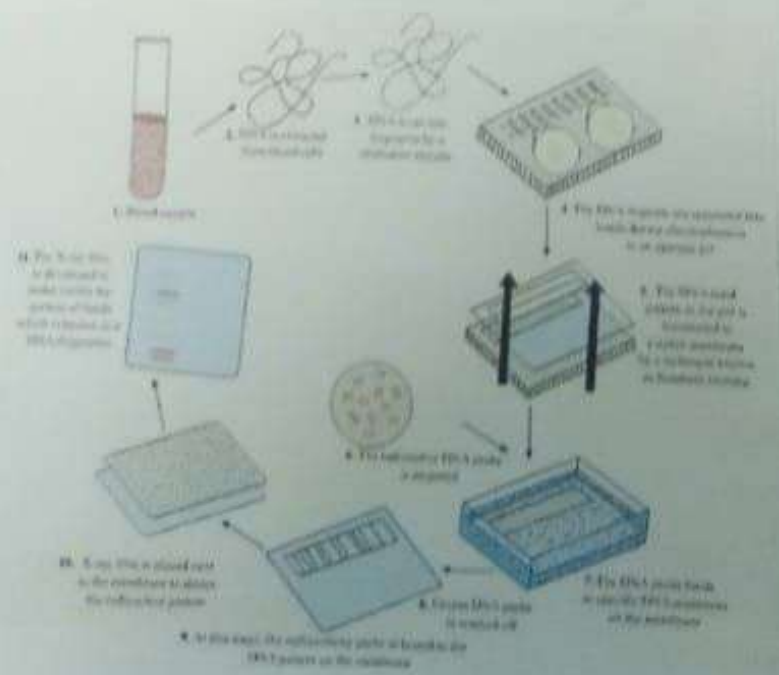

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Steps of DNA fingerprinting technique

DNA FINGER PRINTING

Introduction:

Genome of every individual has a unique set of repeated DNA sequences. These can be identified in a wide range of species by Southern Blot Analysis of Hind I restriction enzyme digests of genomic DNA using the DNA probe sequence. Visualization of the unique pattern of sequence provides a DNA fingerprint.

Protocol:

1. Isolation of Genomic DNA:

The cell pellet is lysed and treated with ribonuclease A and proteinase K. DNA is purified from the lysate by extraction with phenol and chloroform. Ethanol is used to precipitate the DNA which is recovered by centrifugation. The pellet is dried and redissolved in TE + EDTA.

2. Restriction enzyme digestion of DNA:

An excess of Hind I restriction enzyme is used to digest the DNA overnight at $37 \pm 1^\circ\text{C}$. A DNA sample with a known fingerprint is digested in parallel with the test sample.

GOVT. COLLEGE FOR WOMEN (A)

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DEPARTMENT OF ZOOLOGY

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**Animal
biotechnology**

project work

Study on IVF

IVF performed by

IVF is generally performed by Gynecologist doctors. Many gynecologists have a special interest in Fertility Treatment and do additional certification and qualifications as an infertility specialist. This procedure is usually performed in clinics and hospitals having special set-up for IVF procedure along with andrology



GOVT. COLLEGE FOR WOMEN (A)

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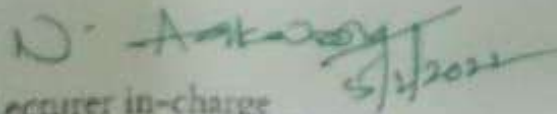


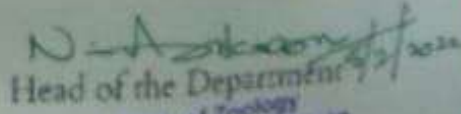
DEPARTMENT OF ZOOLOGY

PROJECT REPORT

Redg.No:19409020

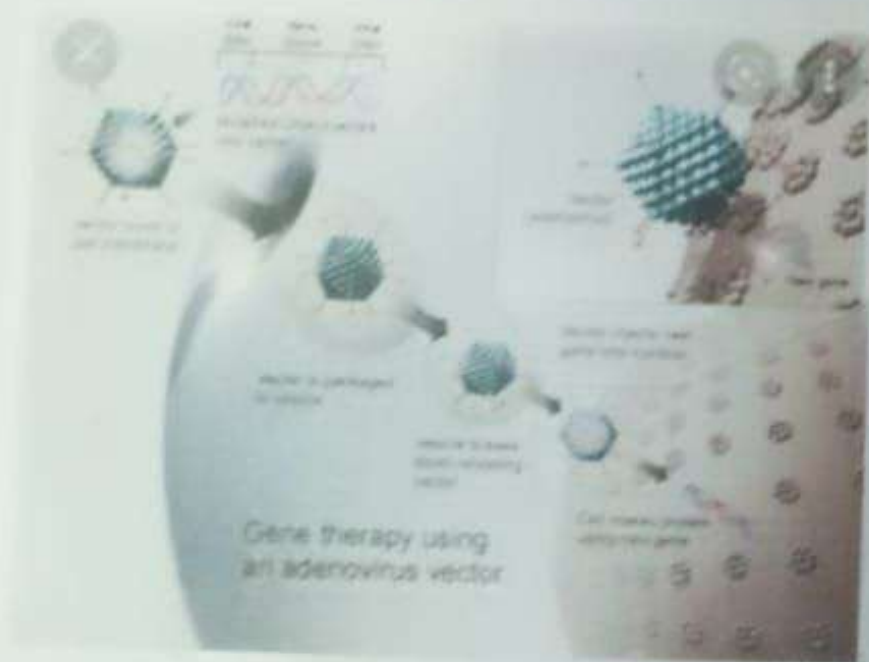
Certified that this is a bonafide record of project report submitted by K. Usha sri Govt. College for Women (A), Guntur, as a part of V Semester Practical Examination during the year 2021-2022.


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Gene therapy

Gene therapy is a medical field which focuses on the genetic modification of cells to produce a therapeutic effect & the treatment of disease by repairing & reconstructing defective genetic material. The first attempt at modifying human DNA was performed in 1980 by Martin Cline, but the first successful nuclear gene transfer in humans, approved by the National Institute of Health, was performed in May 1990. The first hematologic use of gene transfer as well as the first direct insertion of human DNA into the nuclear genome was performed by French scientist in a trial starting in September 1990.

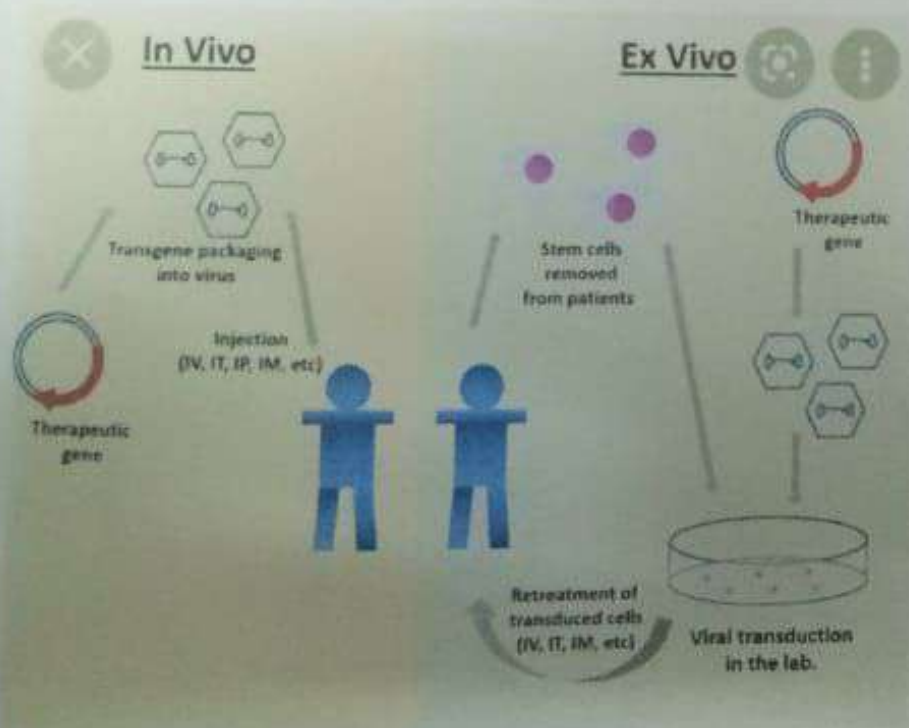


In Vivo versus ex vivo therapies

In *in vivo* gene therapy, a vector [typically, a virus] is introduced to patient, which then achieves the desired biological effect by passing genetic material [e.g. for a missing protein] into the patient's cells.

In *ex vivo* gene therapies such as CAR-T therapeutics, the patient's own cells [autologous] or healthy donor cells [allogeneic] are modified outside the body [hence, *ex vivo*] using a vector to express a particular protein, such as chimeric antigen receptor.

In vivo gene therapy is seen as simpler, since it does not require harvesting of mitotic cells. However, *ex vivo* gene therapies are better tolerated and less associated with severe immune responses. The death of Jesse Gelsinger in a trial of an adenovirus vectored treatment for ornithine transcarbamylase deficiency due to a systemic inflammatory reaction led to a temporary halt on gene therapy trials across the United States as of 2001. *In vivo* and *ex vivo* therapeutics are both seen as safe.



GOVT. COLLEGE FOR WOMEN (A)

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DEPARTMENT OF ZOOLOGY

PROJECT REPORT

Redg.No: 19409 033

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5/2/2022

Lecturer in-charge

Assistant Professor in Zoology

U.C. Dept. of Zoology

Gr. for Women

GUNTUR

Internal Examiner

N. Anil Kumar
5/2/2022

Head of the Department

Head, Dept. of Zoology

Govt. Degree College for Women

GUNTUR

External Examiner



objective of the study

Lung cancer research can help develop better treatments, increasing the survival and quality of life for patients. Research can provide a better and longer future for those, diagnosed with lung cancer as well and can also ultimately increase the number of survivors living with the disease. Lung cancer was first described by doctors in the mid



objective of the study

Lung cancer research can help develop better treatments, increasing the survival and quality of life for patients. Research can provide a better and longer future for those, diagnosed with lung cancer as well and can also ultimately increase the number of survivors living with the disease. Lung cancer was first described by doctors in the mid

LUNG CANCER

INTRODUCTION

Cancer is a disease caused when cells divide uncontrollably and spread into surrounding tissues. Cancer is caused



by changes to DNA. Smoking is the number one cause of lung cancer. Tobacco smoke contains many chemicals that are known to cause lung cancer. Lung cancer that begins in the lungs.

GOVT. COLLEGE FOR WOMEN (A)

SAMBASIVAPET, GUNTUR-522001



DEPARTMENT OF ZOOLOGY

PROJECT REPORT

Redg.No: 19409007

Certified that this is a bonafide record of project report submitted by N. Neelima Govt. College for Women (A), Guntur, as a part of V Semester Practical Examination during the year 2021-2022.

N. Anil Kumar
5/2/2022
Lecturer in-charge

Assistant Professor in Zoology
U n s PG Dept. of Zoology
Govt. College for Women (A)
Guntur

Internal Examiner

N. Anil Kumar
5/2/2022
Head of the Department

Head, Dept. of Zoology
Govt. Degree College for Women
Guntur

External Examiner

GOVT. COLLEGE FOR WOMEN (A)

SAMBASIVAPET, GUNTUR-522001



DEPARTMENT OF ZOOLOGY

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N. Anil Kumar
5/2/2022
Lecturer in-charge

Assistant Professor in Zoology
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N. Anil Kumar
5/2/2022
Head of the Department

Head, Dept. of Zoology
Govt. Degree College for Women
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External Examiner

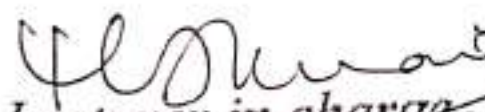


Department Of Botany

REGD NO 19409026

Certificate

This is to certify that Miss M. Poojitha bonafide student of III B.Sc (BZC) submitted her study project entitled Plant tissue culture and it's applications for practical examination of paper VII Elective paper plant Tissue culture and its biotechnological applications to Department of Botany Govt college for women, Guntur during the academic year 2021-22.


Lecturer in charge

9/8/2022


HOD


External examiner

HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.

S. No	Contents
1.	Introduction
2.	History of plant tissue culture
3.	Importance of plant tissue culture
4.	Types of plant tissue culture
5.	Tissue culture applications

GOVT COLLEGE FOR WOMEN(A)

A project report on :- plant tissue culture and it's applications in crop improvement

**DEPARTMENT OF
BOYANY**

Submitted by :-

R.ROSY PARIMALA

19409033

GOVT. COLLEGE FOR WOMEN(A), GUNTUR

Department Of Botany

REGD NO 19409033

Certificate

This is to certify that Miss R. Rosy parimala bonafide student of III B.Sc (BZC) submitted her study project entitled project report on plant tissue culture for practical examination of paper VII Elective paper plant Tissue culture and its biotechnological applications to Department of Botany Govt college for women, Guntur during the academic year 2021-22.


Lecturer in charge 5/2/2022


External examiner

HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.



INTRODUCTION

In biological research, tissue culture refers to a method in which fragments of a tissue (plant or animal tissue) are introduced into an artificial environment, where they continue to function or grow. The term tissue culture may be used for both plant and animal tissue culture. Plant tissue culture is the more specific term used for the culture of plant tissues in tissue culture.

Plant tissue culture is an essential component of plant biotechnology. Apart from mass multiplication of elites, it also provides a means to multiply and regenerate novel plants from genetically engineered cells. The promising plant thus produced may be readily cloned under aseptic conditions.

III B.Sc, VSEM Paper VI

Title: ENDANGERED PLANTS of
INDIA

Submitted to

Dept. of Botany, GCW(A), Guntur

By
Ratna Kumari, M. Sirishabai, M. Anna, P. Vani, P. Nareena
(Names)



PROJECT SUPERVISOR

Smt. M. Santosh Kumari

Lecturer in Botany

Govt College for Women(A)

Guntur

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI


M. Santosh kumari
M.C.B. Ed
Assistant Professor



CERTIFICATE

Regd No 19401021

This is to certify that the work present in this study project entitled Endangered plants of India is a bonafide work carried out by M. Sri reetha bai under my supervision at the Dept of Botany, Govt College for Women (A), Guntur 2021-22.


M. Santosh kumari
Project supervisor
Govt College for Women, (A)
Guntur


M. Santosh kumari
Project supervisor

**HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.**

Endangered Plants in India

Plant	Also Known As	Region (Status)
<i>Polygala regularis</i>	Milkwort	Gujarat (rare)
<i>Lotus orniculatus</i>	Bird's foot	Gujarat (rare)
<i>Amantotaxus assamica</i>	Assam catkin yew	Arunachal Pradesh (threatened)
<i>Ptilotum nudum</i>	Moa, skeleton, fork fern, and whisk fern	Karnataka (rare)

GOVT. COLLEGE FOR WOMEN(A), GUNTUR

Department Of Botany

REGD NO 19409022

Certificate

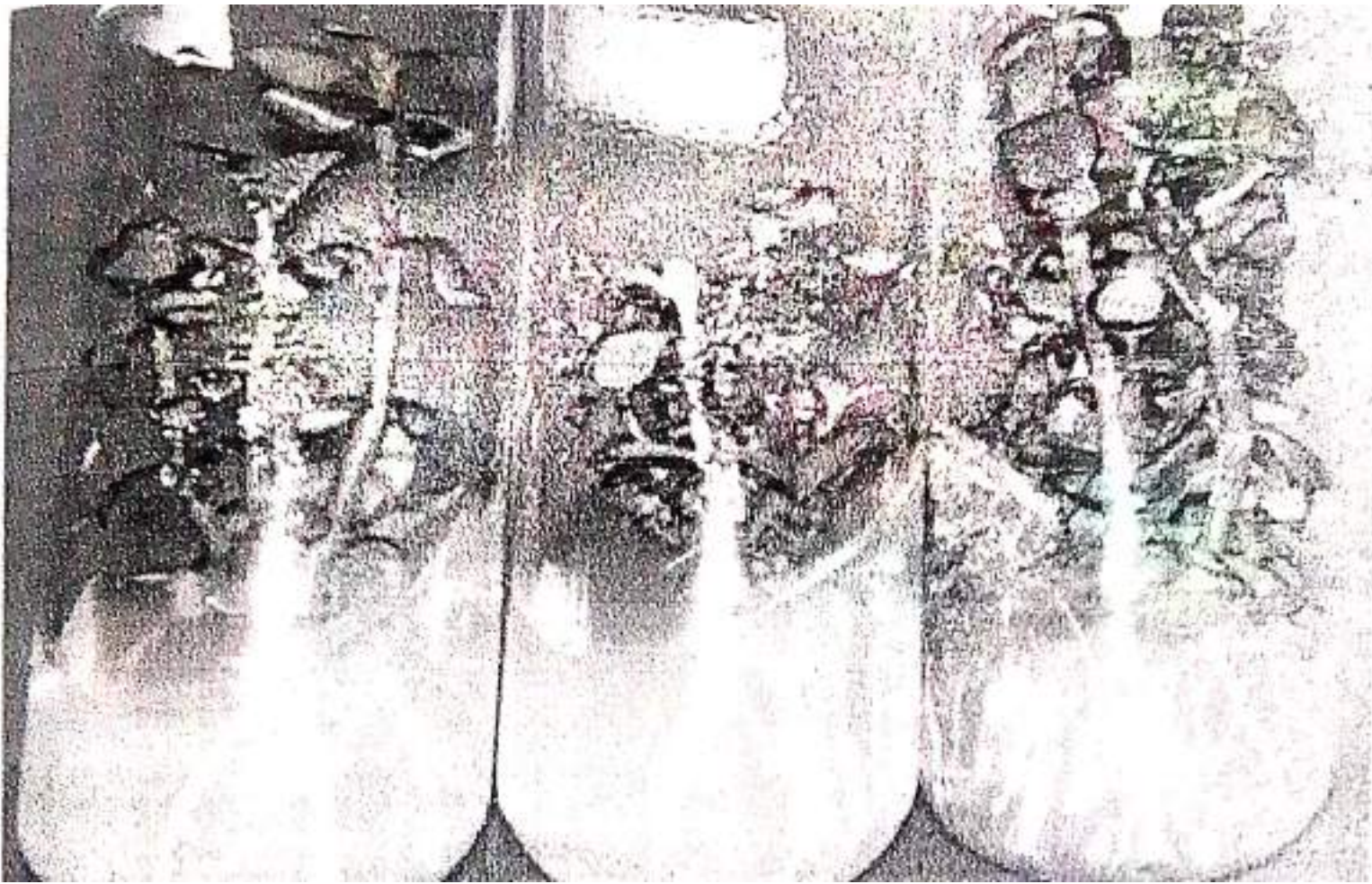
This is to certify that Miss M. Vanisri
bonafide student of III B.Sc (BZC) submitted her study
project entitled plant tissue culture and it's
applications. for practical examination of paper
VII Elective paper plant Tissue culture and its
biotechnological applications to Department of Botany
Govt college for women, Guntur during the academic year
2021-22.

Y. D. Murari
Lecturer in charge

ERH
(HOD)

External examiner

HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.



S. No	Contents	Pg. No
1.	Introduction	1
2.	History of plant tissue culture	1-2
3.	Importance of plant tissue culture	2-4
4.	Types of plant tissue culture	4-7
5.	Tissue culture applications	7

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title: Endemic plants of AP

Submitted to

Dept.of Botany, GCW(A), Guntur

By

Name: K.Kalyani, K-Sukanya, Jayasri, K.Kranthi

Sawjanya



[Handwritten Signature]
5/2/2022

PROJECT SUPERVISOR

Smt.M.Santosh kumari

Lecturer in Botany

Govt College for Women(A)

Guntur

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Smt.M.Santosh kumari
M.Sc,B.Ed
Asslstant Professor



CERTIFICATE

Regd No 19401014

This is to certify that the work present in this study project entitled
Endemie plants of AP is a bonafide work carried out by
K. Kalyani under my supervision at the Dept of Botany ,
GCW(A), Guntur


Place: Govt College for Women, (A)
Guntur


M.Santosh kumari
Project supervisor

HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.

Endemic Plants Of AP



Learning hands on
Importance

B.Sc project work submitted to the
Womens Collage

BY
Student name

Venna. RAJYA LAKSHMI

Project Supervisor
Teacher name

UMA MADAM

DEPARTMENT OF BOTANY
WOMENS DEGREE COLLEGE
GUNTUR, ANDHRA PRADESH, INDIA.

MAY - 2022

WOMENS DEGREE COLLEGE

DEPARTMENT OF BOTANY

This is to certify that the project work entitled "Learning hands on Tissue Culture Techniques And Their Importance" submitted by B.Sc Students, Ms. of Department of Botany is an authentic record of the original work carried out by her under my guidance. The results embedded in this project work report, in full or in part, have not been submitted for the award of any other degree.


Project Supervisor


Head of the department


Examiner

**HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.**

TYPES OF TISSUE CULTURE

TO,
FIFTH SEMESTER STUDENTS

BHAVYASREE P.S
ASSISTANT PROFESSOR ON CONTRACT BASIS
DEPT.OF BOTANY
LFC, GURUVAYOOR



WOMENS DEGREE COLLEGE

DEPARTMENT OF BOTANY


2021-22

Certificate

This is to certify that the project work entitled "Learning hands on Tissue Culture Techniques And Their Importance" submitted by B.Sc Students, Ms. of Department of Botany is an authentic record of the original work carried out by her under my guidance. The results embedded in this project work report, in full or in part, have not been submitted for the award of any other degree.


Project Supervisor


Head of the department


Examiner

9/5/22

HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.

S. No	Contents	Pg. No
1.	Introduction	1
2.	History of plant tissue culture	1-2
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4.	Types of plant tissue culture	4-7
5.	Tissue culture applications	7

**STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT
ECOLOGY**

III B.Sc, VSEM Paper V

**Title : Study project report on Floral diversity
of the campus of GCW(A), Guntur**

Submitted to

Dept. Of Botany, GCW(A), Guntur

By

Name: X. Blessy Jyothana
2021 - 22.



PROJECT SUPERVISOR

Smt. M.Santosh kumari

Lecturer in Botany

Govt College for Women(A), Guntur

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Smt.M.Santosh kumari
M.Sc,B.Ed
Assistant Professor



CERTIFICATE

Regd No. :-19409018

This is to certify that the work present in this study project entitled *Floral diversity of the campus of Govt College for Women (A), GUNTUR* is a bonafide work carried out by K. Blessy Jyothsna under my supervision at the Dept of Botany, GCW(A), Guntur submitted for the Academic year 2021-22


HEAD OF THE DEPARTMENT
DEPT OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR - 522 001, A.P.
Guntur


M.Santosh kumari
Project supervisor
2/2/2022

CONTENTS

SLNO	TOPIC	PAGE NO
1	INTRODUCTION	
2	MATERIAL METHODS	
3	RESULTS & DISCUSSION	
4	REFERANCES	

INTRODUCTION

Campus Audit aims to address the need for more comprehensive and focussed Education Training and Holistic Development of an institution. In the world of advanced researches and globalisation an

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title : GRASS LAND ECOSYSTEM

Submitted to

Dept.of Botany, GCW(A), Guntur

By

Name: M.TEJASWI (19402012)



PROJECT SUPERVISOR

Smt.M.Santosh kumari

Lecturer in Botany

Govt College for Women(A)

Guntur

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Smt. M. Santosh kumari
M.Sc. B.Ed
Assistant Professor



CERTIFICATE

Regd No - 19402012

This is to certify that the work present in this study project entitled
Grass Land Ecosystem. is a bonifide work carried out
by M. Tejaswi under my supervision at the Dept of Botany, GCW(A), Guntur

Place: Govt College for Women, (A)

Guntur
**HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.**

Project supervisor

21/2/2022

CONTENTS :

Introduction

Grassland Ecosystem

Grass Land Ecosystem Types

Scavengers

Animals In Grassland Ecosystem

Functions Of The Grass Land Ecosystem

Economic Importance Of Grassland Ecosystem

Food Chain Of Grassland Ecosystem

Primary consumers

Secondary consumers

Tertiary consumers

Decomposers

Conclusion

Reference

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title : *Ex-situ Conservation*

Submitted to

Dept.of Botany, GCW(A), Guntur

By

Name: *B. Shiny*



PROJECT SUPERVISOR

Smt.M.Santosh kumari

Lecturer in Botany

Govt College for Women(A)

Guntur

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI



2021-22


Dr. M. Santosh kumari
B.Sc, B.Ed
Assistant Professor

CERTIFICATE

Regd No 19404002

This is to certify that the work present in this study project entitled ex-vivo conservation is a bonafide work carried out by B. Shiny under my supervision at the Dept of Botany, W(A), Guntur for the Academic year 2021-22


Head of Department
Dept. of Botany
Govt. College for Women (A)
Guntur
31/08/2022


M. Santosh kumari
Project supervisor

HEAD OF THE DEPARTMENT
DEPARTMENT OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title: *Ex-situ Conservation*

Submitted to

Dept.of Botany, GCW(A), Guntur

By

Name: *G. Ratna Kumari*



2021-22

PROJECT SUPERVISOR

Smt.M.Santosh kumari

Lecturer in Botany

Govt College for Women(A)

Guntur

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

nt.M.Santosh kumari
.Sc,B.Ed
sistant Professor



CERTIFICATE

Regd No 19404004

This is to certify that the work present in this study project entitled Ex-situ Conservation is a bonafide work carried out by C. Ratna Kumari under my supervision at the Dept of Botany, W(A), Guntur submitted for V sem VI paper practical exams 2021-22


HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.

ce: Govt College for Women,(A)
Guntur


M.Santosh kumari
Project supervisor 2/2/2022

STUDY PROJECT ON ECOSYSTEM

Title : POND ECOSYSTEM

Submitted to

Dept. of Botany GCW(A),Guntur

By

Name : Miss *Peddi Bhargavi*



PROJECT SUPERVISOR

Devarapalli Uma

Lecturer in Botany

Govt. College for Women (A),

Guntur

March 2021

STUDY PROJECT ON ECOSYSTEM
PAPER VI – PLANT ECOLOGY AND PHYTOGEOGRAPHY

D.Uma
M.Sc., M.Ed.,
Assistant Professor



Govt. College of Women
Guntur

CERTIFICATE

This is to certify that the work present in this study project entitled Pond Ecosystem

_____ is a bonafide work carried out by
P. Bhargavi under my supervision at the Dept. of Botany

GCW,(A), Guntur.

Place: Govt. College for Women(A),

Date

D. Uma
(D. Uma)
02/02/22

Project Supervisor

HEAD OF THE DEPARTMENT
DEPARTMENT OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR, A.P.

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title : *In situ Conservation*

Submitted to

Dept.of Botany, GCW(A), Guntur

By

Name: *Y. Siva parvathi*



2021-22

PROJECT SUPERVISOR

Smt.M.Santosh kumari

Lecturer in Botany

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STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

M. Santosh kumari
B.Ed
Assistant Professor




CERTIFICATE

Regd No 19404007

is to certify that the work present in this study project entitled
In situ Conservation is a bonafide work carried out by
Y. Siva parvathi. under my supervision at the Dept of Botany ,
(A), Guntur for the Academic year 2021-22, V Sem


M. Santosh kumari
4/2/2022
Assistant Professor
Govt College for Women, (A)
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Y. Siva parvathi
4/2/2022
Project supervisor

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title: IUCN RED LIST OF THREATENED
SPECIES OF INDIA.

Submitted to

Dept.of Botany, GCW(A), Guntur

By

Name: G. Supriya - 19401008

G. Saisumitha - 19401009

G. Devika - 19401010

G. Hrudula Maggi - 19401011

G. Salomi - 19401013



PROJECT SUPERVISOR

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Lecturer in Botany

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[Handwritten Signature]
5/2/2022

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title : ENDANGERED PLANTS OF 'ANDHRA
PRADESH'

Submitted to

Dept.of Botany, GCW(A), Guntur

By
S. Sasi Rekha, S. Venkata Neelaja, Sk. Anna, T. thirupatamma.
Name: T. varalakshmi, y. etheru.



2021-22

PROJECT SUPERVISOR

Smt.M.Santosh kumari

Lecturer in Botany

Govt College for Women(A)

Guntur

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Santosh kumari
B.A.
& Professor



CERTIFICATE

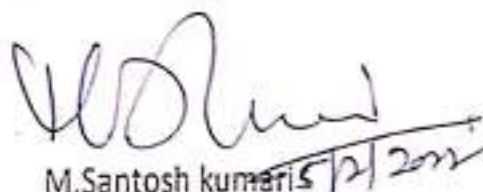
2021-22

Regd No 19401038

is to certify that the work present in this study project entitled
endangered plants of Andhra Pradesh is a bonafide work carried out by
Y. Esteru. under my supervision at the Dept of Botany ,
Guntur

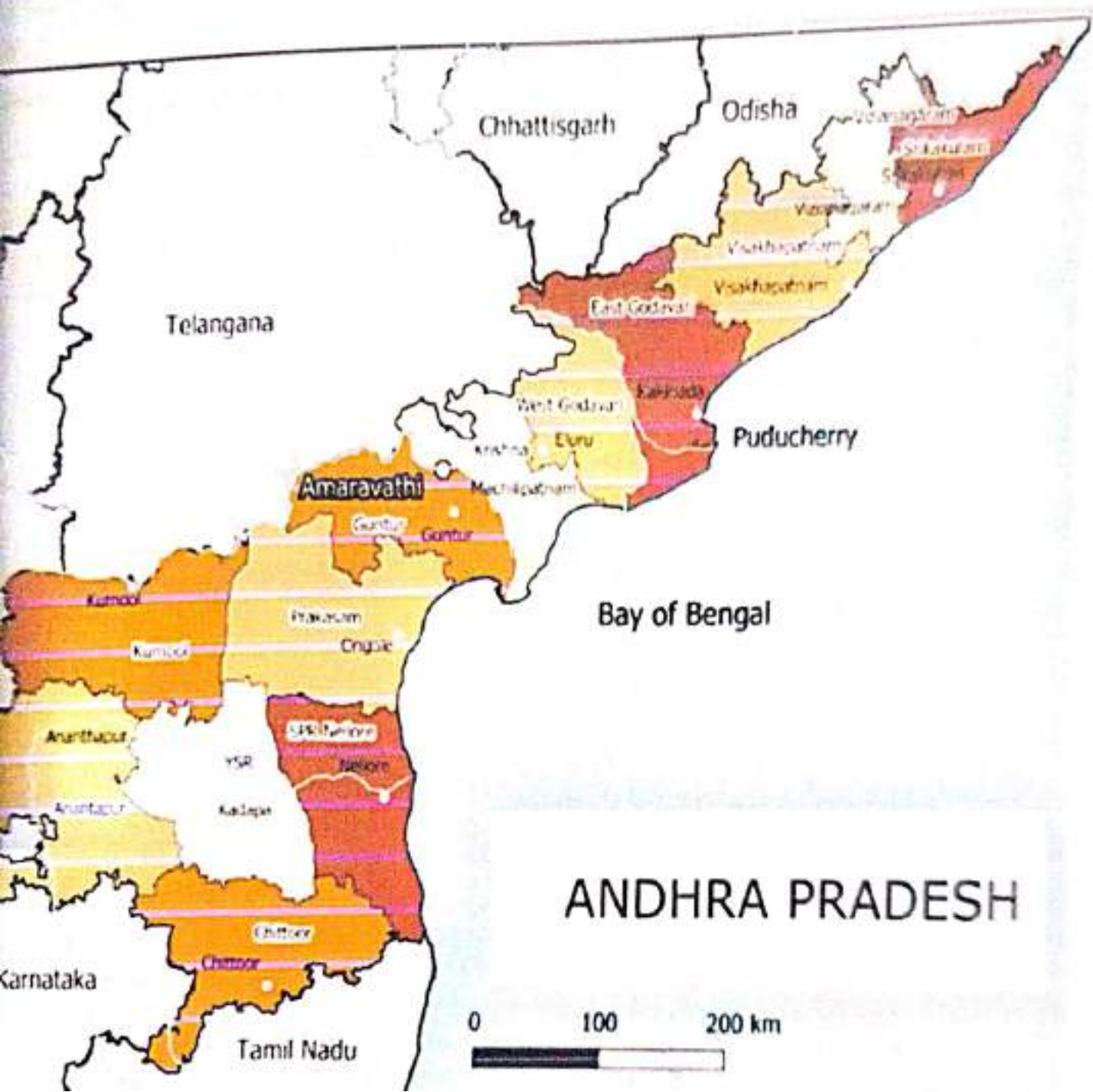

5/2/2022

Govt College for Women,(A)
Guntur


5/2/2022
M.Santosh kumari
Project supervisor

**HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.**

Endangered Plants of Andhra Pradesh



STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title: IUCN RED LIST OF THREATENED
SPECIES OF INDIA.

Submitted to

Dept.of Botany, GCW(A), Guntur

By

Name: • G. Supriya - 19401008
G. Saisomitha 19401009
G. Deeika - 19401010
G. Moudalamagsi - 19401011
G. Salomi - 19401013



[Signature]
PROJECT SUPERVISOR 22/12/22

Smt.M.Santosh kumari

Lecturer in Botany

Govt College for Women(A)

Guntur

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI


Smt M. Sahtosh Kumari
M.Sc, B.Ed
Assistant Professor



CERTIFICATE

Regd No 1940(006, 9, 10, 11) 12

This is to certify that the work present in this study project entitled
G. Supriya, Susmitha, Deulka, Maudula, Seloni is a bonafide work carried out by
_____ under my supervision at the Dept of Botany,
SCW(A), Guntur


Place: Govt College for Women, (A)
Guntur

**HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.**


M. Sahtosh Kumari
Project supervisor

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title : ENDANGERED PLANTS OF "ANDHRA
PRADESH."

Submitted to

Dept.of Botany, GCW(A), Guntur

By

S. Sali Rekha, S. Venkata Neeraja, & Anma. T. Thirupatamma

Name: T. varalakshmi, Y. esther.



2021-22.

PROJECT SUPERVISOR

Smt.M.Santosh kumari

Lecturer in Botany

Govt College for Women(A)

Guntur

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Dr. M. Santosh kumari
M.Sc, B. Ed
Assistant Professor



CERTIFICATE

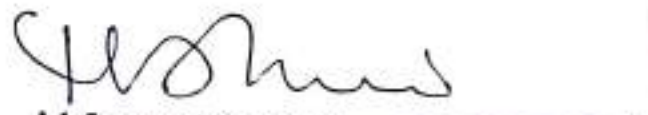
2021-22

Regd No 19401031

This is to certify that the work present in this study project entitled Endangered plants of Andhra Pradesh is a bonafide work carried out by SK. Asma under my supervision at the Dept of Botany ,

Govt College for Women (A), Guntur


Place: Govt College for Women, (A)
Guntur


M. Santosh kumari
Project supervisor

**HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.**

GOVT COLLEGE FOR WOMENS { A }

GUNTUR

PROJECT BOTANY

6th Paper Project

ECOLOGY

Conducted By: *Santoshi Kumari Madam*

Topic is:

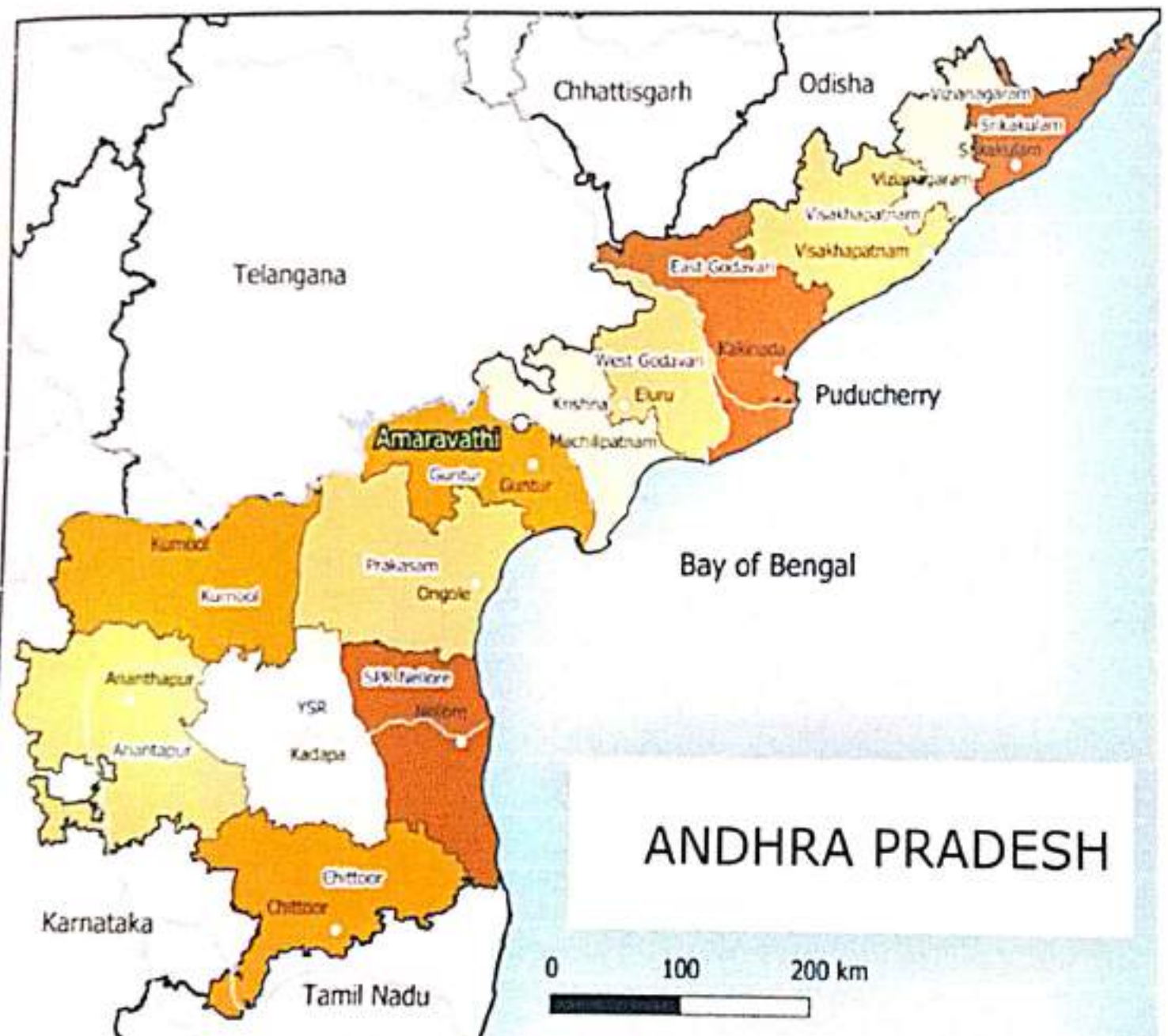
Endangered Plants of Andhra Pradesh

GROUP 3rd B.Sc., Bzc, (C2)

➤ Project Submitted Students:

1. *Sasi Rekha*
2. *Neeraja*
3. *Asma*
4. *Tirupathamma*
5. *Varalakshmi*
6. *Esther*

Endangered Plants of Andhra Pradesh



STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title: ENDANGERED PLANTS OF
INDIA

Submitted to

Dept.of Botany, GCW(A), Guntur

By Ratna Kumari, M. Sireeshabai, M. Anura, P. Vani, P. Nareema.
(Names)



2021-22

PROJECT SUPERVISOR

Smt.M.Santosh kumari

Lecturer in Botany

Govt College for Women(A)

Guntur

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Smt. M. Santosh kumari
M.Sc, B.Ed
Assistant Professor




2021-22

CERTIFICATE

Regd No 19401027

This is to certify that the work present in this study project entitled Endangered plants of India is a bonafide work carried out by P. Nareema under my supervision at the Dept of Botany, CW(A), Guntur


Head of the Department
Govt College for Women, (A)
Guntur


M. Santosh kumari
Project supervisor

HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.

Endangered Plants in India

Plant	Also Known As	Region (Status)
<i>Polygala irregularis</i>	Milkwort	Gujarat (rare)
<i>Lotus corniculatus</i>	Bird's foot	Gujarat (rare)
<i>Amentotaxus assamica</i>	Assam catkin yew	Arunachal Pradesh (threatened)
<i>Psilotum nudum</i>	Moa, skeleton, fork fern, and whisk fern	Karnataka (rare)



STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title: Endemic plants of India

Submitted to

Dept.of Botany, GCW(A), Guntur

By

Name: B. Indira bai

B. Parvathi

B. Nagamani

B. vineela

b. syamala

D. Nagurbi



2021-22

PROJECT SUPERVISOR

Smt.M.Santosh kumari

Lecturer in Botany

Govt College for Women(A)

Guntur

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Santosh kumar
Ed
t Professor



CERTIFICATE

19401001
19401002
19401003

Regd No 19401004

19401006
19401007

is to certify that the work present in this study project entitled
Endemic plants of India is a bonafide work carried out by

B. Indira Bai under my supervision at the Dept of Botany ,

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M. Santosh kumar
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HEAD OF THE DEPARTMENT
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GUNTUR - 522 001, A.P.

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT
ECOLOGY

III B.Sc, VSEM Paper V

Title : Study project report on Floral diversity
of the campus of GCW(A), Guntur

Submitted to

Dept. Of Botany, GCW(A), Guntur

By

Name: *Ks. Maha Lakshmi Gayathri*



PROJECT SUPERVISOR

Smt. M.Santosh kumari

Lecturer in Botany

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STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Smt.M.Santosh kumari
M.Sc,B.Ed
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Regd No. :- 19409013

This is to certify that the work present in this study project entitled *Floral diversity of the campus of Govt College for Women (A), GUNTUR* is a bonafide work carried out by Ms. Maha Lakshmi Gayathri under my supervision at the Dept of Botany, GCW(A), Guntur for 2021-22 Academic year.

Place: Govt College for Women,(A)
Guntur


M.Santosh-kumari, 22/12/2022
Project supervisor

HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
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CONTENTS

SLNO	TOPIC	PAGE NO
1	INTRODUCTION	1-2
2	MATERIAL METHODS	2-5
3	RESULTS & DISCUSSION	6-9
4	REFERANCES	9

INTRODUCTION

Campus Audit aims to address the need for more comprehensive and focussed Education Training and Holistic Development of an institution. In the world of advanced researches and globalisation an

STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Title: GRASSLAND ECOSYSTEM

Submitted to

Dept. of Botany, GCW(A), Guntur

By

Name: P. Prasanthi



2021-22

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Lecturer in Botany

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STUDY PROJECT IN PHYTOGEOGRAPHY & PLANT ECOLOGY

III B.Sc, VSEM Paper VI

Dr. M. Santosh Kumari
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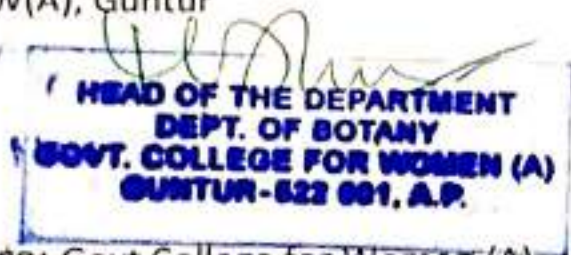


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GRASS LAND ECOSYSTEM is a bonafide work carried out by
P. Prasanthi under my supervision at the Dept of Botany ,

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Place: Govt College for Women, (A)
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M. Santosh Kumari
Project supervisor

CONTENTS :

Introduction

Grassland Ecosystem

Grass Land Ecosystem Types

Scavengers

Animals In Grassland Ecosystem

Functions Of The Grass Land Ecosystem

**Economic Importance Of Grassland
Ecosystem**

Food Chain Of Grassland Ecosystem

Primary consumers

Secondary consumers

Teritary consumers

Decomposers

Conclusion

Reference

Learning hands on Tissue Culture Techniques And Their Importance

B.Sc project work submitted to the
Womens Collage

BY

Student name

B. Sailaja

19402002

Project Supervisor

Teacher name

D. Uma Nischal

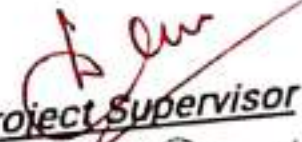
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WOMENS DEGREE COLLEGE
GUNTUR, ANDHRA PRADESH, INDIA.
MAY - 2022

WOMENS DEGREE COLLEGE


DEPARTMENT OF BOTANY

Certificate

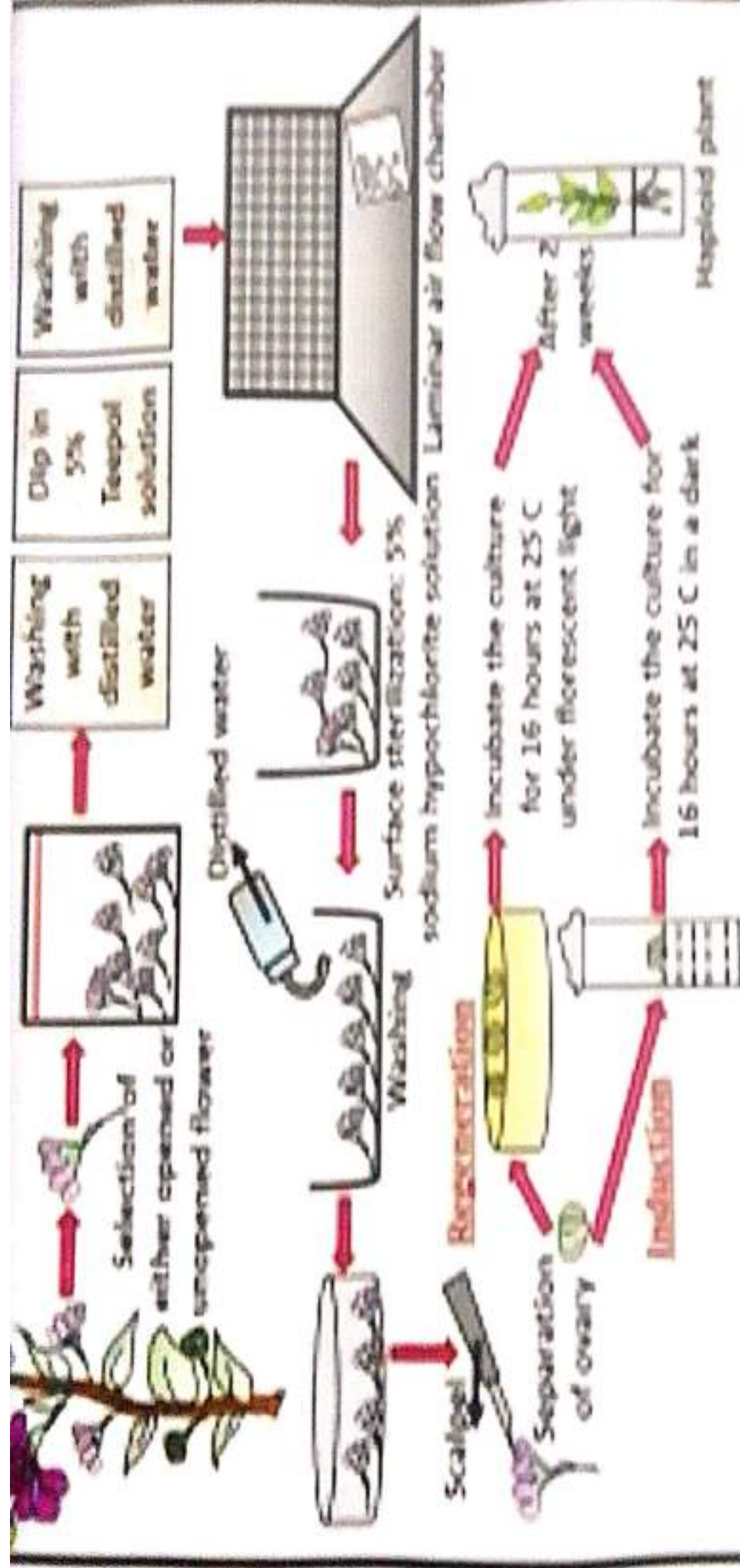
This is to certify that the project work entitled "**Learning hands on Tissue Culture Techniques And Their Importance**" submitted by B.Sc Students, Ms. of Department of Botany is an authentic record of the original work carried out by her under my guidance. The results embedded in this project work report, in full or in part, have not been submitted for the award of any other degree.


Project Supervisor


Examiner


Head of the department

HEAD OF THE DEPARTMENT
DEPT. OF BOTANY
F. COLLEGE FOR WOMEN (A)
GUNTUR-522 001, A.P.



OVARY CULTURE OR GYNOGENESIS

UNIT-IV**Pharmacodynamic Drugs:****8h**

1. Antiasthma Drugs (Solbutamol) 3. Antianginals (Glycerol Trinitrate)
4. Diuretics(Frusemide)

Additional inputs: Biological activity and side effects**UNIT-V****HIV-AIDS:****9h**

Immunity - CD-4cells, CD-8cells, Retro virus, Replication in human body, Investigation available, prevention of AIDS, Drugs available - examples with structures: PIS: Indivanir (crixivan), Nelfinavir(Viracept).

Additional inputs: Biological activity and side effects**iii. Practical syllabus-VIIC-3:****LABORATORYCOURSE-VIIC-3****30hrs(2 h /w)**

(At the end of Semester-VI)

50 M**Project Work / Internship****iv. Scheme of valuation for practical-VIIC-3****III B.Sc, Chemistry Practical VIIC-3-Scheme of valuation**

Evaluation of the project work

50 M

1. Understanding the subject and conceptualization of key areas- 5M
2. Innovative techniques or approach to the project undertaken - 5M
3. Report writing, presentation certification from guide - 10M
4. Presentation of project - 20M
5. Viva - 10M



Govt. College for Women (AUTONOMOUS) - GUNTUR, 1942 (Estd.) College with Potential for Excellence

Determination of caffeine in Tea Samples and rate of evaporation of different liquids.

By

- S.Pranavi – 19301039
- N. Mounya – 19301028
- G.Sudharani – 19301015
- R. Gayathri – 19301037
- Sk. Afreen-19301040
- Y. Mounika – 19301057
- Ch. Tejaswini – 19402005

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Department of Chemistry, Government College for women (A),

Guntur – 522003, Andhra Pradesh

June 2022

Bonafide Certificate


This is to certify that this is a bonafied record of project work "Determination of caffeine in Tea Samples and rate of evaporation of different liquids" done in partial fulfillment of Cluster paper III by us during the year 2021 – 2022.

Title : Determination of caffeine in Tea Samples and rate of evaporation of different liquids.

Submitted to the Department of Chemistry, Government College for women (A), Guntur.


Incharge of the department


Signature of the project supervisor


Signature of the Principal
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Place: Guntur

EFFECTING FACTORS OF RATE REACTION AND VOLUMETRIC ANALYSIS



By

B. Anusha (19402001)
E. Rama Suma (19409008)
E. Pavani (19301010)
B. Devi (19301004)
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Submitted to the Department of Chemistry, Government
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Place: Guntur

STUDY OF TRANSITION RANGES OF SYNTHETIC AND NATURAL INDICATORS



BY

1. SHAIK SHAZIYA MEHABOOB – 19301046
2. SHAIK SHABEENA SULTANA -19301045
3. K.NAGAMANI -19301021
4. P. PREETHI -19301032
5. K. GAYATHRI -19301018
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JUNE -2021-22


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This is to certify that this is a Bonafide record of project work about indicators done in partial fulfillment of cluster paper III done by us of during the year 2021-22

Title : STUDY OF TRANSITION RANGES OF SYNTHETIC AND NATURAL INDICATORS

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**ESTIMATION OF CASEIN CONTENT IN MILK AND
ASCORBIC ACID PRESENT IN CITRUS FRUITS**

BY

K.SWARNA KUMARI	(Reg. No.: 19402010)
B.AISWARYA	(Reg. No.: 19301003)
M.KALYANI	(Reg. No.: 19301024)
D.SWAPNA MADURI	(Reg. No.: 19301008)
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T.PRAVALLIKA	(Reg. No.: 19301048)

Under the guidance of
Smt. M.KAMALA KARUNA



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CERTIFICATE

This is to certify that the project entitled ESTIMATION OF CASEIN CONTENT IN MILK AND ASCORBIC ACID PRESENT IN CITRUS FRUITS is a bonafied record done by **GROUP-A** submitted in the fulfilment of final semester of B. Sc. (CHEMISTRY), during the year 2021-2022 under the esteemed supervision of Smt. M.KAMALA KARUNA, Govt. College for Women, Guntur.


M. KAMALA KARUNA
Project guide


Head of the Department

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GUNTUR
June 2022


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*Study of Rates of Fermentation of
Fruit Juices and Analysis of Honey*

By

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Upputholla Pujitha	-19301053
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**TITLE: Rates of Fermentation of Fruit Juices &
Analysis of Honey**

Submitted to the Department of Chemistry, Government college for women (A), Guntur.

 23/6/2022

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U.Pujitha

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Ch.Nagajyothi

 23/6/22
Signature of Project Supervisor


Signature of Principal

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GUNTUR

Place: Guntur

A project Report on

SMART REFRIGERATOR

Submitted in partial fulfilment of the requirements
For the award of the degree of

BACHOLER OF SCIENCE

IN

COMPUTER SCIENCE

Submitted by

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S.Purnakavitha	19307024
I.Radha	19307007
S.Gowthami	19307025

Under the esteemed guidance of

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Lecturer in computer science



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2019-22

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9/6/22

COMPUTER DEPARTMENT

Govt. College for Women

GUNTUR

A project Report on
SALESFORCE HOSPITAL MANAGEMENT SYSTEM

Submitted in partial fulfilment of the requirements
For the award of the degree of

BACHELOR OF SCIENCE

IN

COMPUTER SCIENCE

Submitted by

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JYOTHI 19307018

KOWSALYA 19307011

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A project Report on
ONLINE FOOD ORDERING SYSTEM

Submitted in partial fulfilment of the requirements
For the award of the degree of

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IN

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A.Pravallika 19307001

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A project Report on
Hotel Reservation System
Submitted in partial fulfilment of the requirements
For the award of the degree of

BACHOLER OF SCIENCE

IN

COMPUTER SCIENCE

Submitted by

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A project Report on

SMART WATCHES

Submitted in partial fulfilment of the requirements
For the award of the degree of

BACHOLER OF SCIENCE

IN

COMPUTER SCIENCE

Submitted by

U.uma maheswari	(19307028)
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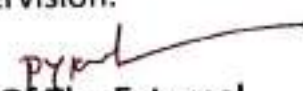
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ACHARYA NAGARJUNA UNIVERSITY
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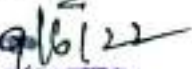
This is to certify that the dissertation titled "Smart Watches " is submitted by U.Uma Maheswari, V.Harika, D.Madhuri, M.Alekhyia students of B.Sc. (Maths,Computerscience,Cloud Computing), in partial fulfilment of the requirements for the award of the degree of **BACHELOR OF SCIENCE** is a record of bonafide work carried out by them under my supervision.


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A project Report on

S AND S GIFTING

Submitted in partial fulfilment of the requirements
For the award of the degree of

BACHELOR OF SCIENCE

IN

COMPUTER SCIENCE

Submitted by

M. Sravya 19307012

Under the esteemed guidance of

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Lecturer in computer science



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2019-22**

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This is to certify that the dissertation titled "S and S Gifting" is submitted by M.Sravya student of B.Sc. (Cloud Computing), in partial fulfilment of the requirements for the award of the degree of BACHELOR OF SCIENCE is a record of bonafide work carried out by them under my supervision.

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COMPUTER DEPARTMENT
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Govt. College for Women
(AUTONOMOUS) - GUNTUR, 1942 (Estd.)
College with Potential for Excellence

Department of Home Science

Study Project

on

Surface Ornamentation technique – Embroidery

Course title : Textiles Science

Course code :HS 5313 (2019-2022)

Course Incharge : Dr.K.Anitha Kumari

Asst. professor, Dept of Home Science, GCW(A), Guntur

Done by,

BOMMU ANUSHA	19408004
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TATA VINEELA	19408025
VEERLA ANURADHA	19408029



Govt. College for Women
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College with Potential for Excellence

Department of Home Science

Study Project

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Course title : Textiles Science

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ESLAVATH SANTHI BAI	- 19408010
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TATA VINEELA	- 19408028
VEERLA ANURADHA	- 19408029

Surface

Ornamentation

technique – Embroidery Aim: To use Embroidery as a surface ornamentation technique.

Introduction: As a part of student project the project named "Surface Ornamentation technique – Embroidery" has been selected by group of six students of final BSc Homescience. We collected information from various sources and synthesized and presented the project as follows.

Objectives:

1. To collect information on various embroidery techniques
2. To analyze and synthesize information according to each technique
3. To know the method of construction of each technique
4. To understand various tools of embroidery and design transfer techniques
5. To analyze how embroidery has become one of the surface ornamentation technique for textiles

Methodology: We the students of III BSC Homescience as a part of Textiles science course the skill development component called "Surface enrichment techniques- Embroidery" has been selected as student project and collected information on various embroidery techniques, synthesize information according to each technique, described the procedure to construct each technique, listed tools used, design transfer techniques, and prepared samples on each technique was done in order to analyze how embroidery has become one of the surface ornamentation technique for textiles.

Presentation: The Samples are done with 16 techniques, The simple to complex embroidery techniques are placed in the write – up procedure of construction for each techniques followed by the finished sample was orderly aorderly.

Embroidery Stitches and Technique

The beauty of embroidery lies in various techniques where the thread is magnificently presented by the magic of needle movement. A certain set of stitches are listed and described as follows :

- ✚ Chain stitch
- ✚ magic chain stitch
- ✚ Stem stitch
- ✚ Feather stitch
- ✚ Button Hole stitch
- ✚ Fish bone stitch
- ✚ Couching stitch
- ✚ Romanian couching stitch
- ✚ Herring Bone stitch
- ✚ French knot
- ✚ Double knot
- ✚ Bullion knot
- ✚ Fly stitch
- ✚ Satin stitch
- ✚ Pekinese stitch

CHAIN STITCH

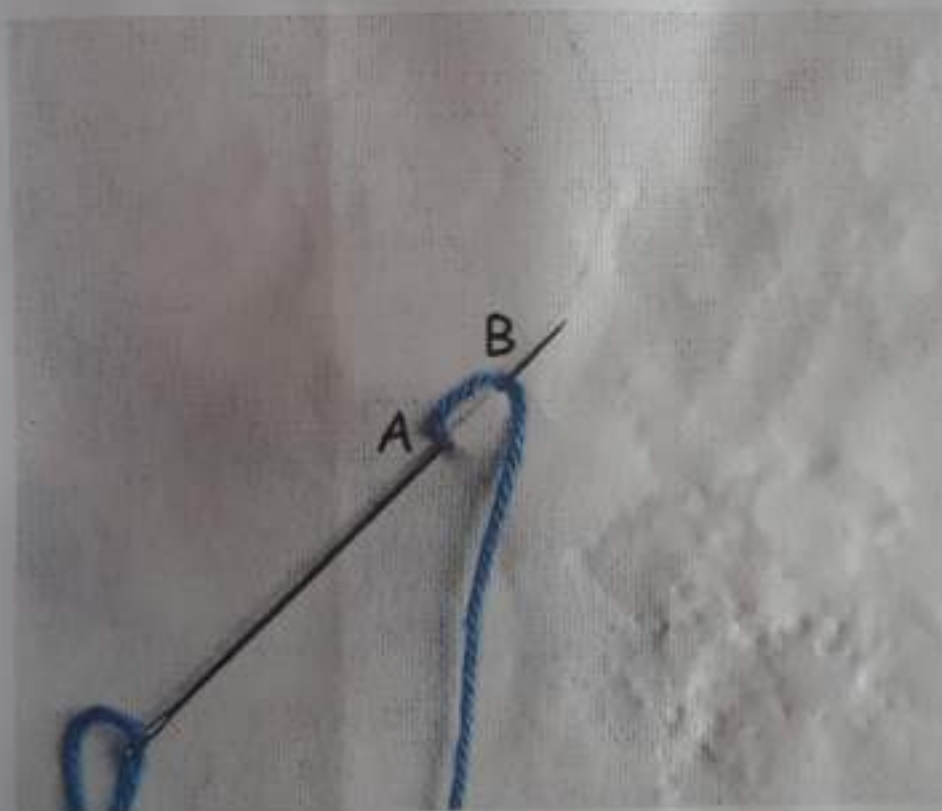


CHAIN STITCH

It is one of the most popular embroidery stitches for outlining or, if worked in closed rows then used for filling an area.

STITCHING PROCEDURE;

- To make the chain stitch, bring the needle from below up ward.



- The needle is inserted back in to the same hole and taken out at some distance above it (that firms the Of the stitch)
- The working yarn is carried under the needle point.
- Now, Pull the needle gently.
- In this way, a chain loop is made.

MAGIC CHAIN STITCH



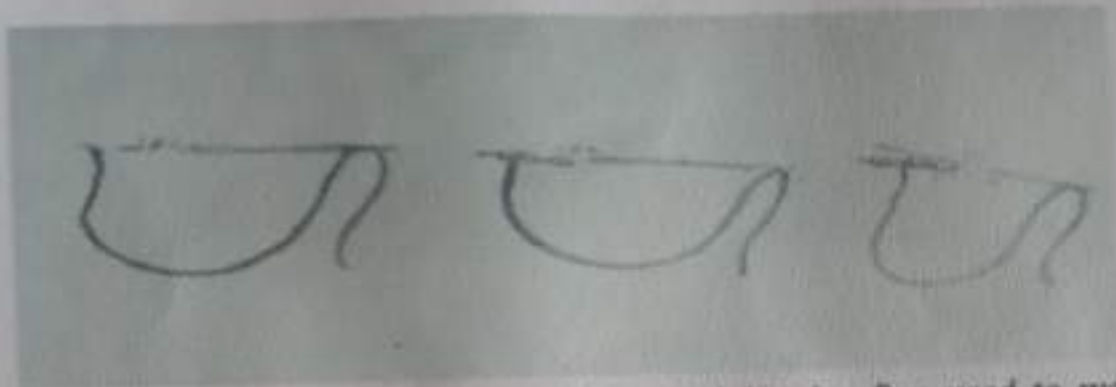
MAGIC CHAIN;

- Work next stitch the same way always inserting needle in to the hole made by the emerging thread.continue in this way for the entire row or the design.
- For chequered chain stitch,thread needle with two threads of constating colours.work a chain stitch holding the thread,which is being worked firmly with thumb. Adjust the loose thread and then adjust the chain stitch just worked.
- Work another chain stitch with the constrasting colour holding the thread in position until the loose thread is adjusted.

STEM STITCH



STEM STITCH;



It is primarily an outlining stitch, but is often used to work stems in floral designs as well.

STITCHING PROCEDURE;

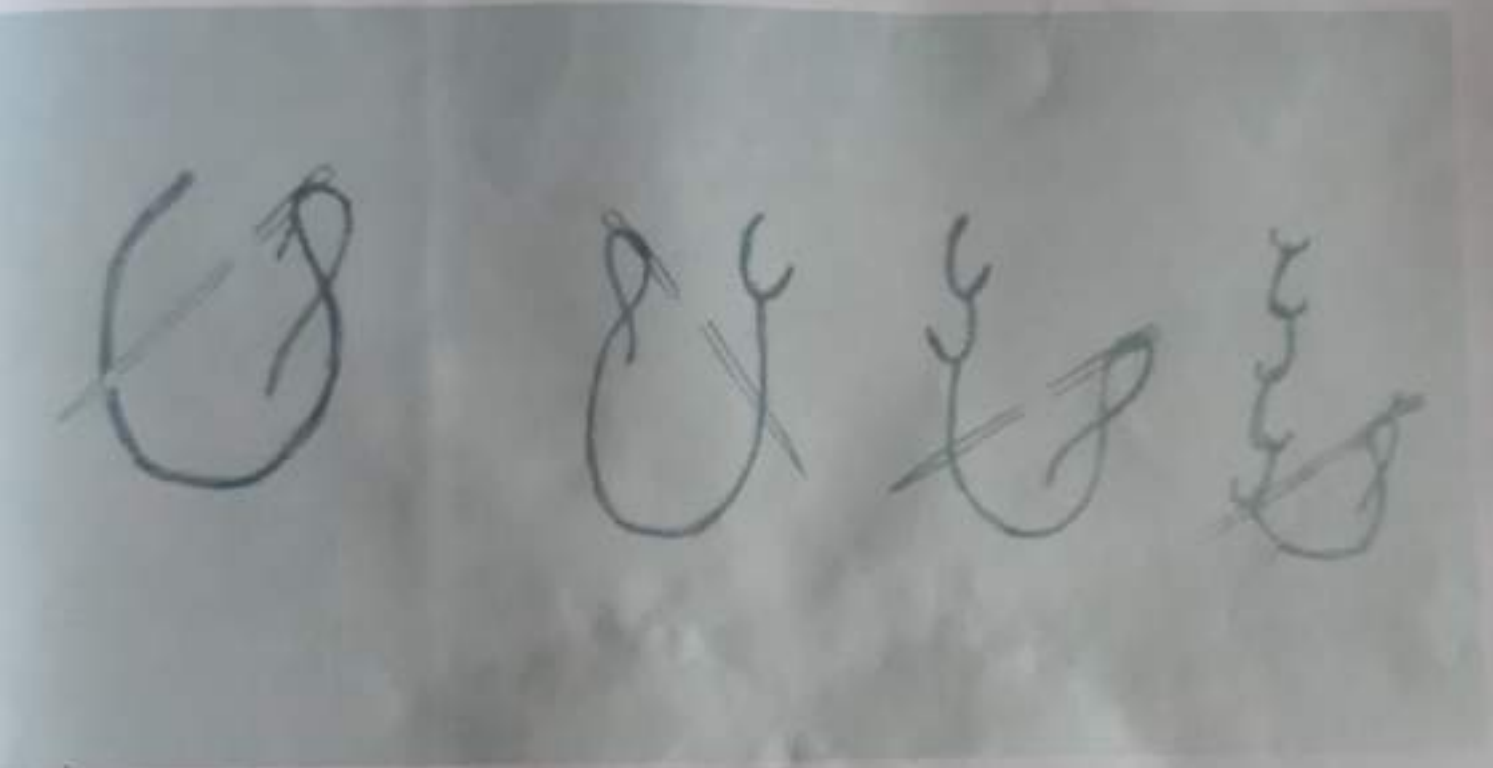
- Work from left to right on the same line.
- Bring needle out at a starting point 1.
- Insert at a point 2 which is one stitch length away from 1 and exit at 3, half stitch length back between 1&2; distance 1-3 and 3-2 should be equal i.e. is around 2mm.
- Repeat sequence. Note that point 3 of previous stitch is now point 1.
- The needle emerging at 3 is coming from hole by thread entering at point 2 of previous stitch.

FEATHER STITCH



FEATHER STITCH;

This gives a delicate effect to make the hand embroidery.



STITCHING PROCEDURE;

- Work stitches from top to bottom. Draw 3 imaginary lines as guidelines for stitching.
- Bring needle up at 1 in center of the three imaginary lines drawn.
- Insert needle at 2 slightly lower and to the right of the 1.
- Then angle needle out at 3 (below 1 in few mm in distance) along center line, carrying working yarn under point and pull through.
- Insert needle at 4 slightly below and to left of 3.
- Angle out at 5 along Centerline; carry yarn under point and pull through.
- Continue, alternating angle of looped Stitches.
- To end row, take a small stitch over last loop.

BUTTON HOLE



BUTTON HOLE STITCH;

When blanket stitches are worked closely they give button hole stitches. It is a popular finishing stitch for edges extensively in cutwork embroidery.



STITCHING PROCEDURE;

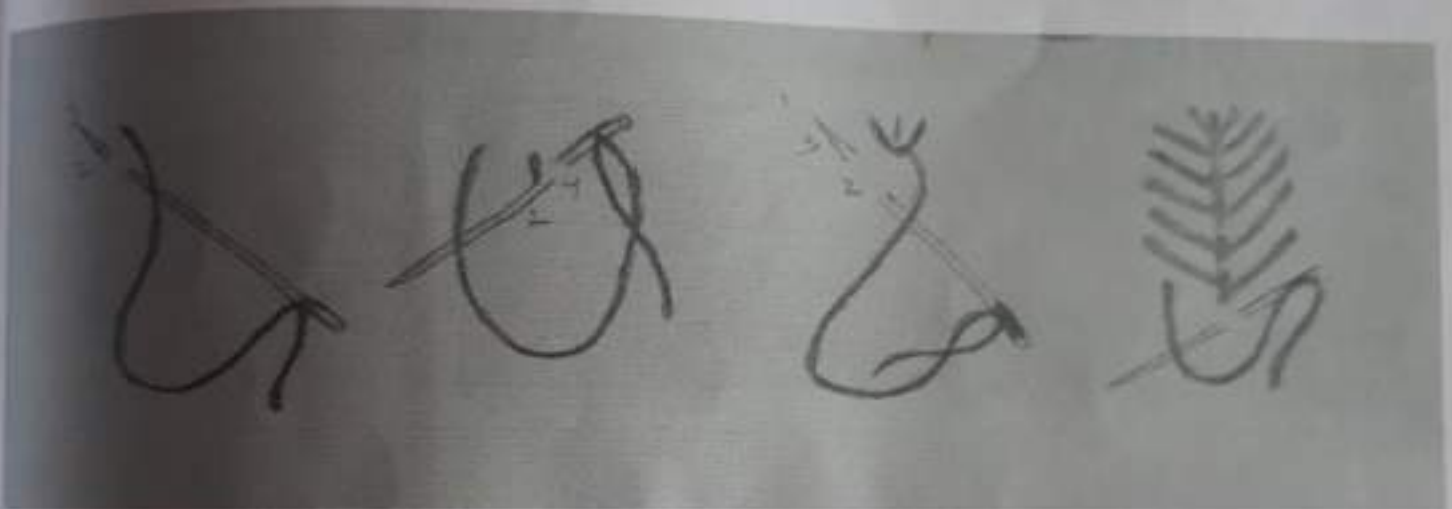
- Stitch is worked from left to right and between two rows, to give the height depending on the design of the work.
- Bring needle out at starting point 1.
- Insert the needle at a point 2 on the top line and slightly to the right of 1.
- Exit at point 3 right to 1, directly below 2.
- Before pulling needle through, carry yarn under point of needle and proceed to next stitch.
- Note point 3 of previous stitch is now point 1 for second stitch.
- Work entire row in the same way, working closely and maintaining the height of stitches even throughout.

FISH BONE STITCH



FISH BONE STITCH;

This is used to give bone effect at the center of the design. It is worked in an oval or circled form. The forms are generally divided in to two at the center to create the effect.



STITCHING PROCEDURE;

- Bring needle up at 1 and take a small stitch down center to 2.
- Bring needle up at 3, left to 1 and insert at 4 directly across from 3.
- Exit at 2 and carry yarn under needle point and pull through.

COUCHING STITCH



COUCHING STITCH;

It is used to outline the design.



STITCHING PROCEDURE;

- To start, bring up desired number of laid yarns at right.
- Use left thumb to hold and guide laid yarns as you couch over them.
- Bring working yarn up at 1 (starting point) just below laid yarns.
- Insert at 2 directly above laid yarns, and exit at farther along the line (on the line with 1)
- Point 3 is now point 1 for next stitch. Continue until the laid yarns are anchored.
- Keep distance between the stitches consistent.
- Bring ends of laid yarns to back and secure.

ROMANIAN COUCHING



ROMANIAN COUCHING;

This uses same yarn for laid and couching yarns. The couching stitches are worked longer.



STITCHING PROCEDURE;

- Bring yarn up at 1.
- Insert at 2, exit at 3 above laid yarn.
- Take a long slanting stitch over laid yarn to 4; exit at 1 for start of next row.
- Continue taking laid and couching stitches.
- Keep yarns slack so that the two stitch types appear indistinguishable stitch above one in previous row.

HERRING BONE



HERRING BONE STITCH;

This is used to fill the areas. When it is worked on the transparent fabric on their backside it is called as shadow work .



STITCHING PROCEDURE;

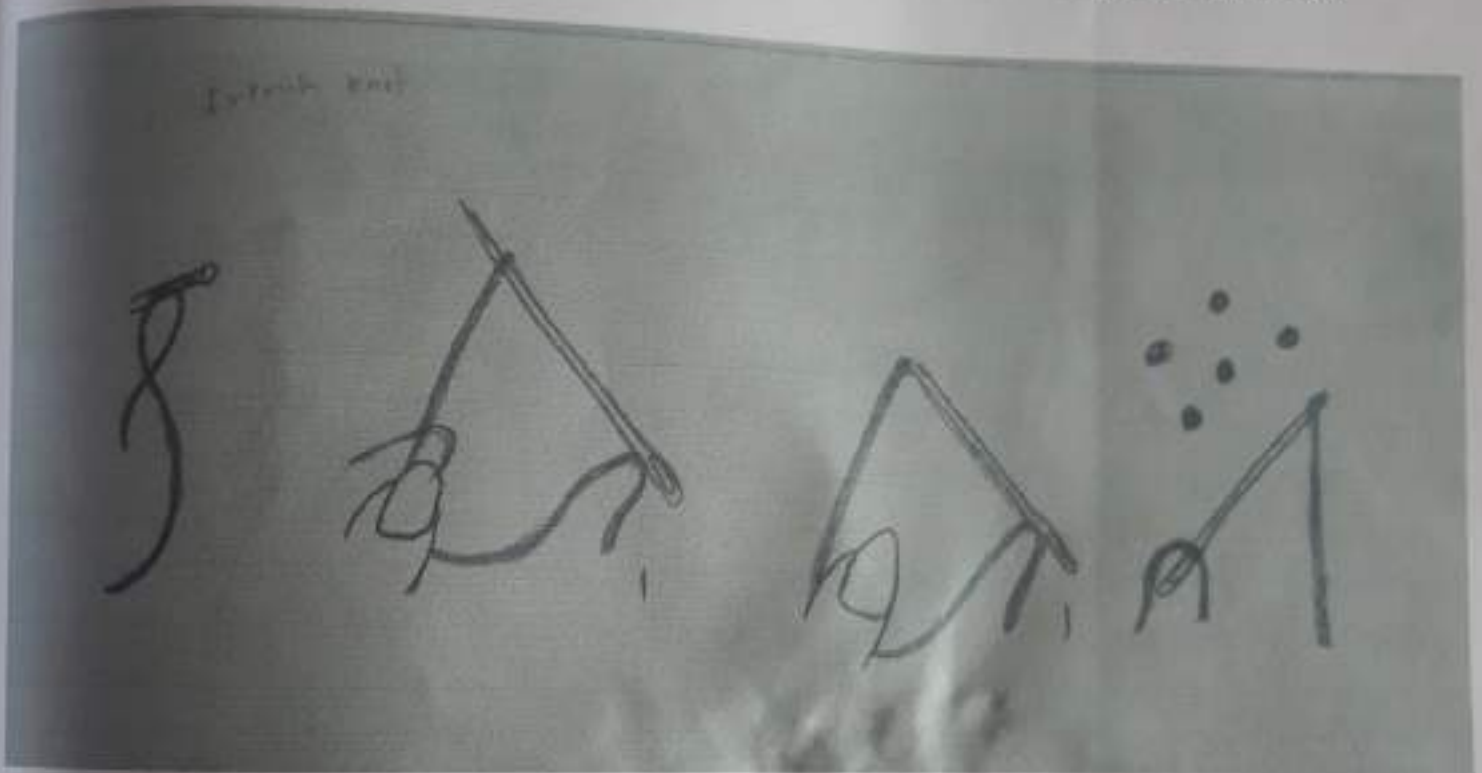
- The needle is taken out upward from below.
- To maintain the shape of the design, take a small stitch in the opposite lines of the design.
- Take out the needle behind the previous stitch and slightly in front of the thread. Go on working from right to left and left to right.
- In a double line design take the first stitch on the upper line and the next on the lower line in front of each other. This gives a cross stitch.
- While embroidering floral designs, take the stitches very close together. This makes the design prominent and attractive.
- If two colours are used for embroidery, take the stitches some gap in between both the lines and if single colour is used for embroidery, take the stitches close together in both the lines.
- A sharp and thin long eye needle of 7 to 9 number should be used for herringbone stitches. Yarn should be selected suitable to the fabric and the design.

FRENCH KNOT



FRENCH KNOT;

Knots are used to embroider floral motifs in the design. They look like rose buds when worked in larger form. Tiny dot types are used to fill a smaller area.



STITCHING PROCEDURE;

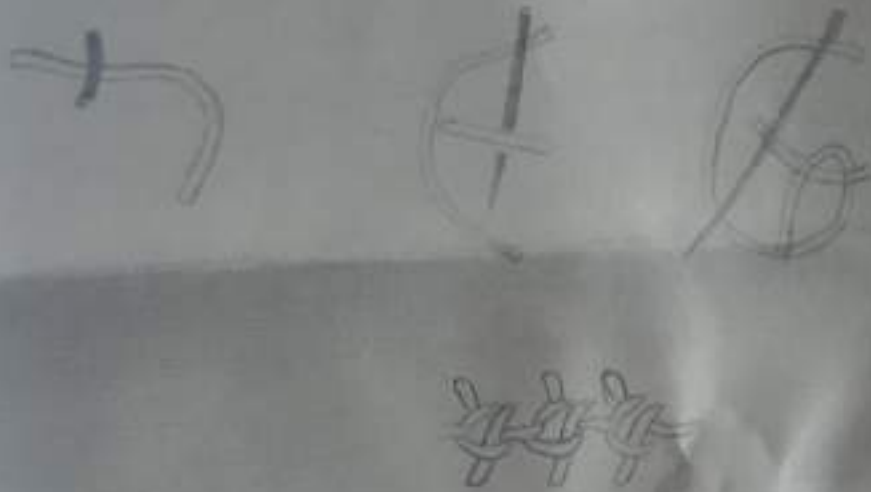
- Bring needle up at 1.
- Holding yarn tight with left hand, wrap yarn around needle twice.
- Gently pull the yarn so the twists are tightened against the needle.
- Carefully insert needle near point 1 and pull through.
- Be sure yarn end is still held tight
- Scatter knots as desired with in design area.
- French knots can be made larger by increasing number of yarn twists around Needle on every next stitch.

DOUBLE KNOT



DOUBLE KNOT;

This is almost similar to the knot stitches except that the knots are worked in continuous manner.



STITICHING PROCEDURE;

- Bring needle up at 1.
- Take a small running stitch at point 2 about 2-3mm from 1 and come up at 3.
- Take the needle under the thread and in between the running stitches thus forming a knot

BULLION KNOT



BULLION KNOT;

When the French knots are worked compactly with the same number of twist on every next stitch, then it called as bullion knot They are also used to fill the areas.



STITCHING PROCEDURE;

- Bring needle up at 1.
- Insert at 2 (slightly close to 1) and exit at 1 again.
- But do not pull yarn through.
- Twist yarn around needle point five to seven times depending on Length of stitch (distance from 1 to 2)
- Then carefully pull needle through both fabric and twists .
- Take care not to distort twists.
- Pull yarn towards point 2, so coil can lie flat.
- Pull working yarn tight and use point of needle to pack yarns in coil together evenly.

Re- inser needle in to point.

LONG & SHORT



LONG AND SHORT STITCH

Filling a leaf with long and short stitches

The leaf can be filled by starting from the wider area (ie the bottom of the leaf) and moving up. another alternative way is to give an outline with the long and short stitch first and then proceed to fill the inside creating a vein in the middle (Checkout the picture below). You can embroidery a single row of long and short stitches along the outline of the design and leave it at that also.

Step 1

Bring up the needle from the bottom left of the design . Stitch the first row with long and short stitches.



Please note that this is the only row that you will be making the long and short stitches. From now on all the stitches will be long till the last row.

Step 2



Start stitching the next row with stitches of the same length . These stitches will fit into the gaps in the previously made stitches. Go on stitching in the direction of the design. Make as many rows as needed to fill the design.



Step 3

When ending the design you can end with only short stitches or long and short stitches depending on the design and area.

SEEDING



SEEDING STITCH;

These small Tiny stitches are used to fill the area to imitate a dotted effect in raised form .



STITCHING PROCEDURE;

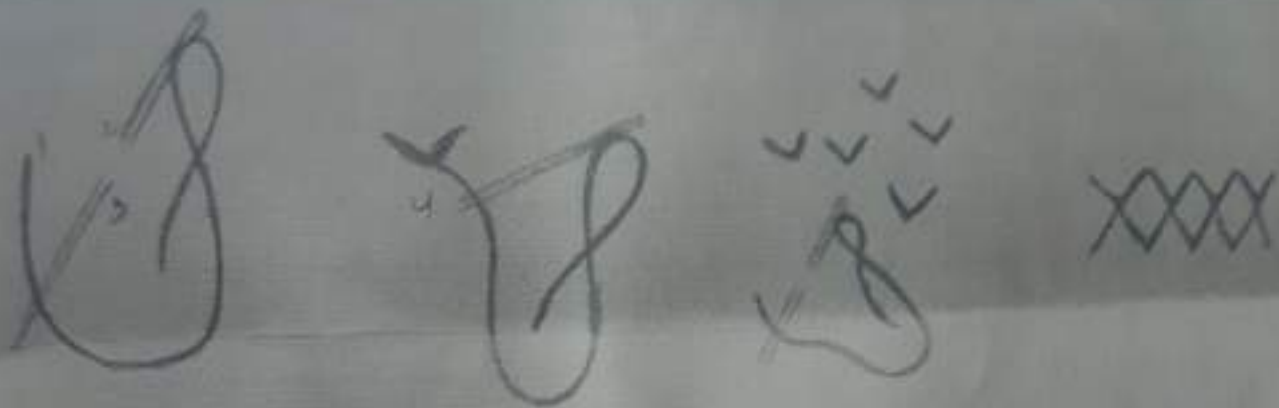
- Bring needle up at 1 and take a tiny stitch down at 2.
- For a heavier ,bring needle up at 3.(In line with 1)
- Take another small stitch at 4(in line with 2)close to the first stitch.

FLY STITCH



FLY STITCH;

These are like small flies with tiny wings spread over the design.



STITCHING PROCEDURE;

- Bring needle up at 1.
- Insert at 2 directly across 1, then angle needle out in 'V' shape at 3.
- Points 1, 2 and 3 should be equidistant.
- Carry the yarn under the needle point and pull through.
- Complete stitch by inserting at 4 over loop of 'v'.
- Work as many fly stitches as necessary to fill desired design area.

SATIN STITCH



SATIN STITCH;

It is solid filling stitch that covers the design area with long straight stitches placed close together. care should be taken to make stitches smooth and at even tension.



STITCHING PROCEDURE;

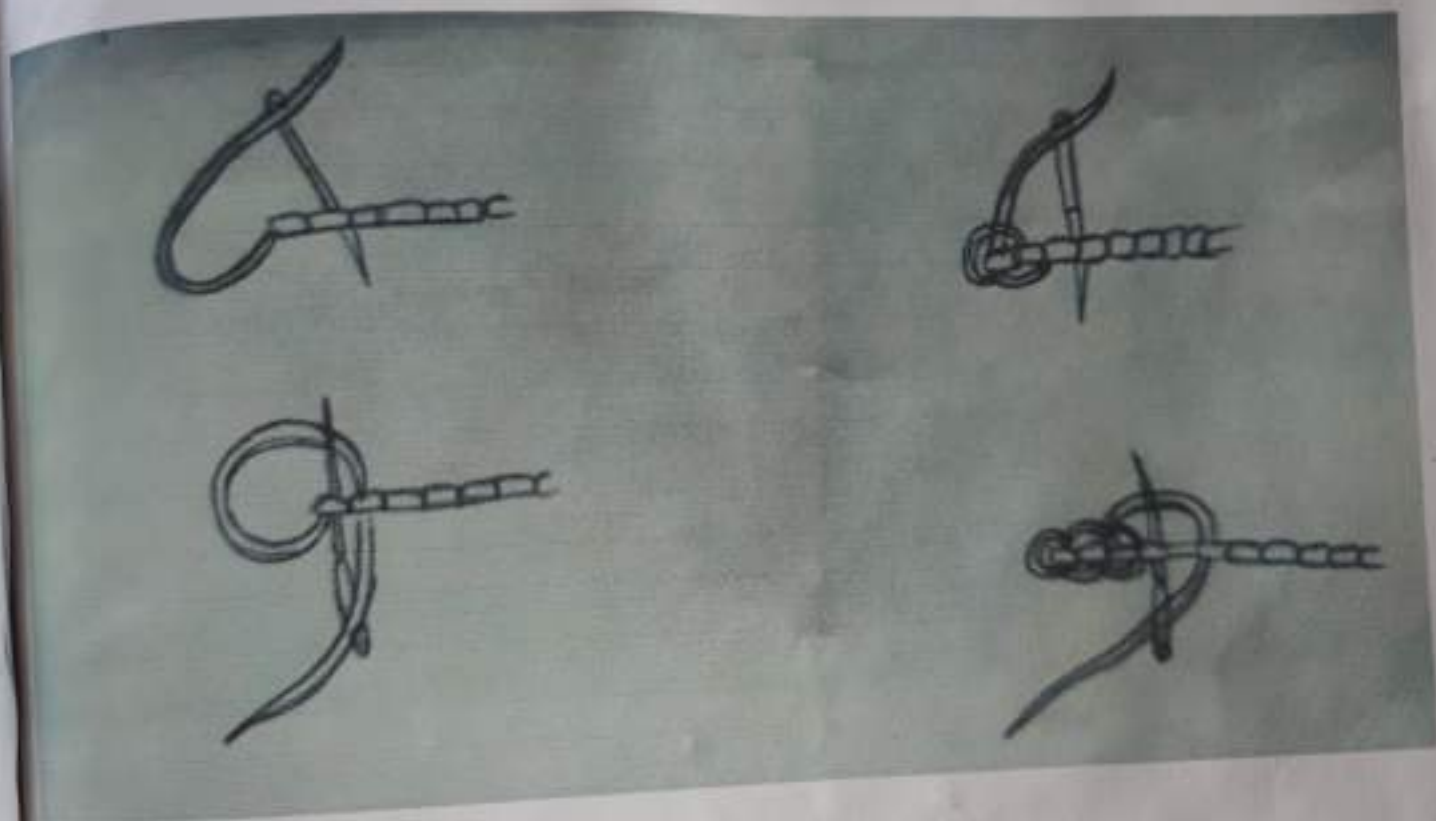
- Work from left to right.
- Bring needle up at 1.
- Insert at 2 directly above.
- Exit at 3 close to point 1.
- Continue until area is filled.

PEKINESE STITCH



PEKINESE STITCH;

It is also known as Chinese stitch, blindstitch, and forbidden stitch. It can be worked as a single line or in lines packed closely together as a filling stitch.



STITCHING PROCEDURE;

- Start with evenly spaced back stitch.
- Bring the thread up at the very end of the row.
- Slide your needle up under the second to last stitch.
- Don't pierce the fabric but work under and on top of the back stitches.
- The thread has formed a small loop below the first back stitch.
- Slide your needle under this stitch from top to bottom, keeping your needle the loop as well and pull the thread through loosely.
- Then insert from top to bottom through the second back stitch.
- Keep looping your thread in this manner till the end of the row.



Course Title :
Extension Education For Rural Development

II - Bsc. Homescience

Submitted to :
Dr. G. Padmini devi

Study project:

Bulletin on : central & state government agricultural apps in India.



Sudmeted by : K. Naga Harshini priya, Y. Hadasa blesi.
(20408011) (20408030)

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Kisan Suvidha

IFFCO

RML

Pusa Krishi

Shetkari

Rythu Barossa

PMFBY

Rashtriya krushi vikaas yojana

Bharat agri

Pradhan Mantri Krishi Sinchai Yojana

Krish-e Nidaan app

Kisan Mitra

A. Padmini 9/3/22

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Extension education for rural development

II - BSc. Home science

Submitted to :
Dr. G. Padmini devi.

STUDY PROJECT

Bulletin on



Central Government Sponsored Schemes for Economical Women Empowerment

G. Padma
3/3/22

Submitted by:

B. Sai Swetha

B. Saiswetha

Sd. Sameena

Sd. Sameena

II. B.Sc. Homescience



Govt. College for Women
(AUTONOMOUS) - GUNTUR, 1942 (Estd.)
College with Potential for Excellence

Course Title :
Extension Education For Rural Development.

II - Bsc. Homescience

Submitted to :
Dr. G. Padmini Devi

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- Reference

G. Srinivas 9/13/22

Study Project

Bulletin on : “Floral or Flower Arrangements”



Participants : K. Vijaya Varshitha – gathering information, editing.
(20408013)

B. Sunila Mercy – gathering information.
(20408004)

K. Tejaswini – gathering information.
(20408009)

FREE ENERGY DEVICE WITH MAGNET

A PROJECT WORK SUBMITTED IN FULLFILLMENT OF REQUIREMENTS FOR DEGREE
OF B.SC (PHYSICS)

BY

BOJJA HARITHA (REG.NO 19302002)

DUDIPALLI ANURADHA (REG.NO19302005)

2021-22

UNDER ESTEEMED SUPERVISION OF N.MANJULA BHARATHI MAM



DEPARTMENT OF PHYSICS & ELECTRONICS
GOVT.COLLEGE FOR WOMEN (AUTONOUOUS)
ACHARYA NAGARJUNA UNIVERSITY
GUNTUR -52204

CERTIFICATE

This to certify that this project work entitled "FREE ENERGY DEVICE WITH MAGNET" is a bonafied record done by HARITHA.B(19302002) .,ANURADHA.D(19302005) submitted in the fulfilment of final semester of the B.SC(PHYSICS),during the year 2021-2022 under the esteemed supervision of N.MANJULA BHARATHI MAM,GOVT.COLLEGE FOR WOMEN,GUNTUR.

Project Guide
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MAM

Head of the Department

DEPARTMENT OF PHYSICS & ELECTRONICS

GOVT. COLLEGE FOR WOMEN (A)

ACHARYA NAGARJUNA UNIVERSITY

GUNTUR-522001

JUNE-2022

DECLARATION

I am B.HARITHA., D.ANURADHA hereby declare that the project work entitled "FREE ENERGY DEVICE WITH MAGNET" submitted by us is original and it is not submitted in full or part of any course or any other institute or university.

Place: Guntur

(B.HARITHA) B. Haritha

(D.ANURADHA) D. Anuradha.

Date : june 2022

ACKNOWLEDGMENTS

I feel it a great pleasure to express my immense gratitude to my esteemed guide N.MANJULA BHARATHI MAM, for standing by side all through the implementation and valuable suggestions of the project. She is able to technical guidance and exited have contributed to successful completion of the project.

I sincerely thanks to prof, Head of the Department of Physics & Electronics, Govt. college for women for awarding us this project work.

I also express my sincere thank to the Technical staff of Departments of Physics & Electronics, Govt. college for women ,for providing excellent facilities for the project work.

ABSTRACT

A Permanent magnet, pulsed dc electromagnet motor generator for the production of electric power. The source or input for electric power is the magnetic flux of neodymium permanent magnets. The device consists of a motor, a generator, commutation and a circuit. The motor consists of permanent magnets fixed to a rotor. The stator employs pulsed dc electromagnets. The permanent magnets and the electromagnets are arranged around the rotor and stator are opposing each other.

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1. INTRODUCTION

2 OBJECTIVE

- *Magnets

- *DC motor

3. CIRCUIT DIAGRAM

4. METHODS

- *MECHANICAL METHOD

- *ELECTRICAL METHOD

5. WORKING OF THE CIRCUIT

- * DC motors

- * Magnets

- * wheel

6. GENERAL CHARACTERISTICS

7. APPLICATIONS

8 .ADVANTAGES

9 .DISADVANTAGES

10.RESULT

11.CONCLUSION

INTRODUCTION

*Energy generators-Here, it is a machine which generates electricity with the help of fossil fuel, hydel energy, solar energy, tidal energy, wind energy, or Geothermal energy. For example thermal power plant, diesel generator, hydel power plant, etc.

*Free energy generator- It is SELF POWERED system which generates electricity, or we can say it recycles electricity fed to it, for itself and outside the system, continuously. We will continue further in next slide.

*It is a device that converts motive power (mechanical energy) into electrical power for use in external circuit.

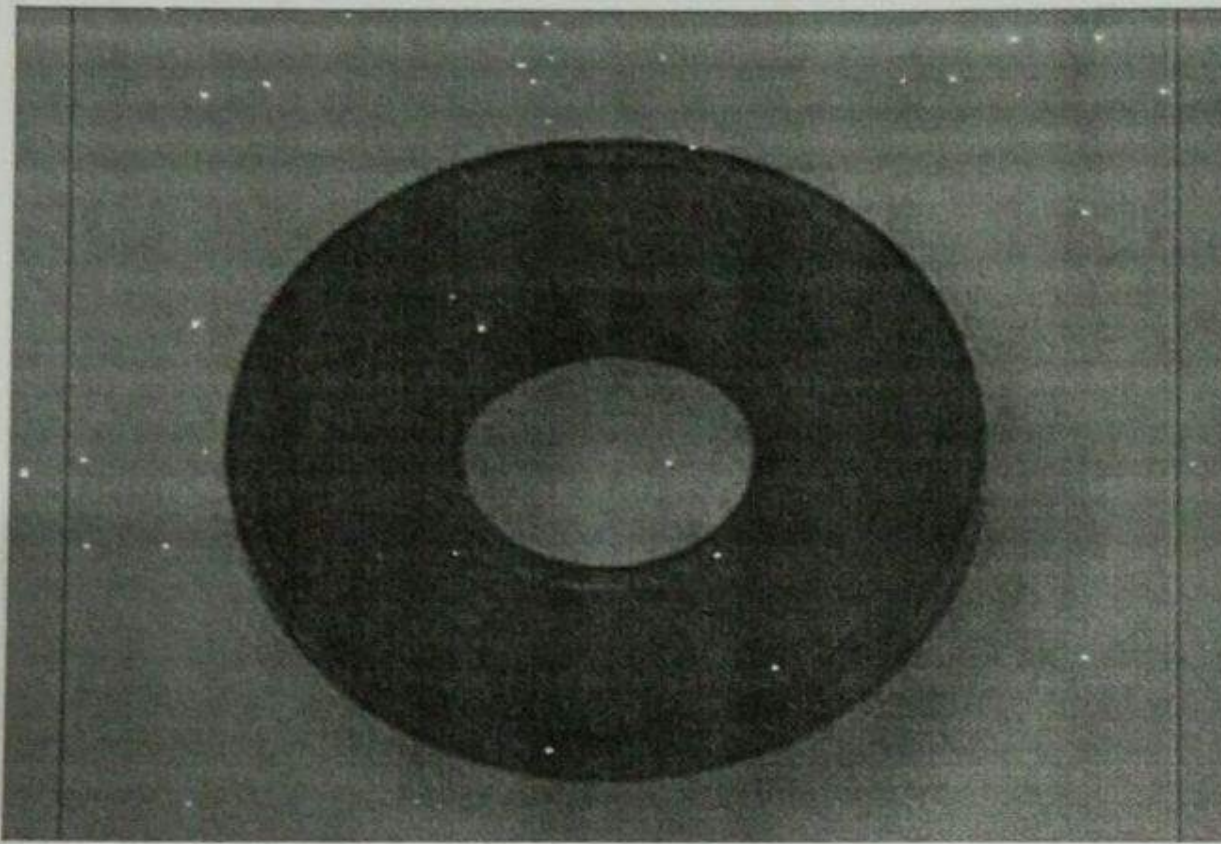
*Source of mechanical energy includes steam turbines, gas turbines, water turbines, internal combustion engines, wind turbines and even hand cranks.

OBJECTIVE

PROJECT DESCRIPTION

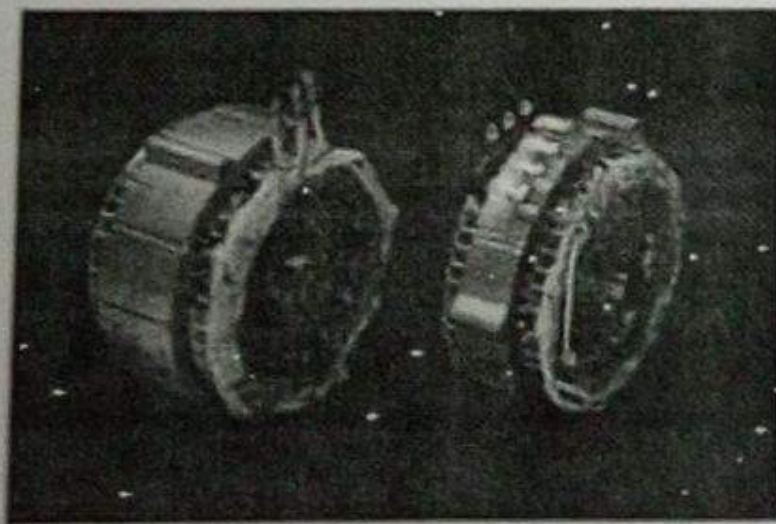
*The concept of free energy generator can be used for generating electricity without using any fossil fuel, and any other mean, which means to generate free electricity.

*MAGNET



A Free energy magnet motor uses its neutral properties such as attraction and repulsion of the magnet poles to create a perpetual motion which can be harnessed to do a useful work.

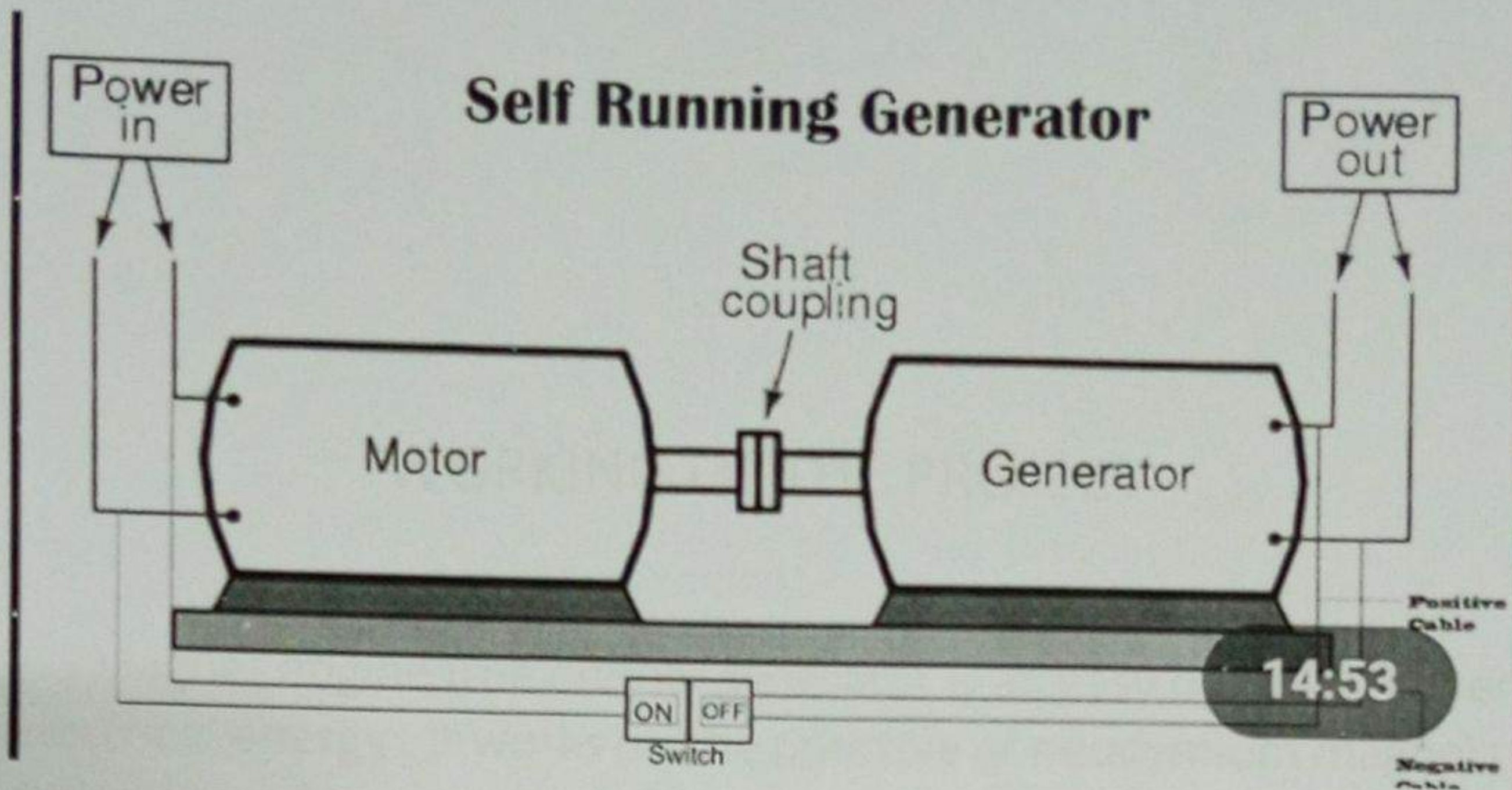
*DC MOTOR



*A DC motor or direct current motor converts electrical energy into mechanical energy .

*A Direct current (DC) motor is a fairly simple electric motor that uses electricity and magnetic field to produce torque ,which turns the rotor and hence give mechanical.

CIRCUIT DIAGRAM



MECHANICAL METHOD

In this method, an alternator is coupled with an induction motor, which is powered by an external source of energy for initiation of the process. Once the process has been started, electricity generated is switched as a supply of the motor which is running the alternator, which makes them mutually powered or self-powered.

ELECTRICAL METHOD

In this method, some basic electronic components like inductor, capacitors, resistors, MOSFET, etc. are used. An external source initiates the process. After initialization, it powers itself.

WORKING OF THE PROJECT

Magnet engine free energy generator is an easy device to generate electrical energy . It works on the principle of neodymium magnets . In a simple motor, magnetic field is created by the electric coils generally Cu,Al coils . These motors continuously need electrical supply to produce magnetic field.

Permanent-magnet generators are simple in that they require no system for the provision of field current .They are highly reliable.They do not,however,contain any means for controlling the output voltage.

General characteristics

- * Smooth torque
- * Low acoustic noise
- * Fast dynamic response (both torque and speed)
- * Expensive
- * Compact
- * High efficiency .

Applications

- * industrial drives, e.g., pumps, fans, blowers, mills, hoists, handling systems
- * elevators and escalators, people movers, light railways and streetcars (trams), electric road vehicles, aircraft flight control surface actuation.

Advantages

- * It is very eco-friendly.
- * It is very economical for domestic purpose.
- * It can get one rid off power supply companies for one time investment.

Disadvantages

- * The cost of a permanent magnets is very high.
- * Corrosion of magnets and possible demagnetization.

RESULT -

It is eco-friendly and economical. Process needs external energy for initialization, only. Process follows effluence nature. It can be used for domestic purpose only. Needs improvement.

CONCLUSION-

- * Here and after, one can easily conclude that this iDEA is very revolutionary, innovative and productive.
- * For better scope it needs much more development, instead of what has been done to it.
- * IT IS STILL UNDER DEVELOPMENT.....



SOLAR PANEL

A PROJECT WORK SUBMITTED IN FULLFILLMENT
OF REQUIREMENTS FOR DEGREE OF B.SC
(~~ELECTRONICS~~) PHYSICS

BY

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(REG.NO 19301022)

2021-22

UNDER ESTEEMED SUPERVISION OF N.MANJULA
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JUNE-2022

DECLARATION

I am M.Divya hereby declare that the project work entitled

SOLAR PANEL submitted by us is original and it is not submitted in full or part of any course or any other institute or university.

M. Divya.

Place:Guntur
(M.Divya)

Date :june 2022

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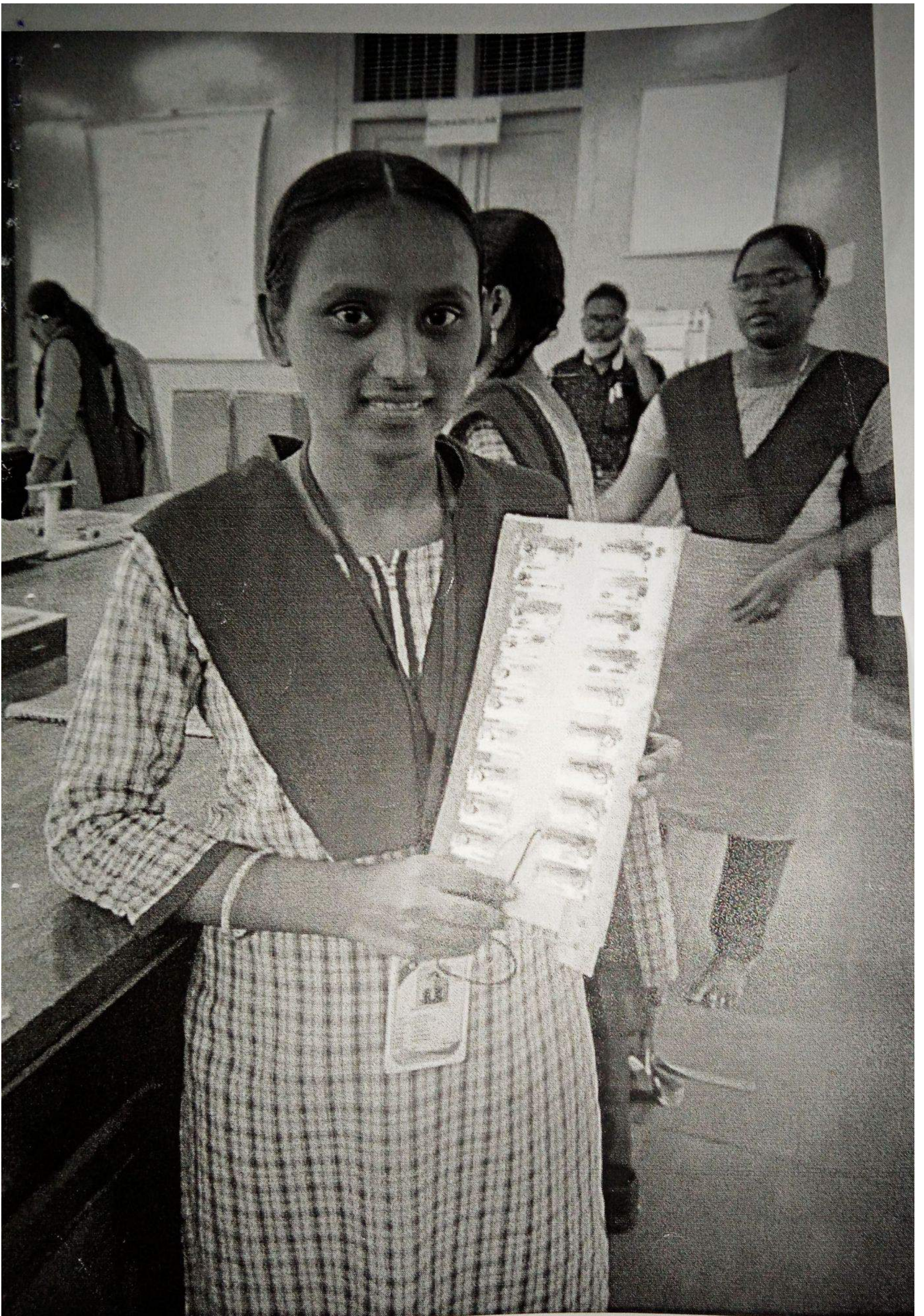
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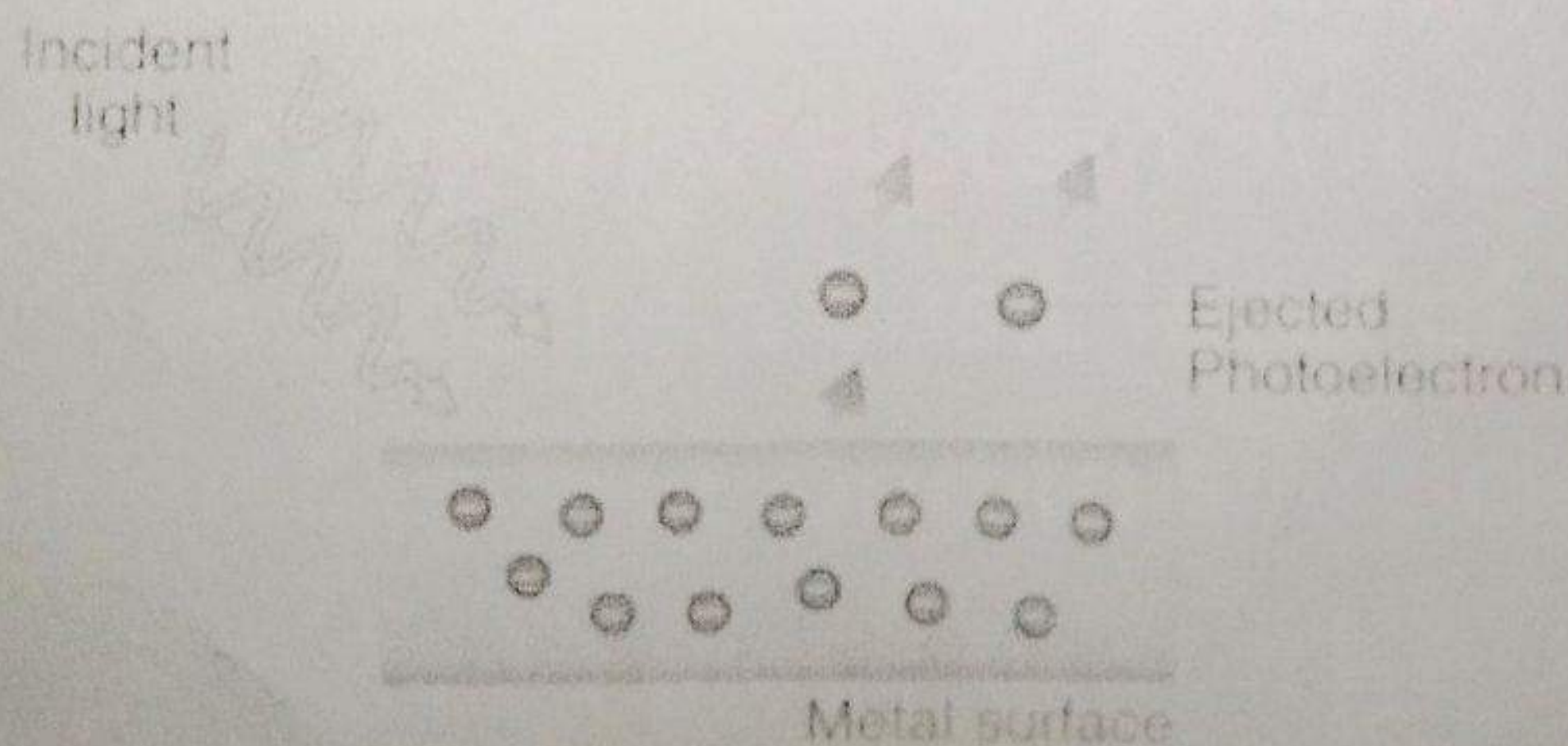
7 CONCLUSION



Photoelectric Effect

The photoelectric effect is a phenomenon in which electrons are ejected from the surface of a metal when light is incident on it. These ejected electrons are called **photoelectrons**. It is important to note that the emission of photoelectrons and the kinetic energy of the ejected photoelectrons is dependent on the frequency of the light that is incident on the metal's surface. The process through which photoelectrons are ejected from the surface of the metal due to the action of light is commonly referred to as **photoemission**.

The photoelectric effect occurs because the electrons at the surface of the metal tend to absorb energy from the incident light and use it to overcome the attractive forces that bind them to the metallic nuclei. An illustration detailing the emission of photoelectrons as a result of the photoelectric effect is provided below.



Introduction to Solar Electricity



Solar electricity does not have to be complicated. However, becoming a PV system owner does require a basic level of understanding, and this article is a good place to start.

Abstract

Energy comes in different forms. Light is a form of energy. So is heat. So is electricity. Often, one form of energy can be turned into another. This fact is very important because it explains how we get electricity, which we use in so many ways. Electricity is used to light streets and buildings, to run computers and TVs, and to run many other machines and appliances at home, at school, and at work. One way to get electricity is to burn fossil fuels. This method for making electricity is popular. But it has some problems. Our planet has only a limited supply of oil and coal. In this method details about Endless Energy, Solar Cells Galore, Energy from Sunshine, Understanding Electricity.

Introduction:

The heat then makes water boil and turn into steam. The steam runs a machine called a turbine that produces electricity[1-6]. Often, this electricity then goes into a public power system that sends it out, through wires, to homes[7-11], schools, and businesses over a wide area. This method for making electricity is popular[12-20]. But it has some problems. Our planet has only a limited supply of oil and coal. Also, they give off gases when they are burned. These gases may make the air dirty[21-29], or polluted, and some of them may change Earth's climate.

Another way to make electricity uses sunlight. Sunshine is free and never gets used up. Also, there is a lot of it[30-36]. The sunlight that hits the Earth in an hour has more energy than the people of the world use in a year. A little device called a solar cell can make electricity right from sunlight ("solar" means having to do with the Sun). A solar cell doesn't give off any gases. It doesn't even make any noise. A solar panel is a group of solar cells that work together[37-45].

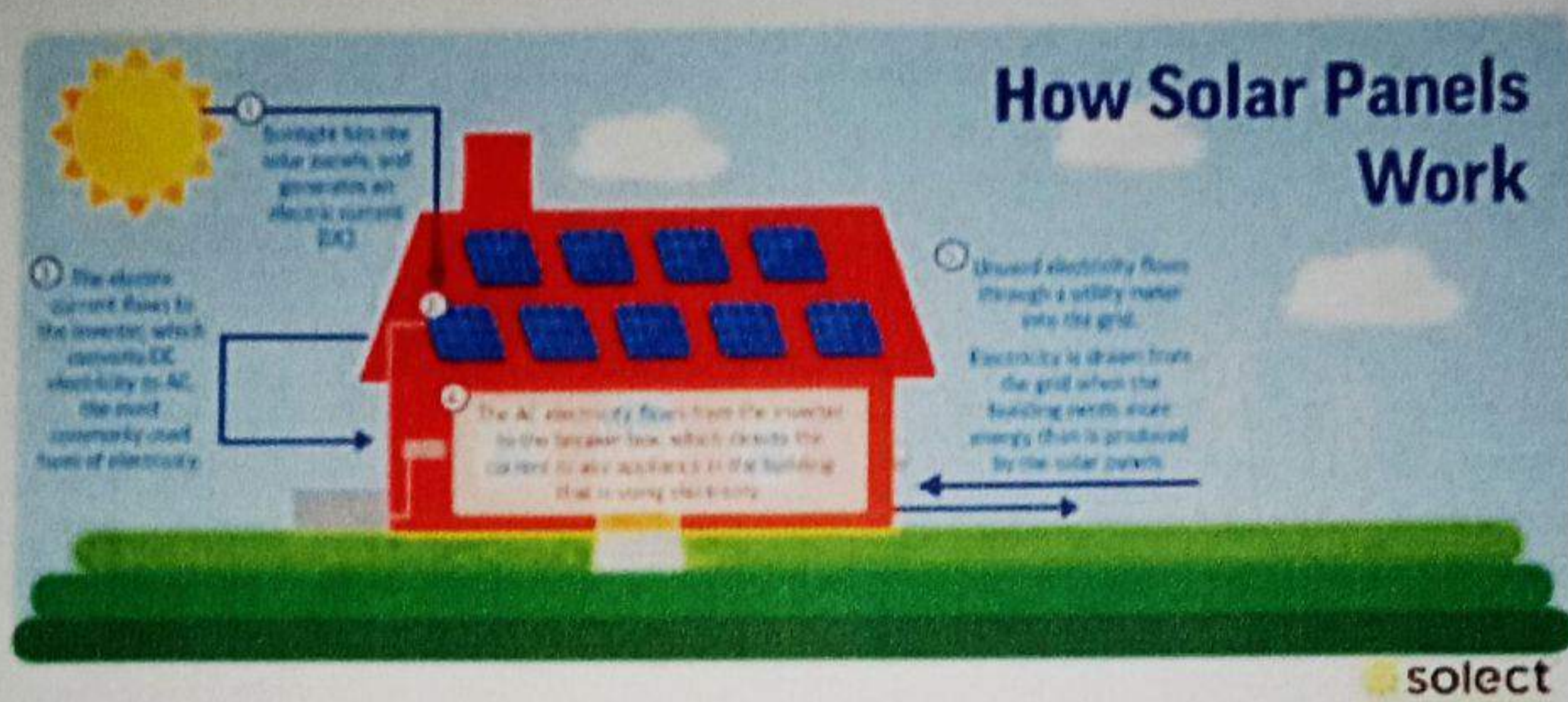
The heat then makes water boil and turn into steam. The steam runs a machine called a turbine that produces electricity[46-50]. Often, this electricity then goes into a public power system that sends it out, through wires, to homes, schools, and businesses over a wide area. This method for making electricity is popular. Also, there is a lot of it. The sunlight that hits the Earth in an hour has more energy than the people of the world use in a year. A little device called a solar cell can make electricity right from sunlight ("solar" means having to do with the Sun).

Energy from solar cells

The Sun constantly gives off energy. The energy is carried through space as electromagnetic radiation. There are several types of electromagnetic radiation. Light is one

Working of Solar Panel

Solar panels receive the sunlight as a source of energy to produce electricity or heat. A photovoltaic module is usually a connected combination of photovoltaic solar cells.



<https://solect.com/the-science-of-solar-how-solar-panels-work/>

Photovoltaic modules constitute the photovoltaic array of a photovoltaic system that generates and supplies solar electricity in many applications. Each module is rated under standard test conditions by its DC output power and typically ranges from 100 to 365 watts.

type. Radio waves are another. Electromagnetic radiation travels like waves in water. Like water waves, it is a series of ups and downs. One way various types of electromagnetic waves differ is in their wavelength. People often think of electricity as something that flows. In fact, that is pretty much right. Electricity is a stream of tiny particles called electrons. The stream is called an electric current. There are two kinds of current. One is DC. This is direct current. Batteries and solar cells make DC. The other kind of current is AC. This is alternating current. It reverses direction many times a second.

Solar panels

Solar panels for buildings are no different from other panels. They must be able to receive enough sunlight to be useful. Solar panels come in various colors and designs. They may be put on a wall or roof and blend right in, so you don't even notice them. Roof shingles and tiles can be made using thin-film panels. Usually solar panels and a few wires cannot by themselves supply electricity to a building. More equipment is needed. Solar cells make DC electricity. This is fine for some electronic devices. But home appliances and lights usually run on AC. Houses are generally wired for AC. To change the DC to AC, a device called an inverter is needed.

Uses of solar panels

Solar panels have a lot of strong points. The silicon used in most of them is a very common material. Sand is made up mostly of silicon. Solar panels are reliable. The "fuel" they use—sunshine—is free. It is a renewable resource that will last nearly forever. Scientists expect the Sun to keep shining for billions of years. Also, solar panels can make electricity right at the place where it is used. This removes the need for wires or cables to carry electricity from a distant power plant.

When they are used, solar panels have almost no effect on the environment. They are quiet. They don't release dirty or harmful gases into the air. They don't cause water pollution. They don't create hazardous waste. Cleaner Power Plants Power plants using solar panels have several advantages. They can usually be built more quickly than oil, coal, or nuclear power plants. While sunshine is free, solar panels are not. Getting a solar system for a building costs money. In many cases today, the total cost may turn out to be so high that it's cheaper to get power from the grid. This may change in the future, though, as the cost of electricity made by power plants using oil goes up. Also, as more solar panels are used, the price of the panels may come down.

Making methods of solar cells

Scientists continue to hunt for ways to make better cells. They are trying new materials, such as plastics. They are also looking for ways solar cells and panels can be more useful. For instance, they have come up with a "photocapacitor." This is a solar device that both makes electricity and stores it for later use. Experimental models were not good for practical use. But if the device can be improved, it might someday eliminate the need to have batteries to store solar electricity, at least in some cases. Sun Plus Wind When the Sun doesn't shine,

solar panels can't make electricity. But there is a renewable energy source that can: the wind. Some people have electric power systems that combine solar panels with a wind turbine. Such a system is called a hybrid. Of course, the wind doesn't always blow at night. So if the system has no link with the grid, it will still need batteries for electricity on windless nights.

Conclusion

Thin film of the solar cells can be put into cloth. The larger the area of the solar cells, the more current they can make. If they were used in curtains, thin-film solar cells could provide a very useful amount of electricity. Ways of getting lots of sunlight to solar cells are being studied. One proposed concentrator could be used on windows. It involves putting special dyes into glass or plastic. Solar cells are put at the edges of the sheet of glass or plastic. The dyes let some light through the window. They also capture some light energy, which flows to the cells.

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WIND POWER ENERGY

A PROJECT WORK SUBMITTED IN FULLFILLMENT
OF REQUIREMENTS FOR DEGREE OF B.SC (PHYSICS)
(ELECTRONICS)

By.

(REG.NO 19301026)

Naipamu Sowmya

2021-22

UNDER ESTEEMED SUPERVISION OF N.Manjala
Barathi ma'am



PS

DEPARTMENT OF PHYSICS & ELECTRONICS
GOVT.COLLEGE FOR WOMEN (AUTONOUMOUS)
ACHARYA NAGARJUNA UNIVERSITY
GUNTUR -52204

CERTIFICATE

This to certify that this project work entitled "WIND POWER ENERGY" is a bonafied record done by Sowmya.N(19301026) submitted in the fulfilment of final semester of the B.SC(PHYSICS), during the year 2021-2022 under the esteemed supervision of N.MANJULA BHARATHI GOVT.COLLEGE FOR WOMEN,GUNTUR.

N. M. Bharathi

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DEPATMENT OF PHYSICS & ELECTRONICS

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ACHARYA NAGARJUNA UNIVERSITY

GUNTUR-522001

GUNTUR-522001

JUNE-2022

DECLARATION

I am Sowmya.N hereby declare that the project work entitled "WIND POWER ENERGY "submitted by us is original and it is not submitted in full or part of any course or any other institute or university.

N. Sowmya

Place:Guntur

Naipamu Sowmya

Date :june 2022

Abstract

From its rebirth in the early 1980s, the rate of development of wind energy has been dramatic. Today, other than hydropower, it is the most important of the renewable sources of power. The UK Government and the EU Commission have adopted targets for renewable energy generation of 10 and 12% of consumption, respectively. Much of this, by necessity, must be met by wind energy. The US Department of Energy has set a goal of 6% of electricity supply from wind energy by 2020. For this potential to be fully realized, several aspects, related to public acceptance, and technical issues, related to the expected increase in penetration on the electricity network and the current drive towards larger wind turbines, need to be resolved. Nevertheless, these challenges will be met and wind energy will, very likely, become increasingly important over the next two decades. An overview of the technology is presented.

CONTENTS

1 INTRODUCTION

2 DESIGN OVERVIEW

1.1 Circuit description

1.2 Construction and important

3 COMPONENTS OF THE CIRCUIT

1.1 Led 's.....

1.2 Cardboards

1.3 Wire

1.4 Fans

1.5 DC Motor

4 ADVANTAGES

5 APPLICATION

6 RESULT

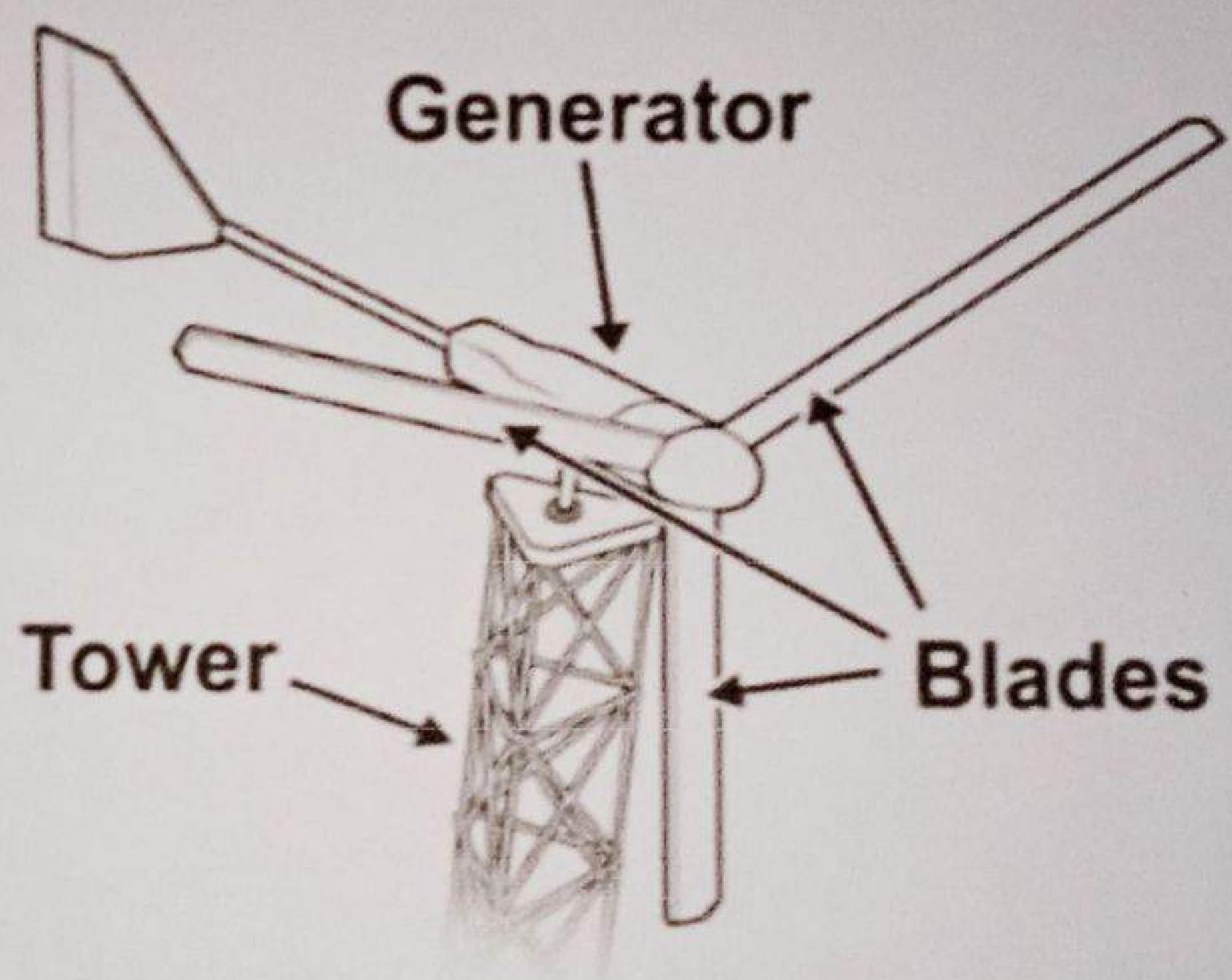
7 CONCLUSION

WIND POWER ENERGY

INTRODUCTION : For thousands of years, people have been using wind energy to do work-form travelling around the world on sailboat to milling grain using windmills. Today, wind is more common as a renewable energy source through the use of wind turbines.



Wind turbines have three basic parts tower, blades and generator. These parts work together convert to energy from the wind to electricity. When the wind blows, it pushes against the blades, causing them to spin. As the blades spin, they cause generator to turn. The turning of the generator generates electricity, which can be used to to light a light bulb Or play music on your stereo.



OBJECTIVES :

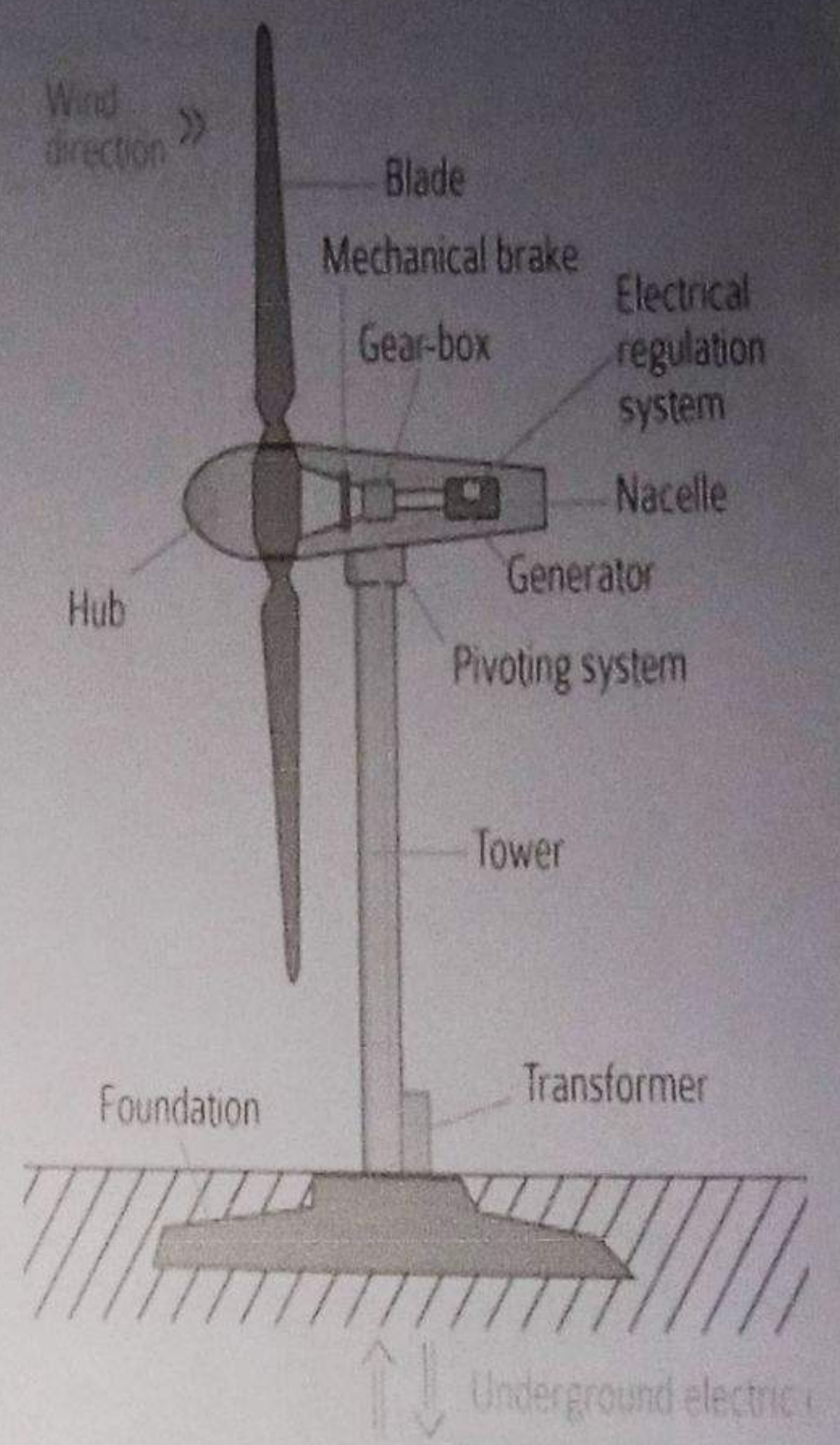
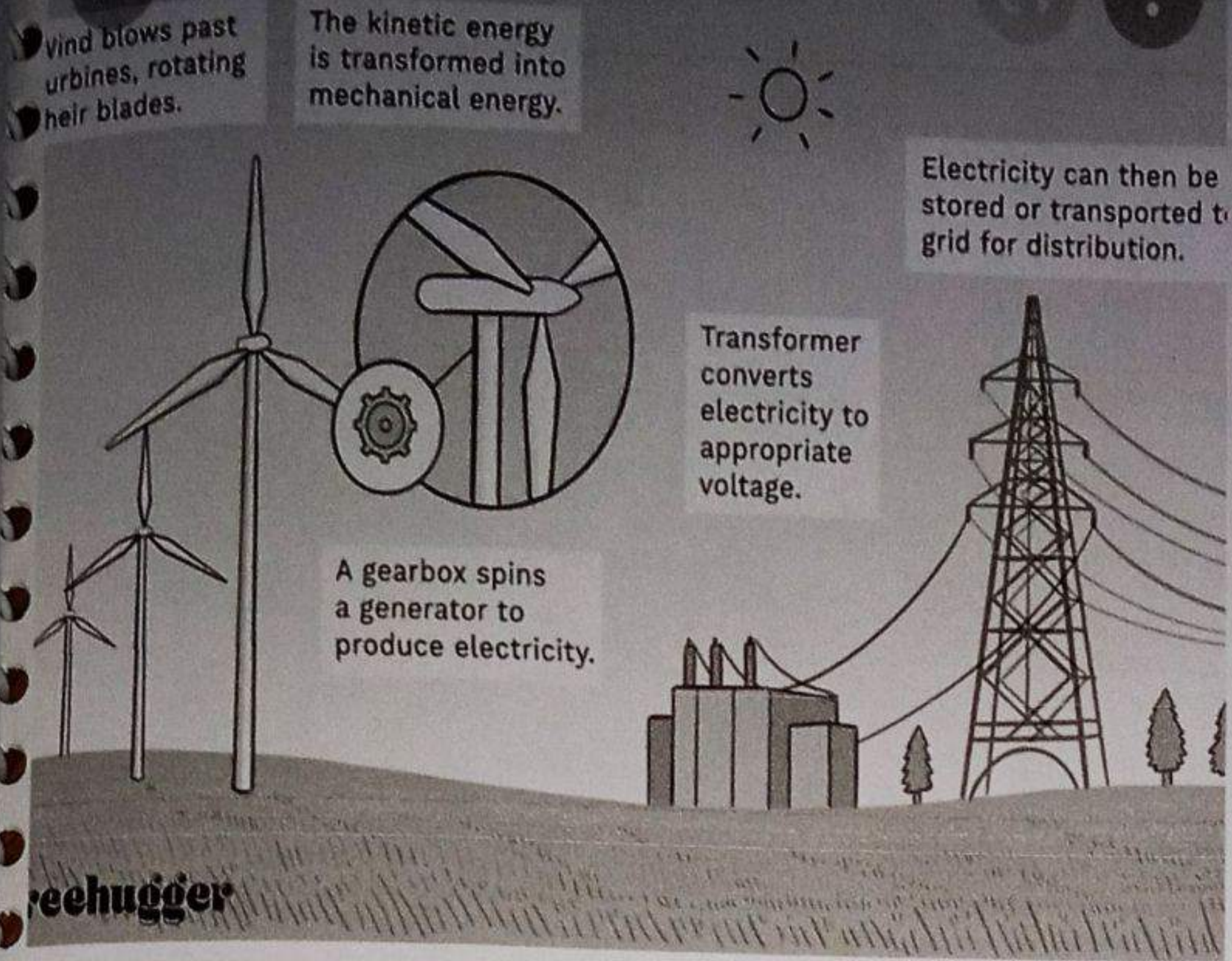
- Explore how wind turbines can be used to generate electricity
- Use electricity generated by a wind turbine to light an LED.
- Build and understand basic circuits.
- Verify that energy is transferred by electric current.

SENSORS AND EQUIPMENT :

This experiment features the following sensors and equipment. Additional equipment may be required.

HOW DOES WIND TURBINES WORK?

How Does Wind Energy Work?



There is an air turbines of large blades attached to the top of

Supporting tower of sufficient height. When wind strikes on the turbine blades, the turbine rotates due to the design and alignment of the rotator blade. The shaft on the turbine is coupled with an electronic generator. The

Out put of the generator is collected through electric power cables.

WIND ENERGY :

- Wind energy can be converted into mechanical or electrical energy, from the kinetic energy with in the wind wind energy is indefinitely sustainable energy source and produce to pollutants
- Early uses of wind energy : wind mill that were used to grind grains.
- Modern uses of wind energy : Generation of electricity and water pumping.



WORKING OF WIND TURBINES :

When the wind strikes the rotor blades. The blades start rotating. The turbine rotor is connected to high speed gearbox. The gearbox transforms the rotor rotation from low speed to high speed. The high speed shaft from the generator

box is coupled with the rotor of the generator runs at a high speed. An exciter is needed to give the required excitation of the magnetic coil of the generator field system so that it can generate the required electricity. The generated voltage at output terminals from the alternator is proportional to both speed and renewable hydrogen. Hence to maintain uniformity of the output power from the alternator. Excitation must be controlled according to the availability of natural wind power. The excited current is controlled by a turbine controller which sense then wind speed. Then output voltage of electrical generator is given to a rectifier where the alternator output gets rectified DC output is given to line converter unit to convert it into stabilized AC output which is ultimately fed to either electrical transmission network

COMPONENTS : wind turbines convert wind energy to electrical energy for distribution. Conventional horizontal axis turbines can be divided into three

- The rotor, which is approximately 20% of the wind turbines cost, includes the blades for converting wind energy to low speed rotational energy.
- The generator, which is approximately 34% of the wind turbines cost, includes the electrical generator, the control electronic, and most likely a gearbox, adjustable- speed drive, continuously variable transmission component for converting the low – speed incoming rotation to high speed rotation suitable for generating electricity.
- The surrounding structure, which is approximately 15% of the wind turbines cost, includes the tower and rotor yaw mechanism.

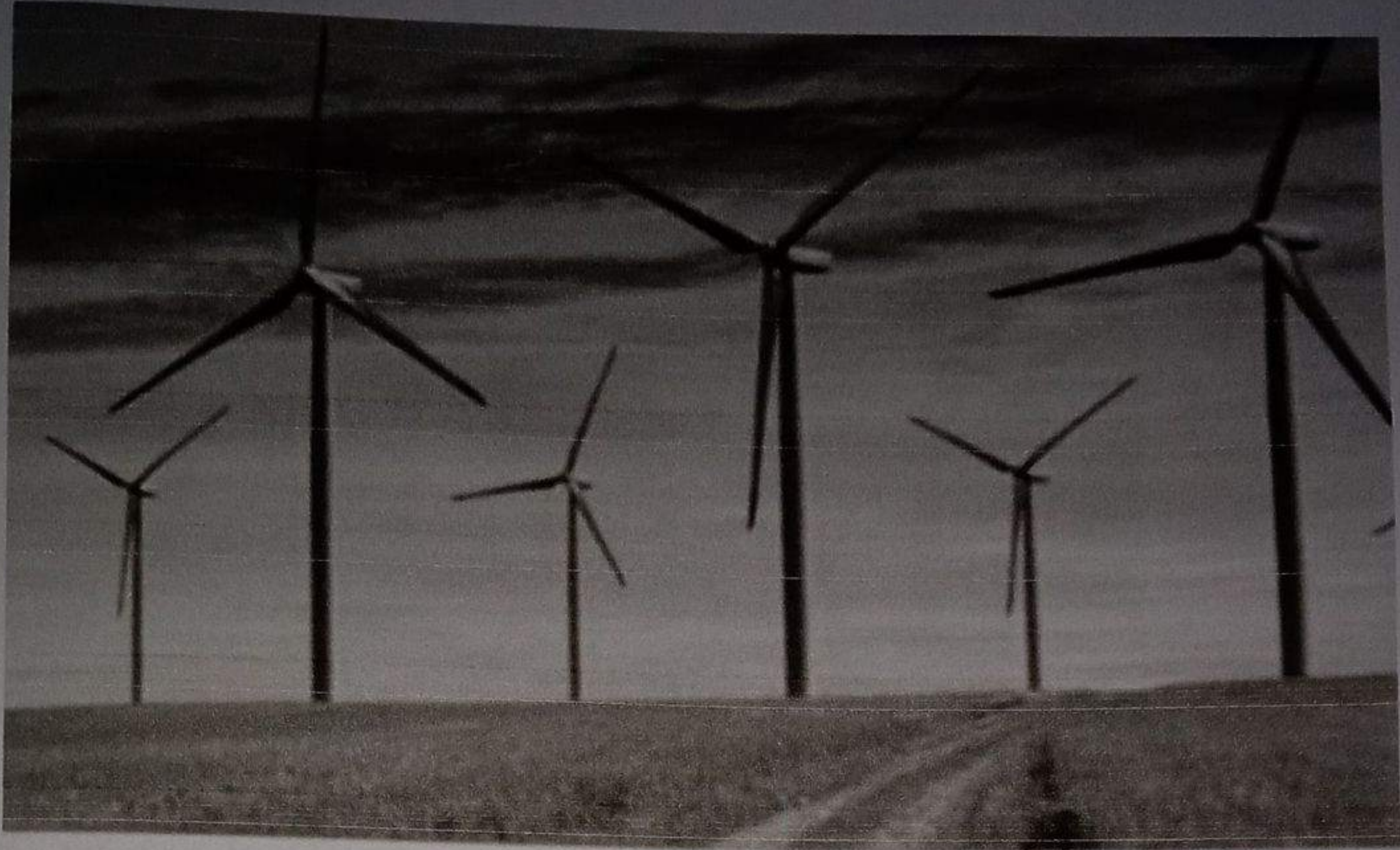
An extra unit is used to give the power to inter am Auxillaries of wind turbines, this is called Internal supply unit there are two control mechanism attached to a modern big wind turbines.

- Controlling the orientation of turbine blades
- Controlling the orientation of the turbine face.

HOW IS WIND TURBINE ENERGY IS MEASURED :

Kilowatt hours. Wind energy is measured in kilowatt hours (kWh) or megawatt hours (MWh), plus the time period

E. g. Per year and per hour

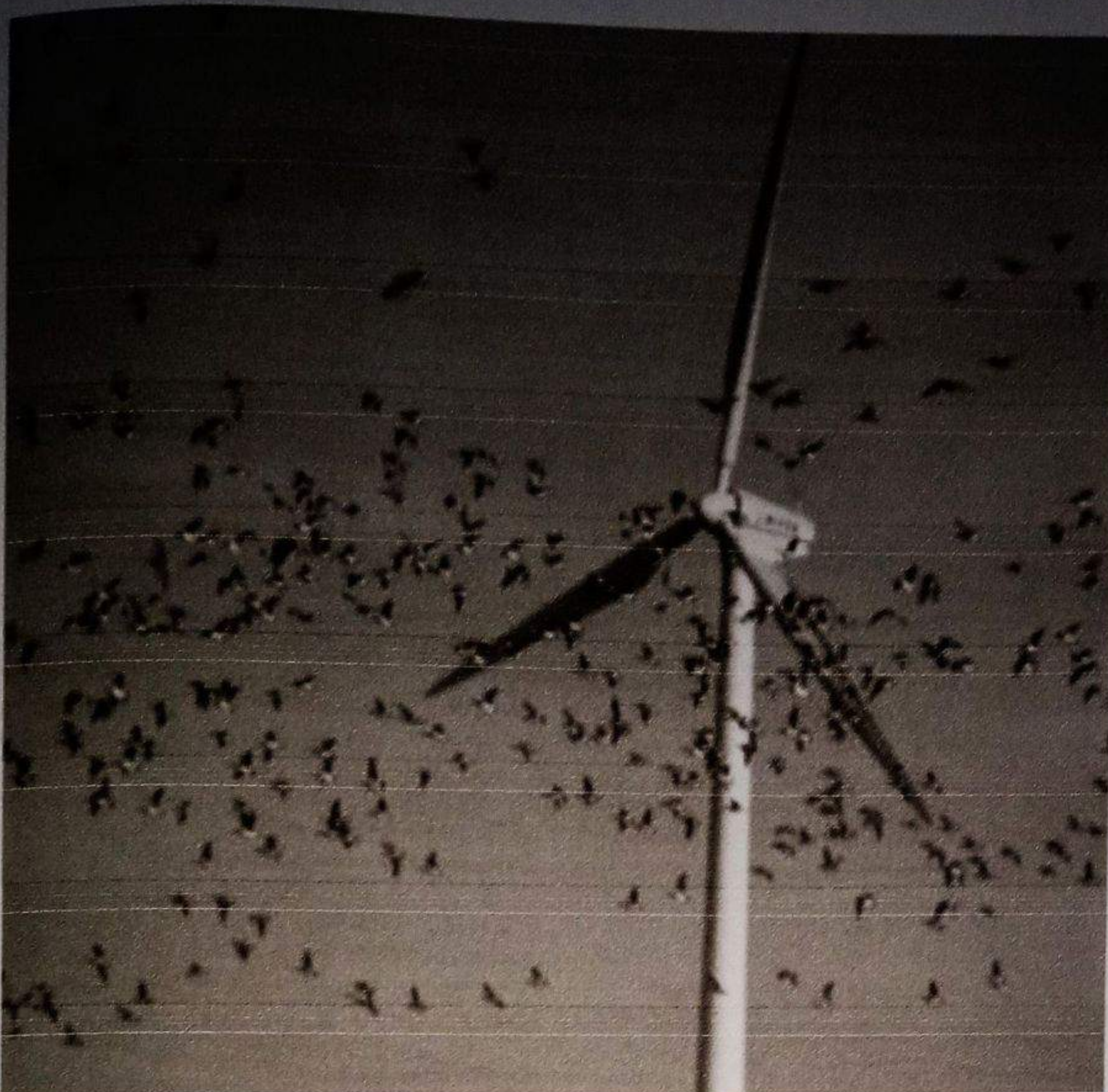


ADVANTAGES OF WIND POWER :

- If it is windy day there is a lot of power
- Does not pollute at all
- Does not produce greenhouse gasses
- Has created jobs for many local people
- It is one of the cheapest energy source today

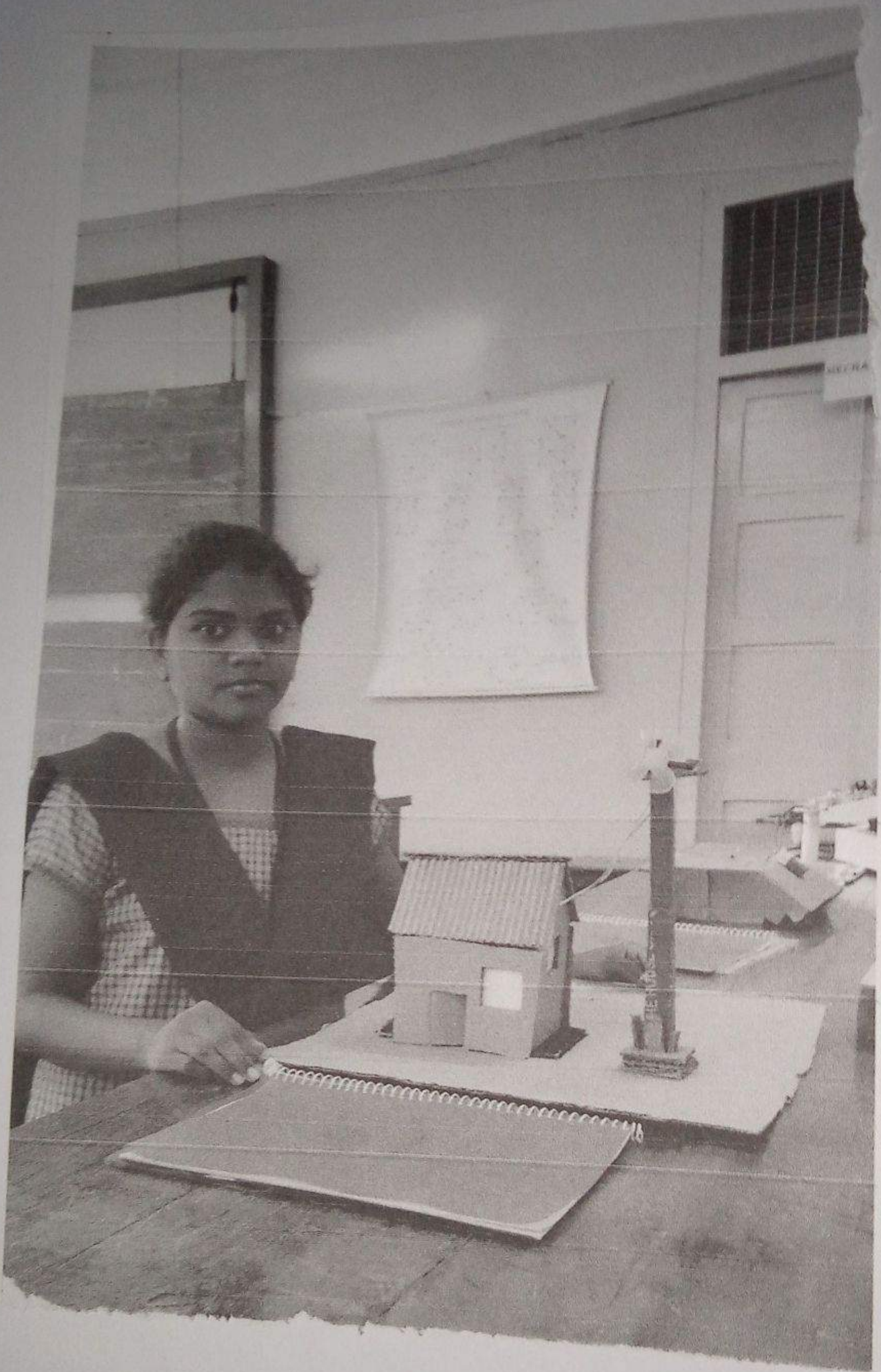
DISADVANTAGE :

- Birds – a series obstacles
- Noise Disturbance
- Cost if wind turbines
- Threat to wildlife
- Wimd never be predicted
- Suited to particular region
- Visual impact



CONCLUSION :

- Wind energy- use of wind power to generate electricity from wind to turbines
- Gained increasing use since 1970
- Preferred because it is renewable, cheap, and friendly to the environment
- However its costly and not reliable dur to Intermittency
- Wind energy is the future source of energy for the world.



TOUCH SENSOR AND RAIN DETECTOR

A PROJECT WORK SUBMITTED IN FULLFILLMENT OF
REQUIREMENTS FOR DEGREE OF B.SC (PHYSICS)

BY

SANAM S S VYSHNAVI

(REG.NO 19301038)

2021 - 22

UNDER ESTEEMED SUPERVISION OF N. MANJULA
BHARATHI MA'AM



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CERTIFICATE

This to certify that this project work entitled " TOUCH SENSOR AND RAIN DETECTOR" is a bonafied record done by **Sanam s s vyshnavi (19301038)** submitted in the fulfilment of final semester of the **B.SC(PHYSICS)**, during the year 2021-2022 under the esteemed supervision of **N. MANJULA BHARATHI MA'AM, GOVT.COLLEGE FOR WOMEN, GUNTUR.**

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GUNTUR-522001

JUNE-2022

DECLARATION

I am Sanam s s vyshnavi hereby declare that the project work entitled

“TOUCH SENSOR AND RAIN DETECTOR” submitted me is original and it is not submitted in full or part of any course or any other institute or university.

Place:Guntur

(S s s vyshnavi)

Date :june 2022

ACKNOWLEDGMENTS

I feel it a great pleasure to express my immense gratitude to my esteemed guide Manjula ma'am , for standing by side all through the implementation and valuable suggestions of the project. She is able to technical guidance and exited have contributed to successful completion of the project.

I sincerely thanks to prof, Head of the Department of Physics & Electronics, Govt. college for women for awarding us this project work.

I also express my sincere thank to the Technical staff of Departments of Physics & Electronics, Govt. college for women ,for providing excellent facilities for the project work.

ABSTRACT

We can touch things, and our senses tell us when our hands are touching something. Today, almost all user interface is based on touch. The range of applications is count-less and some important ones are Mobile Phones, Tablets, Laptop computers, Cars, Elevators, ATMs, Cameras, etc. Touch Sensors are the important components in modern Touch Screen Applications. touch sensor detects touch or near proximity without relying on physical contact. Touch sensors are making their way into many applications like mobile phones, remote controls, control panels, etc. Present day touch sensors can replace mechanical buttons and switches.

Rain water detector automatically triggers an alarm or buzzer. Water is a basic need in every one's life. Saving water and proper usage of water is very important. Here is an project which will give the alarm when there is rain, so that we can make some actions for rain water harvesting and also save the rain water for using it later. Rain water detector will detect the rain and make an alert; rain water detector is used in the irrigation field, home automation, communication, automobiles etc.

CONTENTS

1 INTRODUCTION

2 DESIGN OVERVIEW

Circuit description

Construction and Working

3 COMPONENTS OF THE CIRCUIT

- 0.1 Leds.....
- 0.2 BC547 Transistor.....
- 0.3 Resistor.....
- 0.4 Electric battery
- 0.5 Touching element.....
- 0.6 Switch.....
- 0.7 Buzzer.....
- 0.8 Rain water sensor.....

4 ADVANTAGES

5 APPLICATIONS

6 CONCLUSION

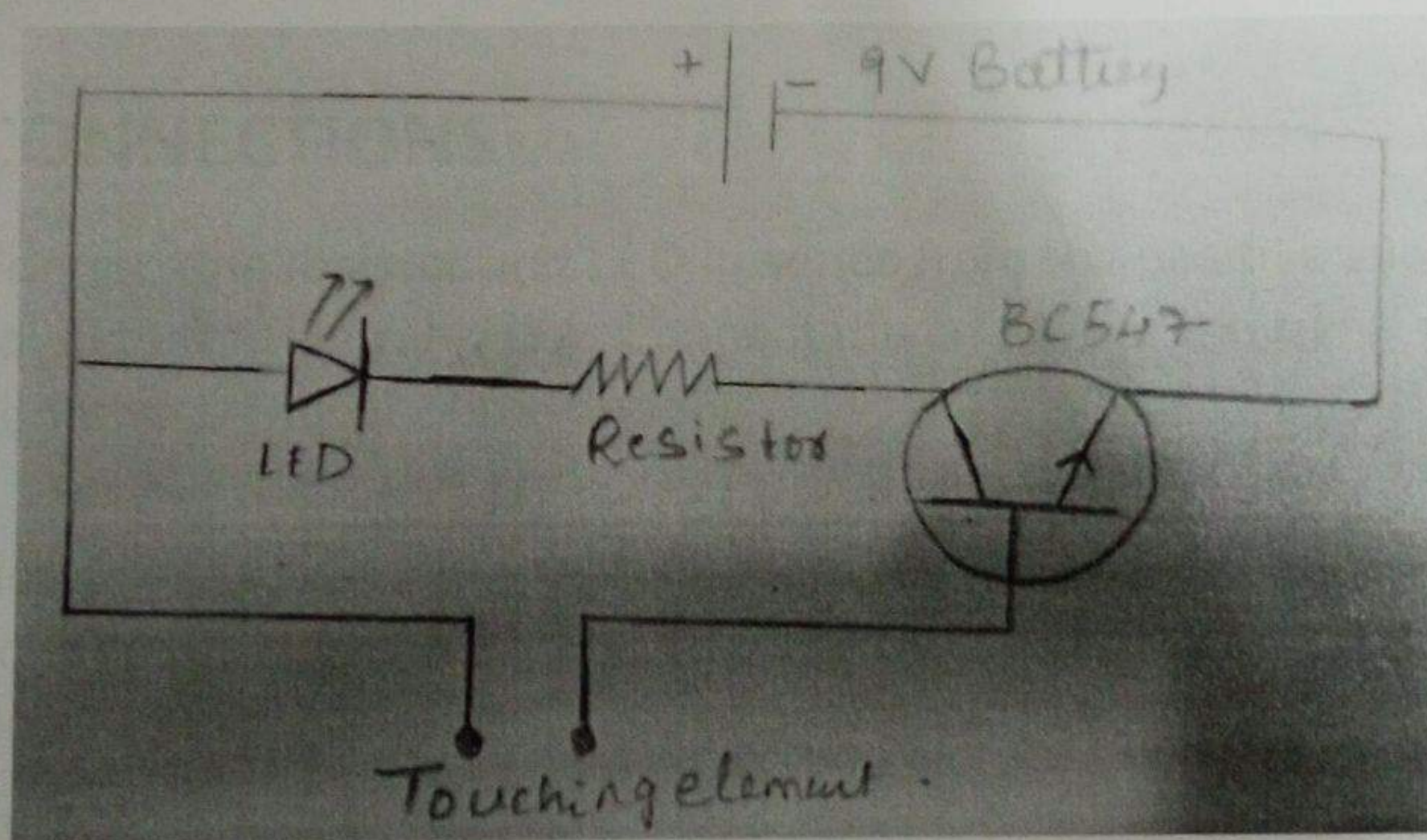
TOUCH SENSOR

INTRODUCTION

A Touch sensor is an electrical sensor used in detecting and recording physical touch. Also known as tactile sensors, it is simple, small, low cost sensor made to replace old mechanical switches like mouse and keyboard.

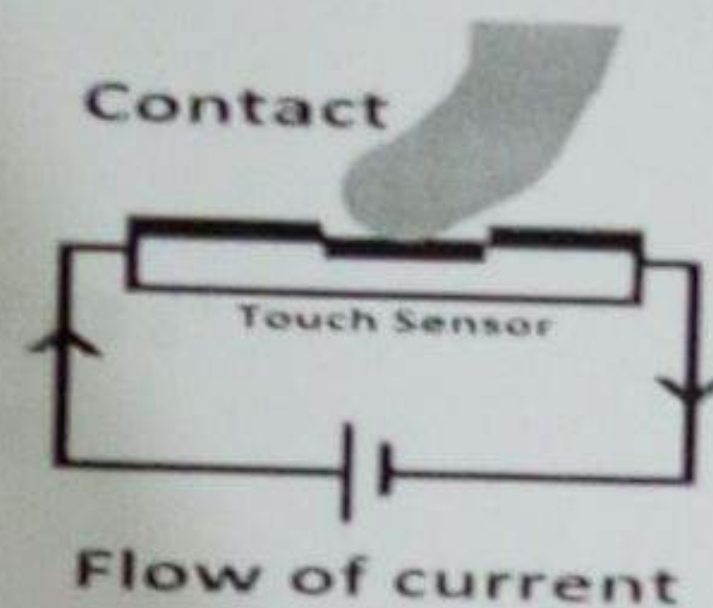
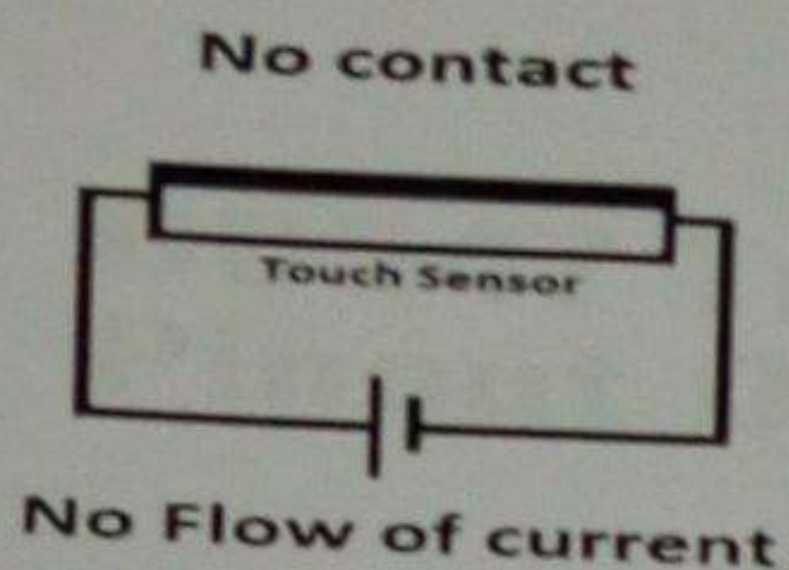
Touch sensors are sensitive to touch. Some of the important applications of touch sensors is that they are used in mobile phones, cars etc.

CIRCUIT DIAGRAM



PRINCIPLE

Flow of charges or ions constitute electric current . The touch sensor is sensitive to touch, pressure as well as force. The touch sensor works similar to that of simple switch. When there is contact or a touch on the closed switch and allows



the current to flow through it. When the contact released, it acts as open switch and hence no current flows.

CONNECTIONS

Connect the resistor and LED in series from the positive supply to the collector of the transistor. Connect the emitter of the transistor to the negative terminal of the supply.

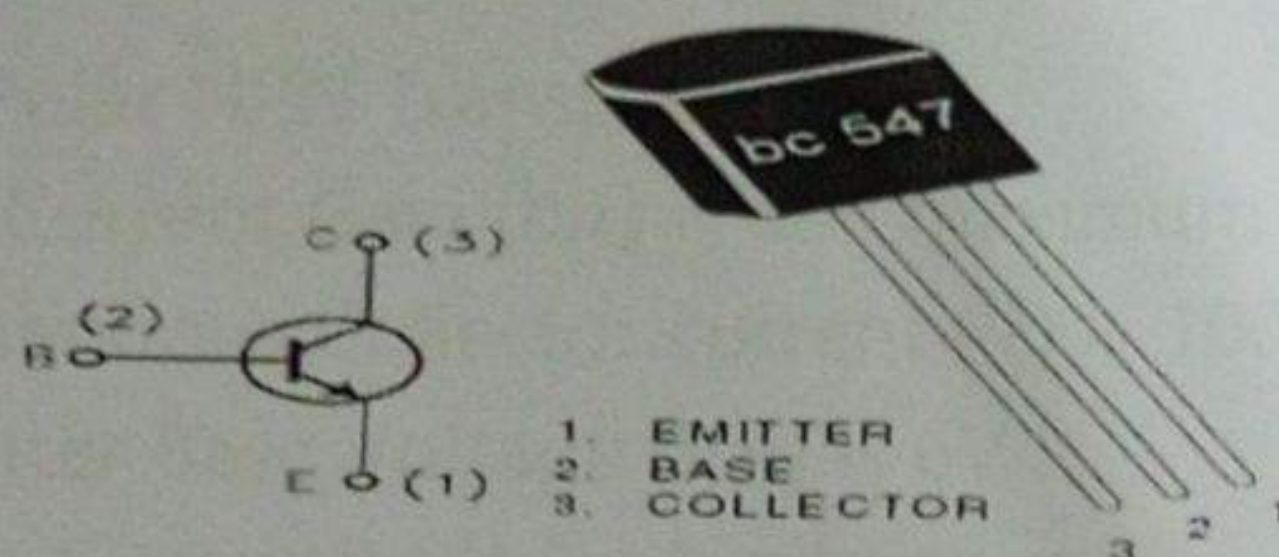
Now, create two wires with exposed ends – so you can see the metal. One goes to the positive supply. The other goes to the base of the transistor. Now, if we try to touch these two wires with your finger then the LED lights up. Then the circuit becomes closes. The reason is that your finger acts as a resistor and will give enough current to the base of transistor. Since the current flow is very less, transistor amplify the current which makes LED to glow.

COMPONENTS OF CIRCUIT

BC 547 TRANSISTOR

BC547 is a NPN transistor hence the collector and emitter will be left open (Reverse biased) when the base pin is held at ground and will be closed (Forward biased) when a signal is provided to base pin.

BC547 Transistor Pinout Diagram



BC547 Transistor Pinout Configuration

Pin Number	Pin Name	Description
1	Collector	Current flows in through collector
2	Base	Controls the biasing of transistor

3	Emitter	Current out emitter	Drains through
---	---------	---------------------------	-------------------

BC547 Transistor Features

1. Bi-Polar NPN Transistor
2. DC Current Gain (h_{FE}) is 800 maximum
3. Continuous Collector current (I_C) is 100mA
4. Emitter Base Voltage (V_{BE}) is 6V
5. Base Current (I_B) is 5mA maximum
6. Available in To-92 Package

Brief Description on BC547

BC547 transistor has a gain value of 110 to 800, this value determines the amplification capacity of the transistor. The maximum amount of current that could flow through the Collector pin is 100mA, hence we cannot connect loads that consume more than 100mA using this transistor. To bias a transistor we have to supply current to base pin, this current (I_B) should be limited to 5mA.

When this transistor is fully biased then it can allow a maximum of 100mA to flow across the collector and emitter. This stage is called Saturation Region and the typical voltage allowed across the Collector-Emitter (V_{CE}) or Base-Emitter (V_{BE}) could be 200 and 900 mV respectively. When base current is removed the transistor becomes fully off, this stage is called as the Cut-off Region and the Base Emitter voltage could be around 660 mV.

BC547 as Switch

When a transistor is used as a switch it is operated in the Saturation and Cut-Off Region as explained above. As discussed a transistor will act as an Open switch during Forward Bias and as a Closed switch during Reverse Bias, this biasing can be achieved by supplying the required amount of current to the base pin. As mentioned the biasing current should maximum of 5mA. Anything more than 5mA will kill the Transistor; hence a resistor is always added in series with base pin. The value of this resistor (R_B) can be calculated using below formulae.

$$R_B = V_{BE} / I_B$$

Where, the value of V_{BE} should be 5V for BC547 and the Base current (I_B depends on the Collector current (I_C). The value of I_B should not exceed mA.

BC547 as Amplifier

A Transistors acts as an Amplifier when operating in Active Region. It can amplify power, voltage and current at different configurations.

Some of the configurations used in amplifier circuits are

7. Common emitter amplifier
8. Common collector amplifier
9. Common base amplifier

Of the above types common emitter type is the popular and mostly used configuration. When used as an Amplifier the DC current gain of the Transistor can be calculated by using the below formulae

$$\text{DC Current Gain} = \text{Collector Current (I}_c\text{)} / \text{Base Current (I}_B\text{)}$$

Applications

1. Driver Modules like Relay Driver, LED driver etc..
2. Amplifier modules like Audio amplifiers, signal Amplifier etc..
3. Darlington pair

LIGHT EMITTING DIODE(LED)

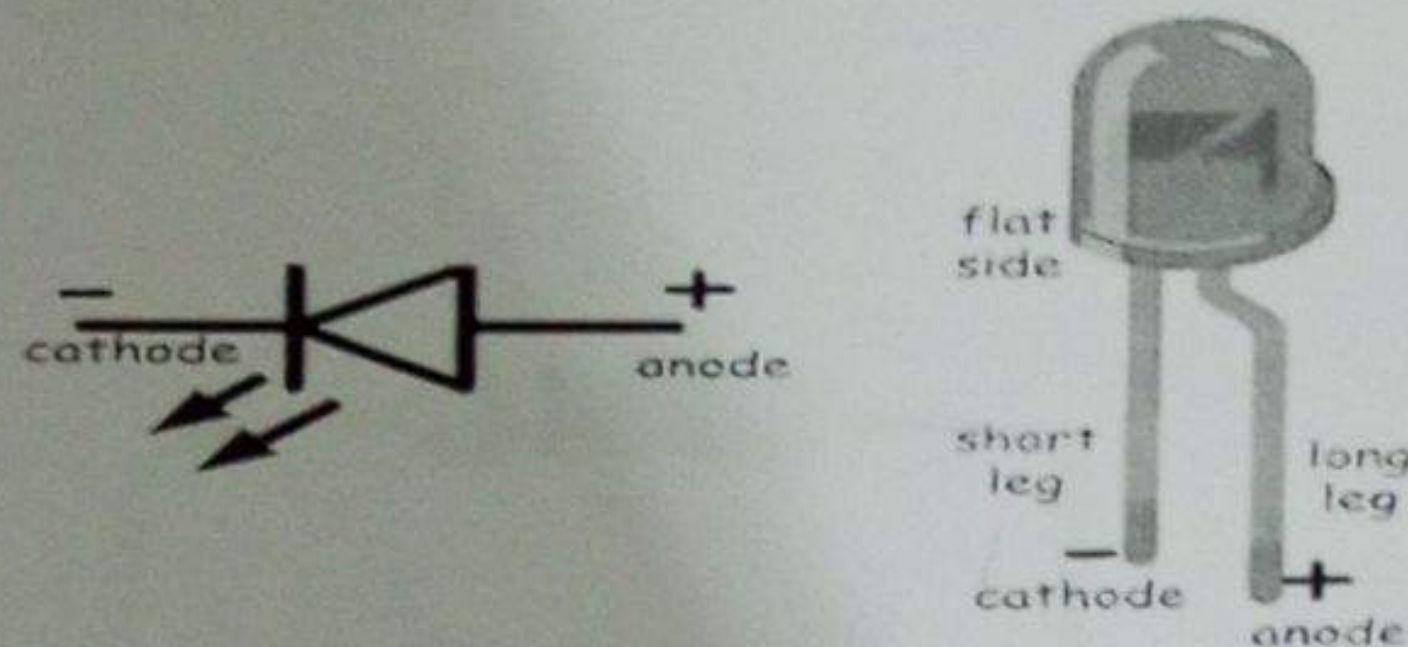
What is LED?

A light-emitting diode (LED) is a semiconductor device that emits light when an electric current flows through it. When current passes through an LED, the electrons recombine with holes emitting light in the process. LEDs allow the current to flow in the forward direction and blocks the current in the reverse direction

Light-emitting diodes are heavily doped p-n junctions. Based on the semiconductor material used and the amount of doping, an LED will emit a coloured light at a particular spectral wavelength when forward biased. As shown in the figure, an LED is encapsulated with a transparent cover so that emitted light can come out.

How does an LED work?

When the diode is forward biased, the minority electrons are sent from p \rightarrow n while the minority holes are sent from n \rightarrow p. At the junction boundary, the concentration of minority carriers increases. The excess minority carriers at the junction recombine with the majority charges carriers.



The energy is released in the form of photons on recombination. In standard diodes, the energy is released in the form of heat. But in light-emitting diodes, the energy is released in the form of photons. We call this phenomenon electroluminescence. Electroluminescence is an optical phenomenon, and electrical phenomenon where a material emits light in response to an electric current passed through it. As the forward voltage increases, the intensity of the light increases and reaches a maximum.

Determines the colour of an LED?

The colour of an LED is determined by the material used in the semiconducting element. The two primary materials used in LEDs are aluminium gallium indium phosphide alloys and indium gallium nitride alloys. Aluminium alloys are used to obtain red, orange and yellow light, and indium alloys are used to get green, blue and white light. Slight changes in the composition of these alloys change the colour of the emitted light.

RESISTOR

What is Resistor?

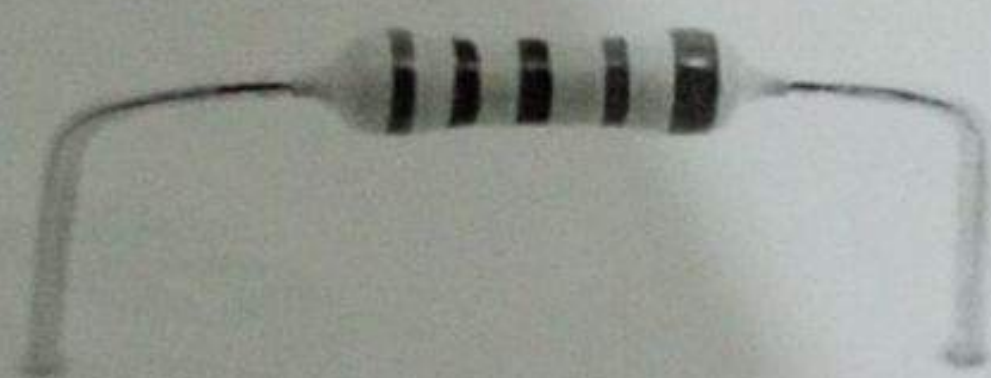
Resistor is defined as

A passive electrical component with two terminals that are used for either limiting or regulating the flow of electric current in electrical circuits. The

main purpose of resistor is to reduce the current flow and to lower the voltage in any particular portion of the circuit. It is made of copper wires which are coiled around a ceramic rod and the outer part of the resistor is coated with an insulating paint.

What is the SI Unit of Resistor?

The SI unit of resistor is Ohm.



ELECTRIC BATTERY

Hi-Watt 9V Battery is the most commonly used and portable 9V battery. It is non-rechargeable and is a high capacity and low-cost solution for many electronic devices. It is based on Zinc Carbon Chemistry and can be used easily replaced if discharged just like any standard AA and AAA batteries. The battery can be used to power LEDs, Toys, Flashlight and Torch, electronic equipment like multimeter, wall clocks, or other devices with a 9V system. A battery snap connector is generally used to connect it with a breadboard.

A battery is a device that converts chemical energy contained within its active materials directly into electric energy by means of an electrochemical oxidation-reduction (redox) reaction. This type of reaction involves the transfer of electrons from one material to another via an electric circuit. While the term battery is often used the **cell** is the actual electrochemical unit used to generate or store electric energy.

How do Batteries Work?

When in operation the electrochemical cell essentially discharges its chemical energy in favor of electric energy. If the cell is connected via an external circuit from the cathode to the anode, electrons flow from the oxidized anode and are received by the cathode, which is subsequently reduced. The electric circuit is completed by cations and anions, within the electrolyte, which flow to the cathode and anode, respectively.



TOUCHING ELEMENT

Two wires which can conduct electricity are used as touching element. Generally, metals are good conductors of electricity. So, we used metallic wires as touching element

APPLICATIONS OF TOUCH SENSOR

Touch sensor in robotics; a touch sensor is commonly used in robots, enabling basic movement and the ability to detect touch in its surroundings (E.g. When the robot runs into something, the touch sensor can have it to stop moving)

1. Smartphone, , automotive, industrial applications

2. Touch sensor faucet in kitchens; allowing for control of running water without having to physically turn the knob

ADVANTAGES OF TOUCH SENSOR

1. Easy to operate and fast response
2. Smaller in size
3. Lower power consumption and sophisticated
4. The cost is cheap and difficult to detect by burglars.

CONCLUSION

Touch sensor work similar to switch. When they are subjected to touch, it get activated and acts as allowed switch. And LED connected in the circuit will glow.

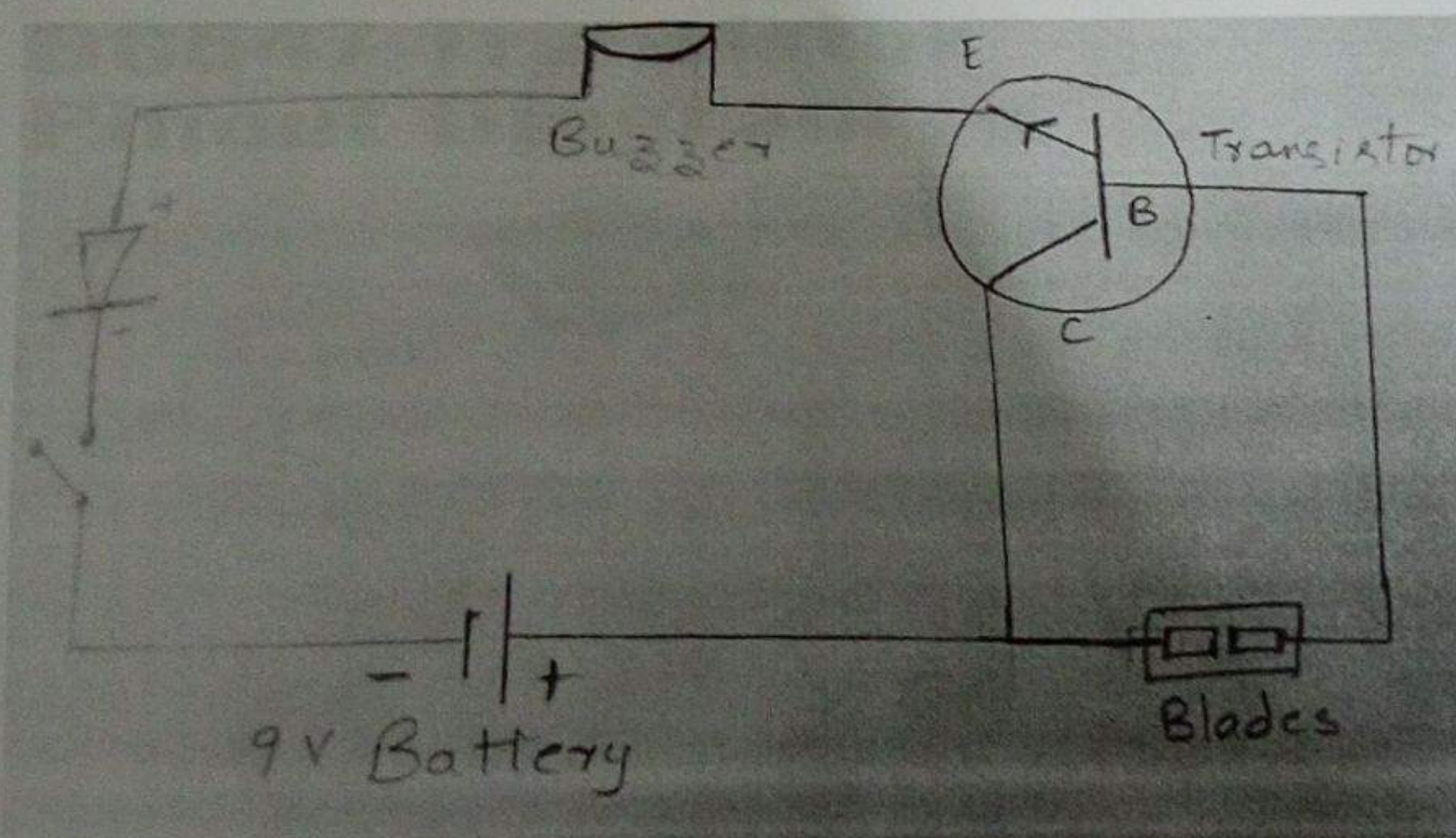
RAIN DETECTOR

INTRODUCTION

Water is essential for every one to live on earth. Nowadays, conserving water as well as its proper usage is essential in everyone's life. Here is a sensor namely rain sensor which is used to detect the rain and generate an alarm. So, we can conserve water to use it later for different purposes. There are several methods available for conserving water like harvesting, etc Using this method we can increase the level of underground water. These sensors are mainly used in the field like automation, irrigation, automobiles, communication, etc. This article discusses a simple as well as reliable sensor module which can be available at low cost in the market.

A Rain detector is one kind of switching device which is used to detect rainfall.

CIRCUIT DIAGRAM



WORKING OF CIRCUIT

The above circuit diagram shows the rain detector. When the switch is closed, then the battery current flows from positive to negative. When rain falls on the sensor. The circuit becomes closed. Since water is a good conductor of electricity,

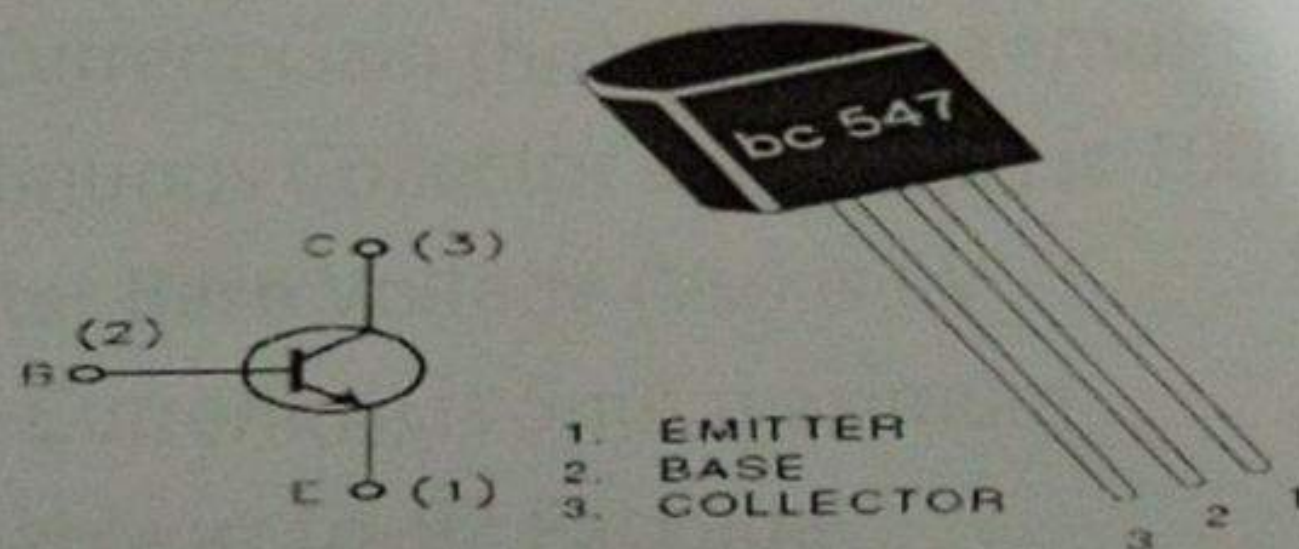
the current flows from positive terminal of the battery to blades and reaches the base of transistions. The transistor becomes saturated . In NPN transistor the current flows from collector to emitter. The current flows through it, and reaches the buzzer. It will be activated and produce the sound. The buzzer is connected to LED and the LED glows, and the current reaches to the negative terminal of the battery. This makes rain detector to operate.

COMPONENTS OF CIRCUIT

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BC547 Transistor Pinout Configuration

Pin Number	Pin Name	Description
1	EMITTER	
2	BASE	
3	COLLECTOR	

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3	Emitter	Current Drains out through emitter

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When a transistor is used as a switch it is operated in the Saturation and Cut-Off Region as explained above. As discussed a transistor will act as an Open switch during Forward Bias and as a Closed switch during Reverse Bias, this biasing can be achieved by supplying the required amount of current to the base pin. As mentioned the biasing current should maximum of 5mA. Anything more than 5mA will kill the Transistor; hence a resistor is always added in series with base pin. The value of this resistor (R_B) can be calculated using below formulae.

$$R_B = V_{BE} / I_B$$

Where, the value of V_{BE} should be 5V for BC547 and the Base current (I_B depends on the Collector current (I_C). The value of I_B should not exceed mA.

BC547 as Amplifier

A Transistors acts as an Amplifier when operating in Active Region. It can amplify power, voltage and current at different configurations.

Some of the configurations used in amplifier circuits are

1. Common emitter amplifier
2. Common collector amplifier
3. Common base amplifier

Of the above types common emitter type is the popular and mostly used configuration. When used as an Amplifier the DC current gain of the Transistor can be calculated by using the below formulae

DC Current Gain = Collector Current (I_C) / Base Current (I_B)

Applications

1. Driver Modules like Relay Driver, LED driver etc..
2. Amplifier modules like Audio amplifiers, signal Amplifier etc..
3. Darlington pair

LIGHT EMITTING DIODE(LED)

What is LED?

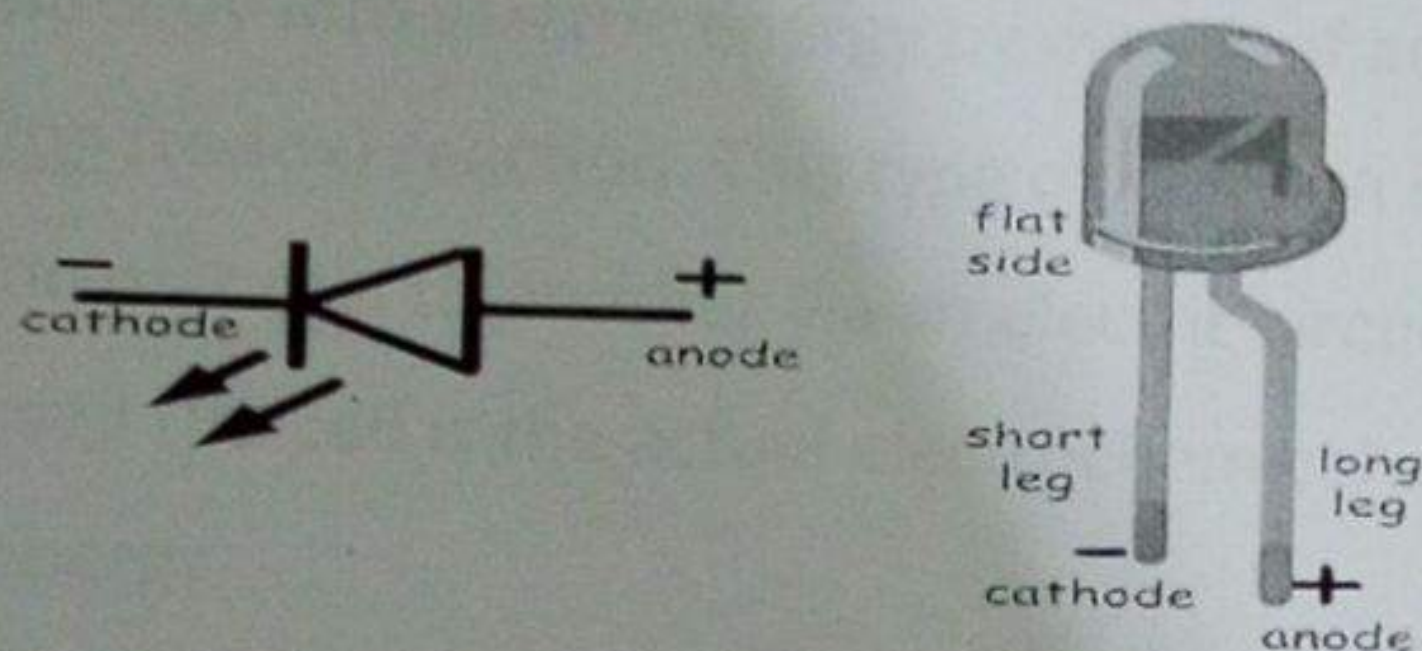
A light-emitting diode (LED) is a semiconductor device that emits light when an electric current flows through it. When current passes through an LED, the electrons recombine with holes emitting light in the process. LEDs allow the current to flow in the forward direction and blocks the current in the reverse direction

Light-emitting diodes are heavily doped p-n junctions. Based on the semiconductor material used and the amount of doping, an LED will emit a

coloured light at a particular spectral wavelength when forward biased. As shown in the figure, an LED is encapsulated with a transparent cover so that emitted light can come out.

How does an LED work?

When the diode is forward biased, the minority electrons are sent from p \rightarrow n while the minority holes are sent from n \rightarrow p. At the junction boundary, the concentration of minority carriers increases. The excess minority carriers at the junction recombine with the majority charges carriers.



The energy is released in the form of photons on recombination. In standard diodes, the energy is released in the form of heat. But in light-emitting diodes, the energy is released in the form of photons. We call this phenomenon electroluminescence. Electroluminescence is an optical phenomenon, and electrical phenomenon where a material emits light in response to an electric current passed through it. As the forward voltage increases, the intensity of the light increases and reaches a maximum.

Determines the colour of an LED?

The colour of an LED is determined by the material used in the semiconducting element. The two primary materials used in LEDs are aluminium gallium indium phosphide alloys and indium gallium nitride alloys. Aluminium alloys are used to obtain red, orange and yellow light, and indium alloys are used to get green, blue and white light. Slight changes in the composition of these alloys change the colour of the emitted light.

ELECTRIC BATTERY

Hi-Watt 9V Battery is the most commonly used and portable 9V battery. It is non-rechargeable and is a high capacity and low-cost solution for many electronic devices. It is based on Zinc Carbon Chemistry and can be used easily replaced if discharged just like any standard AA and AAA batteries. The battery can be used to power LEDs, Toys, Flashlight and Torch, electronic equipment like multimeter, wall clocks, or other devices with a 9V system. A battery snap connector is generally used to connect it with a breadboard.

A **battery** is a device that converts chemical energy contained within its active materials directly into electric energy by means of an electrochemical oxidation-reduction (redox) reaction. This type of reaction involves the transfer of electrons from one material to another via an electric circuit. While the term battery is often used the **cell** is the actual electrochemical unit used to generate or store electric energy.

How do Batteries Work?

When in operation the electrochemical cell essentially discharges its chemical energy in favor of electric energy. If the cell is connected via an external circuit

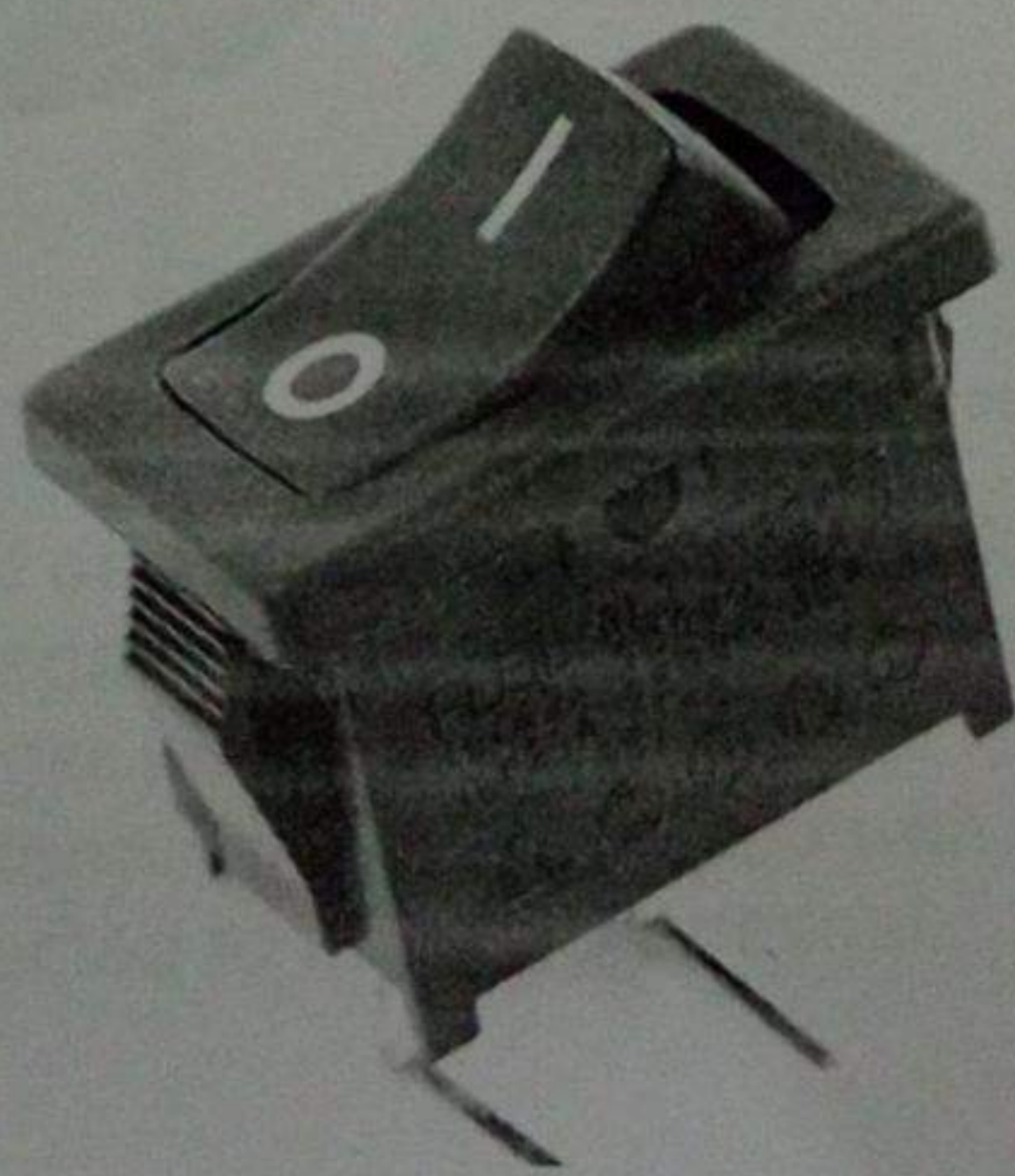


from the cathode to the anode, electrons flow from the oxidized anode and are received by the cathode, which is subsequently reduced. The electric circuit is completed by cations and anions, within the electrolyte, which flow to the cathode and anode, respectively.

SWITCH

In electrical engineering, a **switch** is an electrical component that can disconnect or connect the conducting path in an electrical circuit, interrupting the electric current or diverting it from one conductor to another.[1][2] The most common type of switch is an electromechanical device consisting of one or more sets of movable electrical contacts connected to external circuits. When a pair of contacts is touching current can pass between them, while when the contacts are separated no current can flow.

Switches are made in many different configurations; they may have multiple sets of contacts controlled by the same knob or actuator, and the contacts may operate simultaneously, sequentially, or alternately. A switch may be operated manually, for example, a light switch or a keyboard button, or may function as a sensing element to sense the position of a machine part, liquid

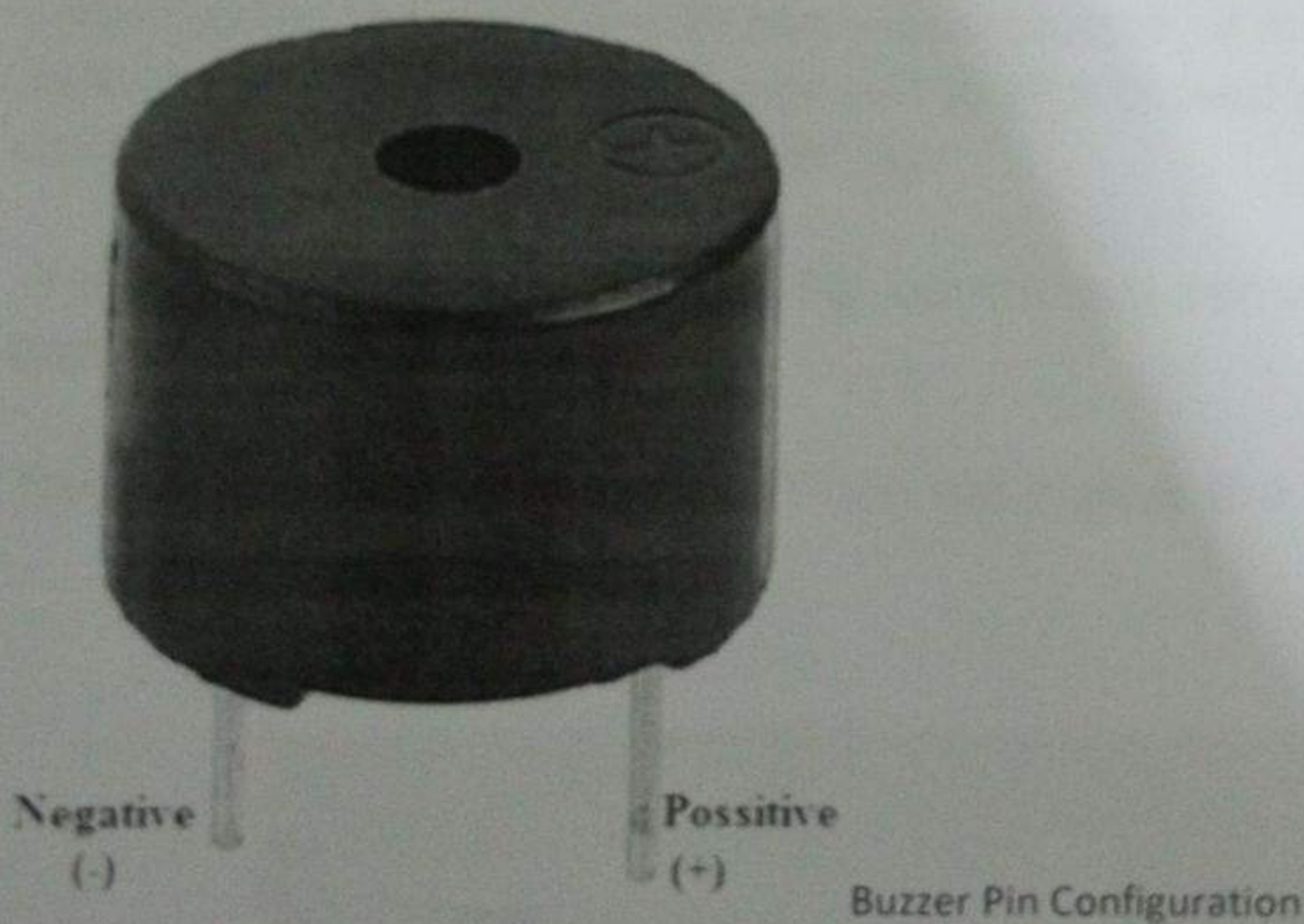


level, pressure, or temperature, such as a thermostat. Many specialized forms exist, such as the toggle switch, rotary switch, mercury switch, push-button switch, reversing switch, relay, and circuit breaker. A common use is control of lighting, where multiple switches may be wired into one circuit to allow convenient control of light fixtures. Switches in high-powered circuits must have special construction to prevent destructive arcing when they are opened.

BUZZER

What is a Buzzer?

An audio signaling device like a beeper or buzzer may be electromechanical or piezoelectric or mechanical type. The main function of this is to convert the signal from audio to sound. Generally, it is powered through DC voltage and used in timers, alarm devices, printers, alarms, computers, etc. Based on the various designs, it can generate different sounds like alarm, music, bell & siren.



The **pin configuration of the buzzer** is shown below. It includes two pins namely positive and negative. The positive terminal of this is represented with the '+' symbol or a longer terminal. This terminal is powered through 6Volts whereas the negative terminal is represented with the '-' symbol or short terminal and it is connected to the GND terminal.

History

The history of an electromechanical buzzer and piezoelectric is discussed below.

Types of Buzzer

A buzzer is available in different types which include the following.

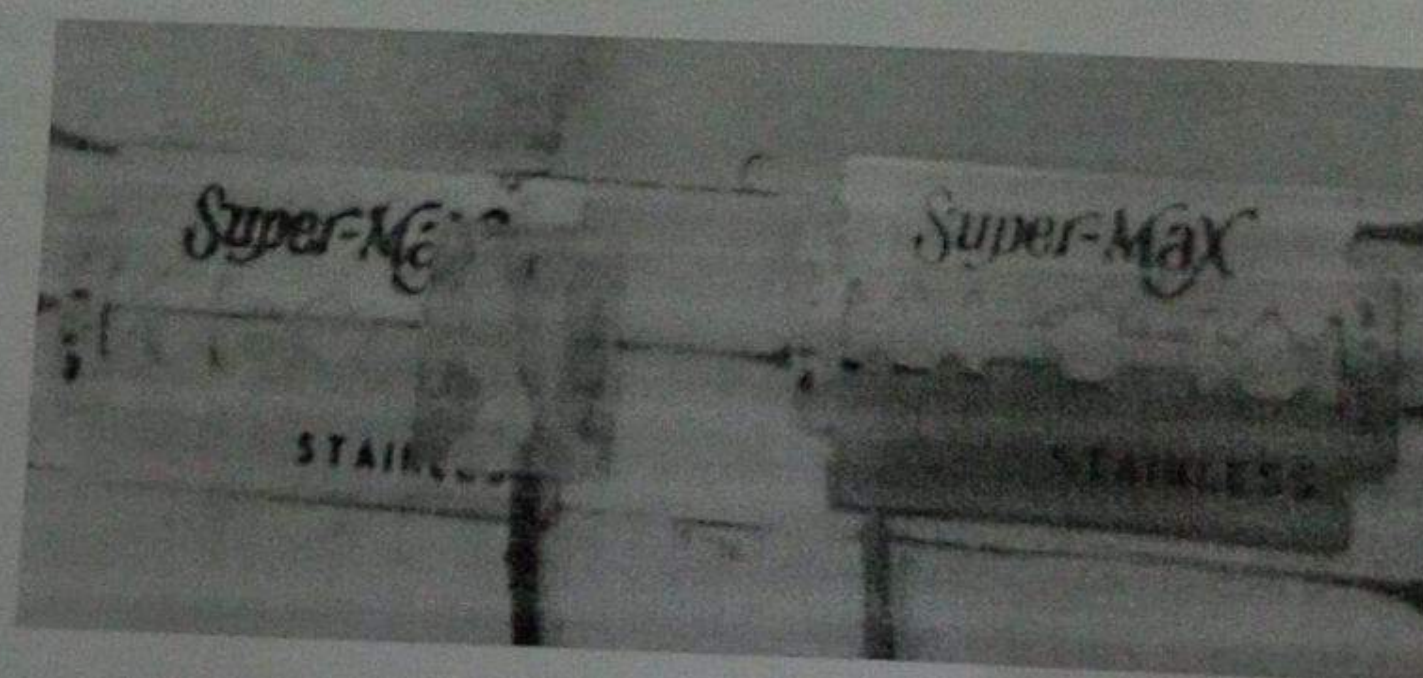
- Piezoelectric
- Electromagnetic
- Mechanical
- Electromechanical
- Magnetic

RAIN WATER SENSOR

Two blades connecting with two wires sensor. It is an easy equipment to detect rain. Through this, the circuit will be closed when it rains, and remains open, when it is not raining.

If there is rain, the water drop fall on the rain sensor, since water is good conductor of electricity,

The electrical current flows through will makes the buzzer to sound



ADVANTAGES OF RAIN DETECTOR

1. The rain sensor is used to save more eye by disabling the irrigation system once it rains. So that electricity consumption can be reduced.
2. Simple operating principle
3. It operates at less power
4. The life of different systems based on rain sensors will be extended like irrigation system, car wipers through running them simply once it is needed.

APPLICATIONS OF RAIN DETECTOR

1. In the irrigation, it will detect the rain and immediately alert the farmer.
2. In automobiles, when the rain detector detects the rain it will immediately active the wipers and inform the driver.
3. In communications, it will boost the power of the antenna and increase the signal strength to send or receive the signals.
4. In normal house hold, with the help of rain water detector we can automatically save the rain water. (This can be done only when home automation is done and there is proper equipment to save the rain water. In this, rain water detector will detect the rain and helps to switch ON the equipment which will automatically save rain water for different purposes).
5. This can also be used if there is a chemical rain also. This is very common in industrial areas

CONCLUSION

This sensor will detect rain and sound is produced by buzzer. It alerts users to the presence of rainfall. It is activated by even the tiniest drop of water. It can be used in houses, agricultural purposes



REMOTE CONTROL AEROPLANE

A PROJECT WORK SUBMITTED IN FULFILLMENT OF
REQUIREMENTS FOR DEGREE OF B.SC (PHYSICS)

By

Kuchipudi Meena

Reg No :- 19301020

Under esteemed supervision of

N. MANJULA BHARATHI

HOD K. VIJAYASHREE

2021-22



[Handwritten signature in green ink]

DEPARTMENT OF PHYSICS

GOVT. COLLEGE FOR WOMEN (AUTONOMOUS)

ACHARYA NAGARJUNA UNIVERSITY

GUNTUR-522004

JUNE-2022

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JUNE-2022

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N. M. Bharathi

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N. Manjula Bharathi

K. Vijay Sree Madam

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K. Vijay Sree Madam

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JUNE – 2022

DECLARATION

We k. Meena here by declare that the project work entitled "REMOTE CONTROL AEROPLANE" Submitted by us is original and it is not submitted in full or part of any course or any other institute or university.

Place:- Guntur

Date:- June 2022

k.meena
(K. Meena)

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I feel it great pleasure to express my immense gratitude to my esteemed guide Sri. N. Manjula Bharati, for by standing by me side all through the implementation and valuable suggestions of the project . she is able to technical guidance and exited have contributed to the successful completion of the project.

I Sincerely thanks to prof. Head of the department of physics& Electronics Govt. college for women for awarding us this project work.

I also express my sincere thanks to the technical staff of department of physics& Electronics Govt. college for women for providing excellent facilities for the project work.

Remotely- controlled airplanes have a variety of uses which includes recreational activity, education of heavier-than-air flight principles, and serves as applications in the national defense field, to name a few. In the latter sense, human operators flying a plane through transmitted signals allows them to utilize the benefits of air travel without risking the safety of the operator.

The transmitter controller and RC plane interact by sending and receiving signals to and from each other by which the controller determines the airplane's altitude , speed, and direction. The systems essential functions are to accept inputs from the transmitter operated by user and covert the inputs into signals that will then be transmitted to the airplane. The airplane will then receive the airborne signals that will play the primary role in manipulating airplane control features, which include the elevator, rudder, and throttle. This project will the relationship and interaction between the operator , who controls the system, the transmitter and airplane.

CONTENTS

1. Introduction
2. Principle of working
3. How do planes fly
4. Construction of airplane
5. Working
6. Result
7. conclusion

In a lot of science books and web pages, you all read an incorrect explanation how an airfoil like this generates lift. It goes like this: when air rushes over the curved upper wing surface, it has to travel further than air that passes underneath, so it has to go faster according to principles of aerodynamics called Bernoulli's law, fast-moving air is at lower pressure than slow moving air, so the pressure above the wing is lower than the pressure below, and this creates the lift that powers the plane upward.

Although the explanation of how wings work is widely repeated, it's wrong: it gives the right answer, but for completely the wrong reasons think about it for about it for a moment and you will see that if it were true, acrobatic planes couldn't fly upside down. Flipping a plane over would produce "down lift" and send it crashing to the ground. Not only that, but it's perfectly possible to design planes with airfoils that are symmetrical and they still produce lift. For example, paper airplanes generate lift even though they have flat wings.

Principle of airplane flying :-

According to principle of aerodynamics called Bernoulli's law fast moving air at lower pressure than slow moving air, so the pressure above the wing is lower than the pressure below, and this creates the lift that powers the plane upward.

How do planes fly:-

If you've ever watched a jet plane taking off into land the first thing you all have noticed is the noise of the engines which are long metal tubes lowering a continuous rush of fuel and air are fall noiser and for more powerful than traditional propeller engines . you might think engines are key to making a plane fly low you'd be wrong. Think's can fly quite happily without engines as planes with no engines paper planes and indeed gliding birds readily show as.

Construction:-

Take one bottle, and put holes on the top of the bottle and holes below of the bottle.

And then take one card board and make it 30cm length and width 5cm put this card board on the bottle with help of the sticks.

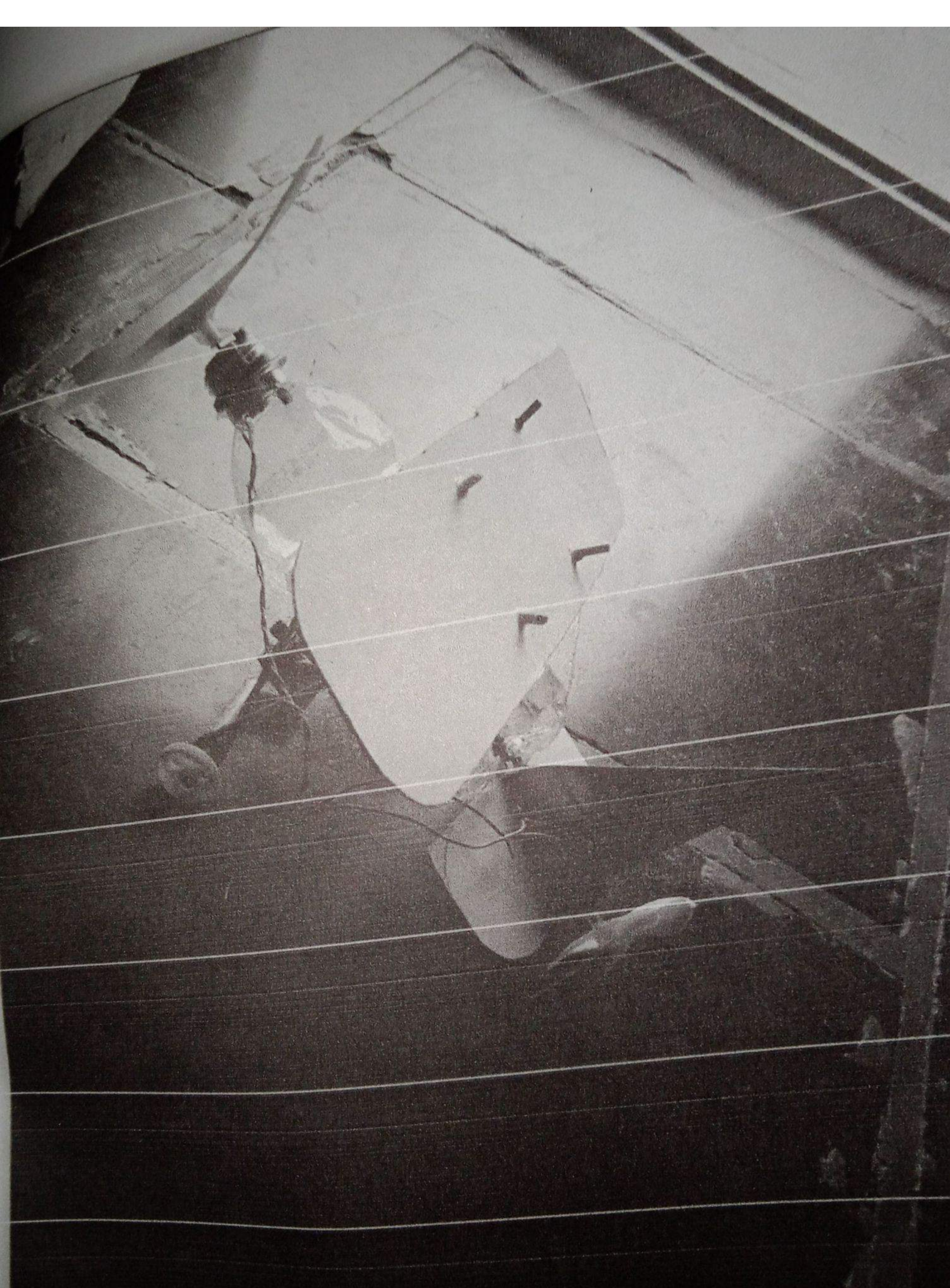
- After that we will stick 3 wheels to the bottom of the bottle
- And we take fan and arrange it in front of the bottle
- Take another fan and it is also arrange it behind the bottle.

Working:-

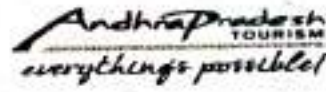
The plane is fly with the help of battery and remote. The plane fly in the air due to "Bernoulli's law".

Result & conclusion:-

The remote control airplane is fly.







A PROJECT WORK ON TAJ BANJARA IN HYDERABAD



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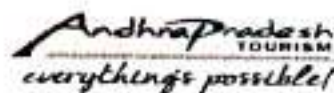
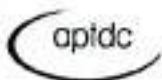
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2019 - 2022





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The success and final outcome of this project required a lot of guidance and assistance from many people and I am extremely prevailed to have got this all along the competition of my project. All that in have done is only due to such superstition and assistance and I would not forget to thank them.

I take pleasure to express my deep sense of gratitude and thankfulness to the department of tourism and travel management, Govt. College for women (A), Guntur.

I am thankful to and fortunate enough to get constant encouragement, support and guidance from all teaching staff of History and Tourism department which helped me in successfully completing my project work. Also, I would like to extend my sincere esteems to my parents for supporting me and allowing me in completing of all my trips.


SIGNATURE OF THE STUDENT

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TAJ BANJARA



At Taj Banjara everything is designed to the taste of modern business and leisure travellers. From spacious rooms with contemporary facilities replete with scenic views of the lake and the city view. But the 24/7 hassle-free service at our hotel in Hyderabad makes the experience a memorable one.

About this hotel

Overlooking a lake, this modern hotel is 6 km from both the Jalavihar water park and the Birla Mandir temple, and 9 km from Chowmahalla Palace. ...

The facilities of Taj Banjara:

Pool
Spa
Breakfast
Wi-Fi
Internet
Food and drink
Restaurant
Bar
Buffet dinner
Room service
24-hour
Breakfast
Free
Breakfast buffet
Services
Front desk
24-hour
Full-service laundry
Children
Child-friendly
Pools
Outdoor pool
Parking & transport
Parking
Free
Valet parking
Airport shuttle
Car rental onsite
Local shuttle

SELF CHECK – OUT

Only fully automated hotels are equipped with self service terminals, which allow guests to C/I and C/O promptly. Self C/I and C/O kiosks identify guests by their room number, credit card number. Guests can access and review their folios and settle their accounts using the credit card.

The guest checkout involves the following steps:

Guest returns key to desk clerk. Desk clerk retrieves hard copy of electronic folio. Desk clerk reviews folio for completeness. Guest reviews charges and payments. Guest determines method of payment.





4. KEY DEPARTMENTS OF TAJBANJARA:

As an outsider when you look at a hotel, the operation appears to be pretty simple, selling of rooms and food and beverage services etc. But, actually, the hotel is a highly complex operation where several departments function, coordinate and interact for a smooth day to day operations.

In order to run the Hotel as a functional unit, there are several departments in a hotel which work and coordinate together and the major departments of the hotel are:

1. Front Office Department
2. Housekeeping Department
3. Food and Beverage Service Department
4. Kitchen or Food Production Department
5. Engineering and Maintenance Department
6. Accounts and Credits Department
7. Security Department
8. Human Resources (HR) Department
9. Sales and Marketing Department
10. Purchase Department
11. Information Technology (IT)



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A REPORT ON MY FIELD TRIPS



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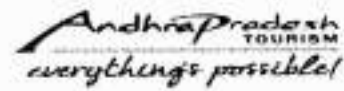
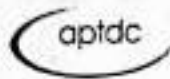
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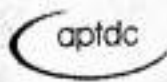
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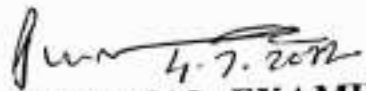
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that leave nothing to be desired for. Together, we will revamp your reception area and provide your staff and clients with a reception area that is both stylish and practical.

- **IMPORTANCE OF HOUSE KEEPING IN TRIDENT HOTEL**



The housekeeping department plays a vital role in every hotel. Housekeeping staff is responsible for ensuring that guest areas are trim and spruce, and without housekeeping, the state of a hotel would quickly deteriorate.

Modern-day housekeeping software makes it easier than ever to ensure your hotel and its housekeeping staff is organized and efficient. Digital tools incorporate several avenues for streamlined communication and task management, ensuring your housekeeping department is always up to date with the latest information.

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HOTEL HYDERABAD**



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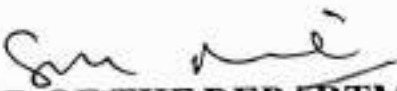
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EXTERNAL EXAMINOR

Studio Rooms



Studio rooms are a bit more flexible than most other types of rooms and often are a bit less pricey, especially when staying in a 5-star hotel. Studios are smaller than doubles but larger than twins. They typically have only one bed, but that bed can be converted into a couch when it's not time for sleep. Depending on the hotel, it may also have a kitchenette with a small fridge and stove for cooking. A studio room is perfect for those looking for a cheaper option or for someone who's looking to stay for a longer period of time and wants the amenities of a small apartment.

A STUDENT PROJECT WORK ON
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Govt. College for Women
(AUTONOMOUS) - GUNTUR. 1942 (Estd.)
College with Potential for Excellence

(Submitted for B.Com (General) Degree in Banking /Insurance /Retailing/ Taxation under
Acharya Nagarjuna University 2019-2022)

Submitted by

NAME OF THE STUDENT	REGISTRATION . NO.	SEMESTER
1. K.GAYATHRI	19203009	V
2. SABIRA BEGUM	19203025	V
3. PREETHI RENUKA	19203030	V
4. DURGA	19203016	V
5. D. MALLESWARI	19201011	V

Supervised by

DR.N. THYAGARAJU.

ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE
GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP



Month & Year of Submission

JANUARY, 2022



STUDENT'S DECLARATION

" I/we declare that the project work/report entitled, **A STUDENT PROJECT WORK ON "CUSTOMER SATISFACTION ON AGRICULTURAL LOAN SERVICE OF COMMERCIAL BANKS- A CASE STUDY(Special reference to HDFC BANK,AMARAVATHI ROAD , Guntur Dist.)**"is a record of independent/team work carried out by me/us under the guidance of **Dr. N. THYAGARAJU ,M.Com.,M.Phil.,Ph.D.,M.A(Eco) Assistant Professor, Department of Commerce, Government College For women,(Autonomous)GUNTUR, GUNTUR DIST-AP**

I/we also declare that this project report/work is a result of my/our own effort and was not submitted to this or to any other University earlier, for the award of any degree or diploma.

NAME OF THE STUDENT	REGD.NO.	SEMESTER	Signature of the Student
1.K.GAYATHRI	19203009	V	K.Gayathri
2.SABIRA BEGUM	19203025	V	Sabira Begum
3.PREETHI RENUKA	19203030	V	A.Preethi Renuka
4.DURGA	19203016	V	M.Durga
5.D.MALLESWARI	19201011	V	D.malleswari

Place: GUNTUR

Date:

Name of the College
DEPARTMENT OF COMMERC
GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP



III. SUPERVISOR'S CERTIFICATE

This is to certify that **K.GAYATHRI(19203009)** is a student of B.Com (General) Degree in Banking in **GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), GUNTUR, GUNTUR DIST-AP**, Affiliated to Acharya Nagarjuna University, has worked under my Supervision and Guidance for his Project work and prepared a project Report **A STUDENT PROJECT WORK ON "CUSTOMER SATISFACTION ON AGRICULTURAL LOAN SERVICE OF COMMERCIAL BANKS- A CASE STUDY(Special reference to HDFC BANK OF INDIA , AMARAVATHI Road , Guntur Dist.)"** Which she is submitting her genuine and original work to the best of my knowledge.

Name of the Supervisor

DR.N. THYAGARAJU.

**ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE
GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP**

**SIGNATURE OF THE SUPERVISOR &
INTERNAL EXAMINER**

Place:

Date:

SIGNATURE OF THE EXTERNAL EXAMINER



ACKNOWLEDGEMENTS

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Place:

Date:

Name of the Candidate: K.GAYATHRI

Registration No : 19203009

Semester No :V

**Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001**



ACKNOWLEDGEMENTS

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Place:

Date:

Name of the Candidate: **SABIRA BEGUM**

Registration No : **19203025**

Semester No : **V**

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001



ACKNOWLEDGEMENTS

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Place:

Date:

Name of the Candidate: **A.PREETHI RENUKA**

Registration No : **19203030**

Semester No : **V**

Name of the College
Department of Commerce
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Sambasivapet , Guntur Dist-522001



ACKNOWLEDGEMENTS

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Place: **REPALLE**

Date:

Name of the Candidate: **M.DURGA**

Registration No : **19203016**

Semester No : **V**

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001.

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- Profile of the HDFC Bank of India

CHAPTER-IV: DATA ANALYSIS AND INTREPRETATION

CHAPTER-V: Findings, Suggestions, Conclusions

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Submitted by

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5. D. MALLESWARI	19201011	V

Supervised by

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ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE
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Month & Year of Submission

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Place: GUNTUR

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Name of the Supervisor

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**ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE
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GUNTUR, GUNTUR DIST-AP**

**SIGNATURE OF THE SUPERVISOR &
INTERNAL EXAMINER**

Place:

Date:

SIGNATURE OF THE EXTERNAL EXAMINER



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Place:

Date:

Name of the Candidate: K.GAYATHRI

Registration No : 19203009

Semester No :V

**Name of the College
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Place:

Date:

Name of the Candidate: **SABIRA BEGUM**

Registration No : **19203025**

Semester No : **V**

Name of the College
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Place:

Date:

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Registration No : **19203030**

Semester No : **V**

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Place: **REPALLE**

Date:

Name of the Candidate: **M.DURGA**

Registration No : **19203016**

Semester No : **V**

Name of the College
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Sambasivapet , Guntur Dist-522001.

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College copy

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Submitted by

NAME OF THE STUDENT	REGISTRATION . NO.	SEMESTER
1.MD. GOWSIYAULWAR	19201024	V
2.Y.VIJAYA LAKSHMI	19201060	V
3.K.BUJJAMMA	19201019	V
4.P.SUDHA RANI	19201035	V
5.V.JYOTHI	19201056	V

Supervised by

DR.N.THYAGARAJU.

**ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE
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GUNTUR, GUNTUR DIST-AP**



Month & Year of Submission

JANUARY, 2022



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1.MD. GOWSIYAULWAR	19201024	V	Mahammad Gowsiyaulwar
2.Y.VIJAYA LAKSHMI	19201060	V	y.vijayalakshmi
3.K.BUJJAMMA	19201019	V	k.Bujamma
4.P.SUDHA RANI	19201035	V	P. sudharani
5.V.JYOTHI	19201056	V	Varela. Jyothi.

Place: Repalle

Date:

Name of the College

DEPARTMENT OF COMMERCE

GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)

GUNTUR, GUNTUR DIST-AP



INTERNAL SUPERVISOR'S CERTIFICATE

This is to certify that MD.GOWSIYA ULWAR(19201024) is a student of B.Com (General) Degree in Government College For Women(Autonomous)Sambasivapet , Guntur Dist-522001, Affiliated to Acharya Nagarjuna University, has worked under my Supervision and Guidance for his Project work and prepared a project Report **A STUDENT PROJECT WORK ON"CUSTOMER SATISFACTION ON HOME LOAN SERVICE OF COMMERCIAL BANKS- A CASE STUDY(Special reference to STATE BANK OF INDIA, Kannavarithota, Guntur Dist.)"** Which She is submitting her genuine and original work to the best of my knowledge.

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GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP

**SIGNATURE OF THE SUPERVISOR &
INTERNAL EXAMINER**

Place: **GUNTUR**

Date:

SIGNATURE OF THE EXTERNAL EXAMINER



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Place: : GUNTUR

Date:

Name of the Candidate: MD.GOWSIYA ULWAR

Registration No : 19201024

Semester No :V

Name of the College

Department of Commerce

Government College For Women (Autonomous)

Sambasivapet , Guntur Dist-522001



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Place: : GUNTUR

Date:

Name of the Candidate: **Y.VIJAYALAKSHMI**

Registration No : 19201060

Semester No :V

Name of the College
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Sambasivapet , Guntur Dist-522001



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Place: GUNTUR

Date:

Name of the Candidate: K.BUJJAMMA

Registration No : 19201019 Semester No :VI

Name of the College :
**Sri A.B.R. Government Degree College,
Repalle, Guntur Dist-522265.**



ACKNOWLEDGEMENTS

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Place: **GUNTUR**

Date:

Name of the Candidate: **P.SUDHARANI**

Registration No : **19201035**

Semester No : **V**

Name of the College
Department of Commerce
Government College For Women (Autonomous)
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ACKNOWLEDGEMENTS

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Place: **GUNTUR**

Date:

Name of the Candidate: V.JYOTHI

Registration No : 19201056

Semester No :V

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CHAPTER-III: PROFILE OF THE BANK

- Profile of the State Bank of India

CHAPTER-IV: DATA ANALYSIS AND INTREPRETATION

CHAPTER-V: Findings, Suggestions, Conclusions

❖ BIBLIOGRAPHY

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(Reference to STATE BANK OF INDIA, Kannavarithota, Guntur Dist.)"

A STUDENT PROJECT WORK ON
"Status of women empowerment practices in Rural areas of
Ponnuru", Guntur Dist.)"



Govt. College for Women
(AUTONOMOUS) - GUNTUR. 1942 (Estd.)
College with Potential for Excellence

(Submitted for B.Com (General) Degree in Banking /Insurance /Retailing/
Taxation under Acharya Nagarjuna University 2019-2022)

Submitted by

NAME OF THE STUDENT	REGISTRATION . NO.	SEMESTER
1.P.AMBIKA	19201043	V
2.D.KAVYA	19201013	V
3.P.SARASWATHI	19201037	V
4.J.YAMUNA	19201016	V
5.B.LOICE	19201008	V

Supervised by

DR.N. THYAGARAJU.

ASSISTANT PROFESSOR, DEPARTMENT OF COMMER
GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP



Month & Year of Submission

JANUARY, 2022



STUDENT'S DECLARATION

" I/we declare that the project work/report entitled, A STUDENT PROJECT WORK ON "Status of women empowerment practices in Rural areas of Ponnuru", Guntur Dist.)" is a record of independent/team work carried out by me/us under the guidance of

Dr. N.THYAGARAJU ,M.Com.,M.Phil.,Ph.D.,M.A(Eco) **Assistant Professor, Department of Commerce, Government College For women,(Autonomous)GUNTUR, GUNTUR DIST-AP**

I/we also declare that this project report/work is a result of my/our own effort and was not submitted to this or to any other University earlier, for the award of any degree or diploma.

NAME OF THE STUDENT	REGD.NO.	SEMESTER	Signature of the Student
1.P.AMBIKA	19201043	V	P. Ambika
2.D.KAVYA	19201013	V	D. Kavya
3.P.SARASWATHI	19201037	V	P. Saraswathi
4.J.YAMUNA	19201016	V	J. Yamuna
5.B.LOICE	19201008	V	B. Loice

Place: Repalle

Date:

Name of the College

DEPARTMENT OF COMMERCERCE

GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)

GUNTUR, GUNTUR DIST-AP



III. SUPERVISOR'S CERTIFICATE

This is to certify that P.AMBIKA(19201043) is a student of B.Com (General) Degree in GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS) GUNTUR, GUNTUR DIST-AP, Affiliated to Acharya Nagarjuna University, has worked under my Supervision and Guidance for her Project work and prepared a project Report **A STUDENT PROJECT WORK ON "Status of women empowerment practices in Rural areas of Ponnuru", Guntur Dist.)** Which he is submitting his genuine and original work to the best of my knowledge.

Name of the Supervisor


DR.N. THYAGARAJU.

ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE
GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP


SIGNATURE OF THE SUPERVISOR &
INTERNAL EXAMINER

ce: GUNTUR

Date:


SIGNATURE OF THE EXTERNAL EXAMINER



ACKNOWLEDGEMENTS

I deem it a great privilege to express my sincere and profound thanks to my project supervisor/guide **Dr. N.THYAGARAJU, M.com, M.Phil., Ph.D., Assistant Professor, Department of Commerce, GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)GUNTUR, GUNTUR DIST-AP.** Who has whole heartedly encouraged and extended consistent guidance in successful completion of project work.

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Last, but certainly not the least, I am indebted to my friends, Parents and all my family members for their immeasurable love and affection, without their blessings or grace, I couldn't have finished this project under stipulated time and with focused vision.

Place: REPALLE

Date:

Name of the Candidate: P.AMBIKA

Registration No :19201043

Semester No :V

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ACKNOWLEDGEMENTS

I deem it a great privilege to express my sincere and profound thanks to my project supervisor/guide **Dr. N.THYAGARAJU, M.com, M.Phil., Ph.D., Assistant Professor, Department of Commerce, GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)GUNTUR, GUNTUR DIST-AP.** Who has whole heartedly encouraged and extended consistent guidance in successful completion of project work.

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Place: REPALLE

Date:

Name of the Candidate: **D.KAVYA**

Registration No :19201013

Semester No :V

Name of the College
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Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001



ACKNOWLEDGEMENTS

I deem it a great privilege to express my sincere and profound thanks to my project supervisor/guide **Dr. N.THYAGARAJU, M.com, M.Phil., Ph.D., Assistant Professor, Department of Commerce, GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)GUNTUR, GUNTUR DIST-AP.** Who has whole heartedly encouraged and extended consistent guidance in successful completion of project work.

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Place:

Date:

Name of the Candidate: P.SARASWATHI

Registration No :19201037 Semester No :V

**Name of the College
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Sambasivapet, Guntur Dist-522001**



ACKNOWLEDGEMENTS

I deem it a great privilege to express my sincere and profound thanks to my project supervisor/guide **Dr. N.THYAGARAJU, M.com, M.Phil., Ph.D., Assistant Professor, Department of Commerce , GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)GUNTUR, GUNTUR DIST-AP.** Who has whole heartedly encouraged and extended consistent guidance in successful completion of project work.

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Place: REPALLE

Date:

Name of the Candidate: J.YAMUNA

Registration No :19201016

Semester No :V

**Name of the College
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ACKNOWLEDGEMENTS

I deem it a great privilege to express my sincere and profound thanks to my project supervisor/guide **Dr. N.THYAGARAJU, M.com, M.Phil., Ph.D., Assistant Professor, Department of Commerce, GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)GUNTUR, GUNTUR DIST-AP.** Who has whole heartedly encouraged and extended consistent guidance in successful completion of project work.

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Place: REPALLE

Date:

Name of the Candidate:**B.LOICE**

Registration No :**19201008**

Semester No :**V**

Name of the College
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CONTENTS OF THE PROJECT WORK

CHAPTER-I: INTRODUCTION

- Introduction
- Growth and Development of Banking System in India
- Functions of Commercial banks in India
- Impact of reforms on Banking sector in India

CHAPTER-II: OBJECTIVES AND METHODOLOGY

- Objectives of the student Project
- Problem identification
- Need of the student Project
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 - (A) Sources of Data
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 - (E) Limitations of the student Project

CHAPTER-III: PROFILE OF THE BANK

Profile of the ANDHRA PRADESH, GUNTUR, PONNURU

- **CHAPTER-IV: DATA ANALYSIS AND INTREPRETATION**

CHAPTER-V: Findings, Suggestions, Conclusions

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“Status of women empowerment practices in Rural areas of Ponnuru”, Guntur Dist.)”

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(Submitted for B.Com (General) Degree in Banking /Insurance /Retailing/
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Submitted by

NAME OF THE STUDENT	REGISTRATION . NO.	SEMESTER
1.P.AMBIKA	19201043	V
2.D.KAVYA	19201013	V
3.P.SARASWATHI	19201037	V
4.J.YAMUNA	19201016	V
5.B.LOICE	19201008	V

Supervised by

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GUNTUR, GUNTUR DIST-AP



Month & Year of Submission

JANUARY, 2022



STUDENT'S DECLARATION

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NAME OF THE STUDENT	REGD.NO.	SEMESTER	Signature of the Student
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3.P.SARASWATHI	19201037	V	P. Saraswathi
4.J.YAMUNA	19201016	V	J. Yamuna
5.B.LOICE	19201008	V	B. Loice

Place: Repalle

Date:

Name of the College

DEPARTMENT OF COMMERCERCE

GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)

GUNTUR, GUNTUR DIST-AP



III. SUPERVISOR'S CERTIFICATE

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GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP


SIGNATURE OF THE SUPERVISOR &
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ce: GUNTUR

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Place: REPALLE

Date:

Name of the Candidate: P.AMBIKA

Registration No :19201043

Semester No :V

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Sambasivapet, Guntur Dist-522001



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Place: REPALLE

Date:

Name of the Candidate: **D.KAVYA**

Registration No :19201013

Semester No :V

Name of the College
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Sambasivapet , Guntur Dist-522001



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Place:

Date:

Name of the Candidate: P.SARASWATHI

Registration No :19201037 Semester No :V

**Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet, Guntur Dist-522001**



ACKNOWLEDGEMENTS

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Place: REPALLE

Date:

Name of the Candidate: J.YAMUNA

Registration No :19201016

Semester No :V

**Name of the College
Department of Commerce
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ACKNOWLEDGEMENTS

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Place: REPALLE

Date:

Name of the Candidate: **B.LOICE**

Registration No : **19201008**

Semester No : **V**

Name of the College
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Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001

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College copy

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Govt. College for Women
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College with Potential for Excellence

(Submitted for B.Com (General) Degree in Banking /Insurance /Retailing/
Taxation under AcharyaNagarjuna University 2019-2022)

Submitted by

NAME OF THE STUDENT	REGISTRATION . NO.	SEMESTER
1.K.VEDA VARSHINI	19203015	V K. Veda Varshini
2.K.DWARAKA	19203010	V K. Dwarka
3.K.SIRISHA	19203013	V K. Sirisha
4.K.ANUSHA	19203012	V K. Anusha
5.S.MYTHILI	19203024	V S. Mythili

Supervised by

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Month & Year of Submission
JANUARY, 2022



STUDENT'S DECLARATION

" I/we declare that the project work/report entitled, A STUDENT PROJECT WORK ON "CUSTOMER SATISFACTION ON ATM SERVICE USERS OF COMMERCIAL BANKS- A CASE STUDY(Special reference to STATE BANK OF INDIA, Arundalpet, Guntur Dist.)" is a record of independent/team work carried out by me/us under the guidance of Dr.N.THYAGARAJU ., M.Com., M.Phil.,Ph.D.,M.A(Eco) Assistant Professor, Department of Commerce, Government College for Women(Autonomous), Guntur, GUNTUR Dist, AP.

I/we also declare that this project report/work is a result of my/our own effort and was not submitted to this or to any other University earlier, for the award of any degree or diploma.

NAME OF THE STUDENT	REGD.NO.	SEMESTER	Signature of the Student
K.VEDA VARSHINI	19203015	V	K. Veda Varshini
K.DWARAKA	19203010	V	K. Dwarka
K.SIRISHA	19203013	V	K. Sirisha
K.ANUSHA	19203012	V	K. Anusha
S.MYTHILI	19203024	V	S. Mythili

Place: Repalle

Date:

Name of the College
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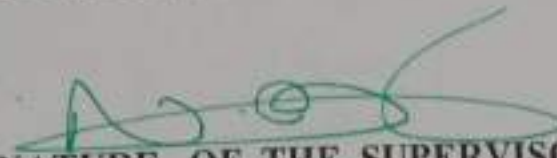
III. SUPERVISOR'S CERTIFICATE

This is to certify that **K.VEDA VARSHINI (19203015)** is a student of **B.Com (General) Degree in Banking of Government College for Women (Autonomous), GUNTUR dist.**, Affiliated to Acharya Nagarjuna University, has worked under my Supervision and Guidance for her Project work and prepared a Project Report "A Student Project work on Customer satisfaction on "ATM service" users of Commercial banks- A case study(State Bank of India, Gundalpet Branch, Guntur dt.)" Which he is submitting his genuine and original work to the best of my knowledge.


Name of the Supervisor

DR.N. THYAGARAJU

**Assistant Professor, Department of Commerce
Government College for Women (Autonomous)
GUNTUR, GUNTUR DIST-AP**


**SIGNATURE OF THE SUPERVISOR &
INTERNAL EXAMINER**

Date:


SIGNATURE OF THE EXTERNAL EXAMINER



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Place: **GUNTUR**

Date:

Name of the Candidate: K.VEDA VARSHINI

Registration No : 19203015

Semester No :V

**Name of the College
Department of Commerce
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Sambasivapet,Guntur Dist-522001**



ACKNOWLEDGEMENTS

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Place: GUNTUR

Date:

Name of the Candidate: K.DWARAKA

Registration No : 19203010

Semester No : V

**Name of the College
Department of Commerce
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Sambasivapet , Guntur Dist-522001**



ACKNOWLEDGEMENTS

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Place: **GUNTUR**

Date:

Name of the Candidate: **K.SIRISHA**

Registration No :**19203013** Semester No :**V**

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001



ACKNOWLEDGEMENTS

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Place: **GUNTUR**

Date:

Name of the Candidate: **K.ANUSHA**

Registration No : **19203012** Semester No :**V**

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ACKNOWLEDGEMENTS

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Place: GUNTUR

Date:

Name of the Candidate: S.MYTHILI

Registration No : 19203024

Semester No :V

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet, Guntur Dist-522001

CONTENTS OF THE PROJECT WORK

CHAPTER-I: INTRODUCTION

- Introduction
- Growth and Development of Banking System in India
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 - (E)Limitations of the student Project

CHAPTER-III: PROFILE OF THE BANK

- Profile of the State Bank of India

CHAPTER-IV: DATA ANALYSIS AND INTREPRETATION

CHAPTER-V: Findings, Suggestions, Conclusions

❖ BIBLIOGRAPHY

ANNEXURES:

Questionnaire Addressed to
Customer Satisfaction on "ATM SERVICE" users of
Commercial banks- A case study
(State bank of india , Arundalpet branch, GUNTUR DIST.)"

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**A STUDENT PROJECT WORK ON
"CUSTOMER SATISFACTION ON ATM SERVICE USERS OF
COMMERCIAL BANKS- A CASE STUDY
(Special reference to AXIS BANK , Lakshmipuram, Guntur Dist.)"**



**Govt. College for Women
(AUTONOMOUS) - GUNTUR. 1942 (Estd.)
College with Potential for Excellence**

(Submitted for B.Com (General) Degree in Banking /Insurance /Retailing/
Taxation under Acharya Nagarjuna University 2019-2022)

Submitted by

NAME OF THE STUDENT	REGISTRATION . NO.	SEMESTER
1.O.MOHINI SOWJANYA	19203021	V
2.SK.KARISHMA	19203021	V
3.N.JAYASRI	19203021	V
4.M.DHARANI	19203021	V

Supervised by

DR.N. THYAGARAJU.
ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE
GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP



Month & Year of Submission
JANUARY, 2022

A STUDENT PROJECT WORK ON
"CUSTOMER SATISFACTION ON ATM SERVICE USERS OF
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Submitted by

NAME OF THE STUDENT	REGISTRATION . NO.	SEMESTER
1.O.MOHINI SOWJANYA	19203021	V - O.Mohini Sowmya
2.SK.KARISHMA	19203026	V - SK. Karishma.
3.N.JAYASRI	19203019	V - N. Jayasri
4.M.DHARANI	19203018	V - M. Dharaani

Supervised by

DR.N. THYAGARAJU.

ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE
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Month & Year of Submission
JANUARY, 2022



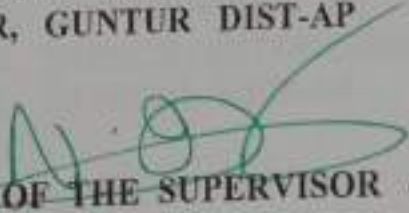
III.SUPERVISOR'S CERTIFICATE


This is to certify that **O.MOHINI SOWJANYA (19203021)** is a student of **B.Com (General) Degree in Banking** in **GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), GUNTUR DIST.,,** affiliated to Acharya Nagarjuna University, has worked under my Supervision and Guidance for her Project work and prepared a project Report **A STUDENT PROJECT WORK ON "CUSTOMER SATISFACTION ON ATM SERVICE USERS OF COMMERCIAL BANKS- A CASE STUDY(Special reference to AXIS BANK , Lakshmipuram, Guntur Dist.)"**Which he is submitting his genuine and original work to the best of my knowledge.

Name of the Supervisor

DR.N. THYAGARAJU.

ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE
GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP


SIGNATURE OF THE SUPERVISOR &
INTERNAL EXAMINER

Place: _____
Date: _____

SIGNATURE OF THE EXTERNAL EXAMINER



ACKNOWLEDGEMENTS

I deem it a great privilege to express my sincere and profound thanks to my project supervisor/guide **Dr. N.THYAGARAJU, M.com, M.Phil, Ph.D., Assistant Professor Department of Commerce GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), GUNTUR DIST.,** Who has whole heartedly encouraged and extended consistent guidance in successful completion of project work.

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Place: REPALLE

Date:

Name of the Candidate: O.MOHINI SOWJANYA

Registration No : 19203021

Semester No :V

Name of the College
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Sambasivapet , Guntur Dist-522001



ACKNOWLEDGEMENTS

I deem it a great privilege to express my sincere and profound thanks to my project supervisor/guide **Dr. N.THYAGARAJU, M.com, M.Phil., Ph.D., Assistant Professor Department of Commerce GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), GUNTUR DIST.,,** Who has whole heartedly encouraged and extended consistent guidance in successful completion of project work.

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Place: REPALLE

Date:

Name of the Candidate: SK.KARISHMA

Registration No :19203026

Semester No :VI

**Name of the College
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Sambasivapet , Guntur Dist-522001**



ACKNOWLEDGEMENTS

I deem it a great privilege to express my sincere and profound thanks to my project supervisor/guide **Dr. N.THYAGARAJU, M.com, M.Phil., Ph.D., Assistant Professor Department of Commerce GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), GUNTUR DIST.,,,,,** Who has whole heartedly encouraged and extended consistent guidance in successful completion of project work.

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Place:

Date:

Name of the Candidate: **N.JAYASRI**

Registration No : **19203019** Semester No :**V**

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001



ACKNOWLEDGEMENTS

I deem it a great privilege to express my sincere and profound thanks to my project supervisor/guide **Dr. N.THYAGARAJU, M.com, M.Phil., Ph.D., Assistant Professor Department of Commerce GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), GUNTUR DIST.,** Who has whole heartedly encouraged and extended consistent guidance in successful completion of project work.

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Place: REPALLE

Date:

Name of the Candidate: M.DHARANI

Registration No : 19203018

Semester No :V

**Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001**

CHAPTER-I: INTRODUCTION

- Introduction
- Growth and Development of Banking System in India
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 - (E) Limitations of the student Project

CHAPTER-III: PROFILE OF THE BANK

- Profile of the **AXIS BANK BANK**

CHAPTER-IV: DATA ANALYSIS AND INTREPRETATION

CHAPTER-V: Findings, Suggestions, Conclusions

❖ BIBLIOGRAPHY

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COMMERCIAL BANKS- A CASE STUDY
(Special reference to **AXIS BANK** , Lakshmipuram, Guntur Dist.)"**

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5
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A STUDENT PROJECT WORK ON
"CUSTOMER SATISFACTION ON HOME LOAN SERVICE OF
COMMERCIAL BANKS- A CASE STUDY
(Special reference to AXIS BANK , Kothapet, Guntur Dist.)"



Govt. College for Women
(AUTONOMOUS) - GUNTUR. 1942 (Estd.)
College with Potential for Excellence

(Submitted for B.Com (General) Degree in Banking /Insurance /Retailing/
Taxation under Acharya Nagarjuna University 2019-2022)

Submitted by

NAME OF THE STUDENT	REGISTRATION . NO.	SEMESTER
1.P.KEERTHI	19201038	V
2.K.LAKSHMI MEGHANA	19201018	V
3.M.POOJITHA	19201028	V
4.M.NAGALAKSHMI	19201026	V
5.B.DIVYA	19201009	V

Supervised by

DR.N.THYAGARAJU.

ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE
GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP



Month & Year of Submission

JANUARY, 2022



STUDENT'S DECLARATION

" I/we declare that the project work/report entitled, **A STUDENT PROJECT WORK ON "CUSTOMER SATISFACTION ON HOME LOAN SERVICE OF COMMERCIAL BANKS- A CASE STUDY(Special reference to AXIS BANK , Kothapet, Guntur Dist.)"** is a record of independent/team work carried out by me/us under the guidance of **Dr. N. THYAGARAJU.,M.Com.,M.Phil., Ph.D.,M.A(Eco) Assistant Professor, Department Of Commerce, Government College For women,(Autonomous)GUNTUR, GUNTUR DIST-AP**

I/we also declare that this project report/work is a result of my/our own effort and was not submitted to this or to any other University earlier, for the award of any degree or diploma.

NAME OF THE STUDENT	REGD.NO.	SEMESTER	Signature of the Student
1.P.KEERTHI	19201038	V	P. Keerthi
2.K.LAKSHMI MEGHANA	19201018	V	K Sri Lakshmi meghana
3.M.POOJITHA	19201028	V	M. Poojitha
4.M.NAGALAKSHMI	19201026	V	M. Nagalakshmi
5.B.DIVYA	19201009	V	B. Divya

Place:

Date:

Name of the College
DEPARTMENT OF COMMERCER
GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP



III.SUPERVISOR'S CERTIFICATE

This is to certify that **P.KEERTHI (19201038)** is a student of B.Com (General) Degree in **GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), GUNTUR DIST.**, , Affiliated to Acharya Nagarjuna University, has worked under my Supervision and Guidance for his Project work and prepared a project Report **A STUDENT PROJECT WORK ON"CUSTOMER SATISFACTION ON HOME LOAN SERVICE OF COMMERCIAL BANKS- A CASE STUDY(Special reference to AXIS BANK OF INDIA, Kothapet, Guntur Dist.)"** Which he is submitting his genuine and original work to the best of my knowledge.

Name of the Supervisor

DR.N. THYAGARAJU.

**ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE
GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP**

**SIGNATURE OF THE SUPERVISOR &
INTERNAL EXAMINER**

Place: GUNTUR

Date:

SIGNATURE OF THE EXTERNAL EXAMINER



ACKNOWLEDGEMENTS

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Place: **GUNTUR**

Date:

Name of the Candidate: P.KEERTHI

Registration No : 19201038

Semester No :V

**Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001**



ACKNOWLEDGEMENTS

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Place GUNTUR

Date:

Name of the Candidate: K.LAKSHMI MEGHANA

Registration No : 19201018

Semester No :V

**Name of the College
Department of Commerce
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Sambasivapet , Guntur Dist-522001**



ACKNOWLEDGEMENTS

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Place: **GUNTUR**

Date:

Name of the Candidate: **M.POOJITHA**

Registration No : **19201028** Semester No :**V**

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001



ACKNOWLEDGEMENTS

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Place: GUNTUR

Date:

Name of the Candidate: **M.NAGA LAKSHMI**

Registration No : 19201026

Semester No :V

Name of the College
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ACKNOWLEDGEMENTS

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Place: GUNTUR

Date:

Name of the Candidate: B.DIVYA

Registration No : 19201009

Semester No :V

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001

CONTENTS OF THE PROJECT WORK

CHAPTER-I: INTRODUCTION

- Introduction
- Growth and Development of Banking System in India
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- Need of the student Project
- Methodology of the student Project
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 - (B)Period of study student Project
 - (C)Scope of the student Project
 - (E)Limitations of the student Project

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CHAPTER-V: Findings, Suggestions, Conclusions

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COMMERCIAL BANKS- A CASE STUDYK(Special reference to AXIS
BANK OF INDIA, Kothapet , Guntur Dist.)"**



STUDENT'S DECLARATION

" I/we declare that the project work/report entitled, **A STUDENT PROJECT WORK ON "CUSTOMER SATISFACTION ON HOME LOAN SERVICE OF COMMERCIAL BANKS- A CASE STUDY (Special reference to HDFC BANK, Arundalpet , Guntur Dist.)"** is a record of independent/team work carried out by me/us under the guidance of **Dr. N. THYAGARAJU ,M.Com., M.Phil.,Ph.D.,M.A(Eco) ,Assistant Professor, Department of Commerce, Government College For women,(Autonomous)GUNTUR, GUNTUR DIST-AP**

I/we also declare that this project report/work is a result of my/our own effort and was not submitted to this or to any other University earlier, for the award of any degree or diploma.

NAME OF THE STUDENT	REGD.NO.	SEMESTER	Signature of the Student
1.NAGA LAKSHMI	19201057	V	V. NAGA LAKSHMI
2.MARY RANI	19201058	V	Y. MARY RANI
3.P.VYDEHI	19201041	V	P. vydehi
4.K.SWATHI	19201020	V	K. SWATHI
5.N.GEETHIKA	19201032	V	N. GEETHIKA

Place: Repalle

Date:

Name of the College
DEPARTMENT OF COMMERC
GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)
GUNTUR, GUNTUR DIST-AP



III.SUPERVISOR'S CERTIFICATE

This is to certify V.NAGALAKSHMI (19201057) is a student of B.Com(General) Degree in Banking in GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), GUNTUR DIST., , Affiliated to Acharya Nagarjuna University, has worked under my Supervision and Guidance for his Project work and prepared a **A STUDENT PROJECT WORK ON"CUSTOMER SATISFACTION ON HOME LOAN SERVICE OF COMMERCIAL BANKS- A CASE STUDY(Special reference to HDFC BANK OF INDIA,ARUNDALPET , Guntur Dist.)"** project Report Which he is submitting his genuine and original work to the best of my knowledge.

**Name of the Supervisor
DR.N. THYAGARAJU.**

ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCCE
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GUNTUR, GUNTUR DIST-AP

SIGNATURE OF THE SUPERVISOR &
INTERNAL EXAMINER

Place: GUNTUR

Date:

SIGNATURE OF THE EXTERNAL EXAMINER

H.No:- 19201041

A STUDENT PROJECT WORK ON
"CUSTOMER SATISFACTION ON HOME LOAN SERVICE OF
COMMERCIAL BANKS- A CASE STUDY
(Special reference to HDFC BANK, Arundalpet , Guntur Dist.)"



Govt. College for Women
(AUTONOMOUS) - GUNTUR. 1942 (Estd.)
College with Potential for Excellence

(Submitted for B.Com (General) Degree in Banking /Insurance /Retailing/
Taxation under Acharya Nagarjuna University 2019-2022)

Submitted by

NAME OF THE STUDENT	REGISTRATION . NO.	SEMESTER
1.NAGA LAKSHMI ✓.	19201057	V
2.MARY RANI γ.	19201058	V
3.P.VYDEHI	19201041	V
4.K.SWATHI	19201020	V
5.N.GEETHIKA	19201032	V

Supervised by

DR.N. THYAGARAJU.
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GUNTUR, GUNTUR DIST-AP



Month & Year of Submission

JANUARY, 2022



ACKNOWLEDGEMENTS

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Place: GUNTUR

Date:

Name of the Candidate: **V.NAGA LAKSHMI**

Registration No : 19201057

Semester No :V

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001



ACKNOWLEDGEMENTS

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Place: GUNTUR

Date:

Name of the Candidate: **Y. MARY RANI**

Registration No : 19201058

Semester No :V

**Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001**



ACKNOWLEDGEMENTS

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Place: **GUNTUR**

Date:

Name of the Candidate: **P.VYDEHI**

Registration No : **19201041** Semester No : **V**

Name of the College
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Sambasivapet , Guntur Dist-522001



ACKNOWLEDGEMENTS

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Last, but certainly not the least, I am indebted to my friends, Parents and all my family members for their immeasurable love and affection, without their blessings or grace, I couldn't have finished this project under stipulated time and with focused vision.

Place: **GUNTUR**

Date:

Name of the Candidate: **K.SWATHI**

Registration No : **19201020**

Semester No :**V**

**Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001**



ACKNOWLEDGEMENTS

I deem it a great privilege to express my sincere and profound thanks to my project supervisor/guide **Dr. N.THYAGARAJU, M.com, M.Phil., Ph.D., Assistant Professor Department of Commerce GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), GUNTUR DIST.,** Who has whole heartedly encouraged and extended consistent guidance in successful completion of project work.

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Place: GUNTUR

Date:

Name of the Candidate: N.GEETHIKA

Registration No : 19201032 Semester No :V

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001

CONTENTS OF THE PROJECT WORK

CHAPTER-I: INTRODUCTION

- Introduction.
- Growth and Development of Banking System in India
- Functions of Commercial banks in india
- Impact of reforms on Banking sector in India

CHAPTER-II: OBJECTIVES AND METHODOLOGY

- Objectives of the student Project
- Problem identification
- Need of the student Project
- Methodology of the student Project
 - (A)Sources of Data
 - (B)Period of study student Project
 - (C)Scope of the student Project
 - (E)Limitations of the student Project

CHAPTER-III: PROFILE OF THE BANK

- Profile of the HDFC Bank of India

CHAPTER-IV: DATA ANALYSIS AND INTREPRETATION

CHAPTER-V: Findings, Suggestions, Conclusions

❖ BIBLIOGRAPHY

ANNEXURES:

Questionnaire Addressed to
**"CUSTOMER SATISFACTION ON HOME LOAN SERVICE OF
COMMERCIAL BANKS- A CASE STUDY(Special reference to HDFC
BANK OF INDIA, Arundalpet, Guntur Dist.)"**

college
copy

7

A STUDENT PROJECT WORK ON
"CUSTOMER SATISFACTION ON VEHICLE LOAN SERVICES OF
COMMERCIAL BANKS- A CASE STUDY (Special reference to
STATE BANK OF INDIA , AMARAVATHI ROAD Branch, Guntur Dist.)



Govt. College for Women
(AUTONOMOUS) - GUNTUR, 1942 (Estd.)
College with Potential for Excellence

(Submitted for B.Com (General) Degree in Banking /Insurance /Retailing/
Taxation under Acharya Nagarjuna University 2019-2022)

Submitted by

NAME OF THE STUDENT	REGISTRATION . NO.	SEMESTER
1.SK.KAREEMA	19201047	VI
2.B.SWATHI	19201004	VI
3.A.ARUNA	19201001	VI
4.O.ARUNA	19201033	VI
5.B.KOKILA	19201006	VI

Supervised by

DR.N.THYAGA RAJU,
HEAD&ASSISTANT PROFESSOR,
DEPARTMENT OF COMMERCE
Government College For Women (Autonomous)
GUNTUR, GUNTUR DIST-AP



Month & Year of Submission

MAY, 2022



STUDENT'S DECLARATION

" I/we declare that the project work/report entitled, **A STUDENT PROJECT WORK ON "CUSTOMER SATISFACTION ON VEHICLE LOAN SERVICES OF COMMERCIAL BANKS - A CASE STUDY(Special reference to STATE BANK OF INDIA, AMARAVATHI ROAD Branch, Guntur Dist.)**" is a record of independent/team work carried out by me/us under the guidance of **Dr. N.THYAGARAJU, M.com, MBA.,M.Phil., Ph.D., Head& Assistant Professor Department of Commerce, GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS), GUNTUR DIST.,** I/we also declare that this project report/work is a result of my/our own effort and was not submitted to this or to any other University earlier, for the award of any degree or diploma.

NAME OF THE STUDENT	REGD.NO.	SEMESTER	Signature of the Student
1.SK.KAREEMA	19201047	VI	SK.Kareema
2.B.SWATHI BAI	19201004	VI	B.Sunthi Bai
3.A.ARUNA	19201001	VI	A. Aruna
4.O.ARUNA	19201033	VI	O. Aruna
5.B.KOKILA	19201006	VI	B.kokila

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001



III.SUPERVISOR'S CERTIFICATE

This is to certify that SK.KAREEMA(19201047) is a student of B.Com (Banking, Insurance) Degree in **Government College For Women (Autonomous) Sambasivapet, Guntur Dist-522001**, affiliated to Acharya Nagarjuna University, has worked under my Supervision and Guidance for her Project work and prepared a project Report **A STUDENT PROJECT WORK ON "CUSTOMER SATISFACTION ON VEHICLE LOAN SERVICES OF COMMERCIAL BANKS - A CASE STUDY(Special reference to STATE BANK OF INDIA, AMARAVATHI ROAD Branch, Guntur Dist)"** Which She is submitting her genuine and original work to the best of my knowledge.

Name of the Supervisor

DR.N. THYAGARAJU.

**HEAD&ASSISTANT PROFESSOR,
DEPARTMENT OF COMMERCE**

**Government College For Women (Autonomous)
GUNTUR, GUNTUR DIST-AP**

**SIGNATURE OF THE SUPERVISOR &
INTERNAL EXAMINER**

SIGNATURE OF THE EXTERNAL EXAMINER



ACKNOWLEDGEMENTS

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Place: GUNTUR

Name of the Candidate: **SK.KAREEMA**

Registration No : 19201047

Semester No : VI

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001



ACKNOWLEDGEMENTS

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Place: GUNTUR

Name of the Candidate: B.SWATHI

Registration No : 19201004

Semester No :VI

**Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001**



ACKNOWLEDGEMENTS

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Place: : GUNTUR

Name of the Candidate: A.ARUNA

Registration No : 19201001 Semester No :VI

**Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001**



ACKNOWLEDGEMENTS

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Place: : GUNTUR

Name of the Candidate: **O.ARUNA**

Registration No : 19201033 Semester No :VI

Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001



ACKNOWLEDGEMENTS

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Place: : GUNTUR

Name of the Candidate: B,KOKILA

Registration No : 19203006 Semester No :VI

**Name of the College
Department of Commerce
Government College For Women (Autonomous)
Sambasivapet , Guntur Dist-522001**

CONTENTS OF THE PROJECT WORK

CHAPTER-I: INTRODUCTION

- Introduction
- Growth and Development of Banking System in India
- Functions of Commercial banks in india
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- Profile of the STATE BANK OF INDIA

CHAPTER-IV: DATA ANALYSIS AND INTREPRETATION

CHAPTER-V: Findings, Suggestions, Conclusions

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VEHICLE LOAN SERVICE OF PRIVATE COMMERCIAL BANKS-A
CASE STUDY(Special reference to STATE BANK OF INDIA,
AMARAVATHI ROAD Branch, Guntur Dist.)"**



**GOVERNMENT COLLEGE FOR WOMEN (A),
GUNTUR**

INTERNSHIPS

2021-2022

April 30, 2022

Dr. D. Mallikarjuna Reddy

Assistant Professor
In-charge, Department of Chemistry
Govt. College for Women
Guntur - 522001
Andhra Pradesh, India

Sub: Letter for the internship acceptance

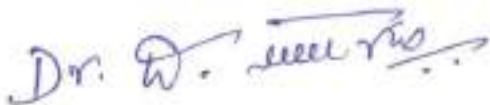
Dear Dr. D. Mallikarjuna Reddy,

This is with reference to your discussion and mail conversations, we are pleased to confirm the internship program for your students, Bommisetty Naga Sunitha, Gamalapati Divya, Kotturi Sri Divya, Diddi Sridevi and Mohammed Ayesha Roshanara for a period of one month, i.e. 05-05.2022 to 04-06-2022 at our organization, Arde's Laboratories, Research and Development Center, ALEAP industrial area, Gajularamaram, Hyderabad.

You are requested to join us on May 05, 2022. If you have any questions, please feel free to contact. Requested to submit the following documents at the time of joining,

- Passport size photographs 1 Nos.
- Photocopy of your testimonials
- Proof of date of birth
- Copy of official letter from the organization/institution/Mentor

All the very best from ARDE'S LABORATORIES LIMITED.



Dr. Devineni Subba Rao (Vice President)



Internship Certificate

To Whom It May Concern

This is to certify that Miss/Ms Divya Gamalapati, a student of Organic Chemistry, Government Degree College for Women, affiliated with Acharya Nagarjuna University, Guntur has successfully completed a one-month internship program (05 May 2022 to 04 June 2022) at our esteemed organization, Arde's Laboratories Private Limited, ALEAP Industrial Area, Gajularamaram – 500090, Hyderabad, Telangana State, India. During the period of her internship program, she has worked on the entitled "High-scale synthesis of a key Intermediate, 2-(Piperidin-4-yl)-1H-benzo[d]imidazole of second-generation antihistamine drug, Bilasitne". She is so hardworking, punctual, and inquisitive.

We wish her every success in life.

Dr Subba Rao Devineni

Dr. D. Subba Rao
Head of R & D 04/06/2022

Arde's Laboratories Private Limited



Internship Certificate

To Whom It May Concern

This is to certify that Miss/Ms Sridevi Diddi, a student of Organic Chemistry, Government Degree College for Women, affiliated with Acharya Nagarjuna University, Guntur has successfully completed a one-month internship program (05 May 2022 to 04 June 2022) at our esteemed organization, Arde's Laboratories Private Limited, ALEAP Industrial Area, Gajularamaram – 500090, Hyderabad, Telangana State, India. During the period of her internship program, she has worked on the entitled "High-scale synthesis of a key Intermediate, tert-butyl 4-(1H-benzo[d]imidazol-2-yl)piperidine-1-carboxylate of second-generation antihistamine drug, Bilasitne". She is so hardworking, punctual, and inquisitive.

We wish her every success in life.

Dr Subba Rao Devineni

Dr. S. R. Devineni
04/06/2022

Head of R & D

Arde's Laboratories Private Limited



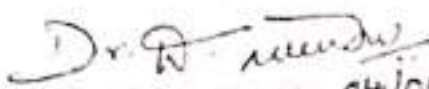
Internship Certificate

To Whom It May Concern

This is to certify that Miss/Ms Naga Sunitha Bommisetty, a student of Organic Chemistry, Government Degree College for Women, affiliated with Acharya Nagarjuna University, Guntur has successfully completed a one-month internship program (05 May 2022 to 04 June 2022) at our esteemed organization, Arde's Laboratories Private Limited, ALEAP Industrial Area, Gajularamaram - 500090, Hyderabad, Telangana State, India. During the period of her internship program, she has worked on the entitled "High-scale synthesis of a key Intermediate, (S)-3-(4-(5-bromo-2-chlorobenzyl)phenoxy)tetrahydrofuran of an Inhibitor of SGLT-2, Empagliflozin". She is so hardworking, punctual, and inquisitive.

We wish her every success in life.

Dr Subba Rao Devineni


Head of R & D 04/06/2022
Arde's Laboratories Private Limited

Internship Certificate

To Whom It May Concern

This is to certify that Miss/Ms Sri Divya Kotturi, a student of Organic Chemistry, Government Degree College for Women, affiliated with Acharya Nagarjuna University, Guntur has successfully completed a one-month internship program (05 May 2022 to 04 June 2022) at our esteemed organization, Arde's Laboratories Private Limited, ALEAP Industrial Area, Gajularamaram – 500090, Hyderabad, Telangana State, India. During the period of her internship program, she has worked on the entitled "High-scale synthesis of a key Intermediate, (5-Bromo-2-chlorophenyl)(4-fluorophenyl)methanone of an Inhibitor of SGLT-2, Empagliflozin". She is so hardworking, punctual, and inquisitive.

We wish her every success in life.

Dr Subba Rao Devineni

Dr. D. Subba Rao
04/06/2022

Head of R & D

Arde's Laboratories Private Limited



DAICEL CHIRAL TECHNOLOGIES
(INDIA) PRIVATE LIMITED
MEMBER OF DAICEL GROUP CORPORATION

June 15, 2022

PROJECT COMPLETION CERTIFICATE

This is to certify that Ms. Istharla Nandini M.Sc. (Organic Chemistry) student from Govt. College for Women, Guntur, has done her project work titled "Synthesis of Pyridoxine Analogue" in our Synthesis Research and Development Department from 04-May-2022 to 15-Jun-2022 as part of curriculum.

We have noticed that, during the period, she has shown keen interest in her assignments and was also regular in attendance.

For Daicel Chiral Technologies (India) Pvt Ltd

Ch. Lakshmi Narayana, Ph.
Managing Director





DAICEL CHIRAL TECHNOLOGIES
(INDIA) PRIVATE LIMITED
SUBSIDIARY OF **DAICEL** DAICEL CORPORATION

June 15, 2022

PROJECT COMPLETION CERTIFICATE

This is to certify that **Ms. Galla Aparna M.Sc. (Organic Chemistry)** student from Govt. College for Women, Guntur, has done her project work titled "**Synthesis of Ibuprofen**" in our Synthesis Research and Development Department from 04-May-2022 to 15-Jun-2022 as part of curriculum.

We have noticed that, during the period, she has shown keen interest in her assignments and was also regular in attendance.

For Daicel Chiral Technologies (India) Pvt Ltd

Ch. Lakshmi Narayana, Ph. D.
Managing Director





GOVERNMENT COLLEGE FOR WOMEN (AUTONOMOUS)

Sambasivapet, Guntur, A.P, India – 522 001

(College with Potential for Excellence)

Ph(Off) 0869 – 2220093, Fax: 0863 – 2230149

Email: idcollege.guntur@gmail.com, principal@gcwguntur.ac.in



4-4-2022
Guntur

From
Dr. V. R. Jyotsna Kumari
Principal
GCW(A), Guntur

To
The Director,
Centre for Forensic Science Laboratory,
Directorate of Forensic Science Services,
Ministry of Home Affairs,
Ramanthapur,
Hyderabad

Sub: Intimation of dates and list of students for the internship program

Respected sir,
Department of Chemistry of our college had approached you for an internship program for our students. Thank you very much for accepting our request and extending your expertise to our students. We are enclosing the list of students and the dates on which students will come to your esteemed Organisation for training. These dates are planned accordingly so that students will not loose any of their academic curriculum.

We are sending two batches of students from UG and PG courses. All of them have keen interest in academics and some of them are planning to take up Forensic Sciences as career.

PG batch will attend the internship from 5-5-2022 for a period of fifteen days.
Following is their list.

Sl. No.	NAME	CLASS	HALL TICKET NUMBER	MOBILE NUMBER	EMAIL.ID
TOXICOLOGY					
1	Kotha.Lakshmi Prasanna	MSc. Organic Chemistry	Y21CH1201 8	6300525624	lakshmiprasannakotha4@gmail.com
2	Chilaka.Sirisha	MSc. Organic Chemistry	Y21CH1200 2	9346471742	sirisha.chilaka1999@gmail.com
3	D.Venkateswaramma	MSc. Organic Chemistry	Y21CH1200 4	6305651810	venkateswarammadevalla12119@gmail.com
4	Katta Ratnakumari	MSc. Organic Chemistry	Y21CH1201 7	9398577644	ratnakumari8827@gmail.com
FORENSIC CHEMISTRY					
5	DV.Vijayalakshmi	MSc. Organic Chemistry	Y21CH1200 6	9347298588	dvvijayalakshmi90@gmail.com
6	K.Thirupatamma	MSc. Organic Chemistry	Y21CH1201 5	6305837339	thirukokolv12@gmail.com
7	M.Srividhya	MSc. Organic Chemistry	Y21CH1202 3	9063562805	srividhyamudhavath@gmail.com
8	Pokala Venkateswaramma	MSc. Organic Chemistry	Y21CH1202 4	6301565958	venkateswarammapokala@gmail.com
EXPLOSIVES					
9	V.Yashodha Lakshmi	MSc. Organic Chemistry	Y21CH1202 9	6302952070	yasoda.v99@gmail.com
10	I.Nandini	MSc. Organic Chemistry	Y21CH1201 4	630441512	ne709273@gmail.com
11	P.Ruth Shiny	MSc. Organic Chemistry	Y21CH1202 5	9573552668	prathipatiruthshiny@gmail.com

For further correspondence the In-charge of Department of Chemistry K. AparnaSeetharam will be in touch with you. Her phone number is 9392498871 and mail Id is vutukuru.aparna@gmail.com.

Thanking you.

Yours sincerely,

V.R. Seetharam
4/4/2022
(PRINCIPAL)

PRINCIPAL
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR.

ONLINE INTERNSHIP

ON



CLINICAL NUTRITION AND DIETETICS

REPORT ON INTERNSHIP

As a part of cluster for final years in Department of home science in VI semester the department is offering a course titled project (ONLINE INTERNSHIP ON NUTRITION & DIETETICS) for the academic year of 2021-22. The students attended from 14-March-2022 to 14-April-2022 where the students gain knowledge from field experience

This course was designed about 150 marks, 90 hours for practical classes at Government General Hospital and 60 hours for internal assessment at department.

In this paper the 150 marks divided as internal and external marks.

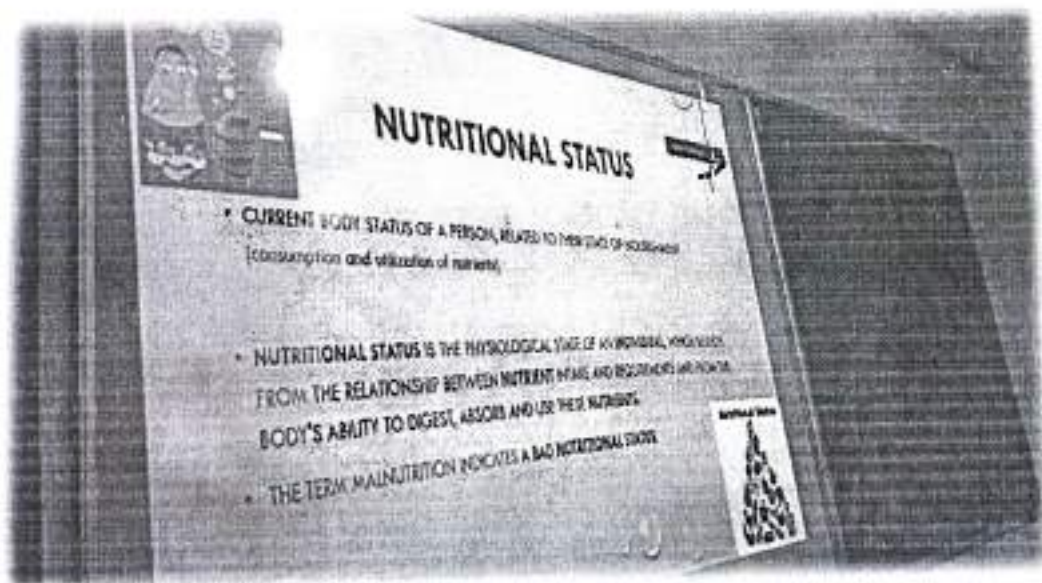
- 30marks are assigned for internal evaluation, that is 20marks on overall internship seminar, 5marks for assignment submission, & remaining 5marks for regularity in attending classes.
- 70marks are assigned for external evaluation, that is divided into 50marks for report writing on internship, remaining 20marks for overall performance evaluation
- 50marks are assigned for practical examination.

Participants	Final year students of B.sc home science (25)
Duration	One month
Date	14-March-2022 to 14-April-2022
Time	3.00pm To 4.00pm
Hours allotted	90hours
Marks	150marks 30marks – Internal assessment 70marks – External marks 50marks – Practical examination
Venue	Zoom web meetings
Resource persons	Dt.Prasanthi surya narayana Dt.Haritha Shyam Dt.Sujatha Stephen
Photographs	Annexure -I
Outcomes of the Programme	By the end of the course students could able to – <ul style="list-style-type: none"> • Learn diet counselling skills • Know believes and attitudes towards meal and food preferences through experiential learning • Learn different types of diseases and its causes. • Know the differences between theoretical and practical knowledge.

Photographs



Online Intern Class On Nutritional Assessment



Online Class On Nutritional Assessment Status



Online Internship Class In Virtual Classroom – Zoom V



A.D.I.M.E

ANALYSIS, DESIGN, IMPLEMENTATION, MAINTENANCE, EVALUATION

Feedback and improvement are essential for software quality and success. What is the best way to get feedback from users? Taylor, F. (2008). *Software Quality Engineering*. Boston: Morgan Kaufmann.



...the most important factor in determining the success of a project is the quality of the team. The team must be able to work together effectively, communicate clearly, and solve problems quickly. This requires a strong foundation of trust and respect among team members. The team leader must be able to inspire and motivate the team, and provide clear direction and support. The team must also be able to adapt to changing circumstances and work under pressure. Finally, the team must be able to learn from its mistakes and improve its performance over time.

Microsoft Project/MS Project
Microsoft Project is a project management software that helps you create, manage, and track projects. It allows you to define tasks, set dependencies, and allocate resources. You can also track progress, manage risks, and generate reports. Microsoft Project is available for Windows and Mac OS.

Microsoft Excel/MS Excel
Microsoft Excel is a spreadsheet software that allows you to organize, analyze, and present data. You can create tables, charts, and formulas. Excel is available for Windows and Mac OS.





Click to add title

- HISTORY OF PRESENT ILLNESS:**
- Approximate. Along with a diet, prior development gains, and attention associated a 12-months of
- non-progressive, non-fidious vomiting for a short
- period last year
- Consulted the local doctor, and received the
- top UP on the advice of subsequent doctor
- However, vomiting and developmental regression in progress, it is
- being followed for further evaluation and management
- HISTORY OF PAST ILLNESS:**
- G.I. Dyspepsia
- Diabetes Mellitus II

Sujatha Stephen's screen

CLASS BY DIETITIAN SUJATHA ST



STUDY

Compare with NAPPLE (non-progressive) to those without NAPPLE.

- significantly higher age
- BMI
- Adult obesity prevalence
- Insulin resistance
- Total cholesterol and triglycerides, and fasting lipoproteins
- Fasting plasma glucose

Study design: Prospective, analytical, observational. July 2013. Sample size: 1000. Outcome: BMI, waist circumference, fasting cholesterol, fasting triglycerides, fasting lipoproteins, and fasting plasma glucose. All outcomes were significantly higher in the NAPPLE group.



"Two-hit theory"

Etiogenesis of NAFID and NAFIT

- First hit - Accumulation of fatty acids in the liver
- Second hit - metabolic stress, malnutrition, infection, etc. and inflammation which ultimately cause liver damage
- Inflammatory cytokines and insulin resistance are closely associated with fatty liver leading to progression of NAFIT

Prasanthig 73's screen

Theory Class On Nafid

ibn-ovug-fvq

Sindhu

thiruvoo...

K.

Vineela

You

Ayesha 31 others

Call, Video, Screen Share, and Mute icons

THIS IS TO CERTIFY THAT

Gandi Ahalya

HAS COMPLETED ONE MONTH

ONLINE INTERNSHIP PROGRAM IN CLINICAL NUTRITION

14th March to 14th April 2022

WISHING THE VERY BEST IN ALL YOUR FUTURE ENDEAVOURS


Prashanth Srinivasan MD
Dietitian


Anu Shyam MD
Dietitian


Susha Srinivas MD
Dietitian

THIS IS TO CERTIFY THAT

Bolligorta sravani

HAS COMPLETED ONE MONTH

ONLINE INTERNSHIP PROGRAM IN CLINICAL NUTRITION

14th March to 14th April 2022

WISHING THE VERY BEST IN ALL YOUR FUTURE ENDEAVOURS


Prashanth Srinivasan MD
Dietitian


Anu Shyam MD
Dietitian


Susha Srinivas MD
Dietitian



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