

**NAVJIVAN SCIENCE COLLEGE ,DAHOD**  
**DEPARTMENT OF PHYSICS**  
**CERTIFICATE COURSE 2024-25**  
**BASIC CONCEPT OF ELECTRONICS**

**Course schedule:** There will be 1 clock hour of teaching every day for 30 days.

**Course Venue:** Navjivan science college, Dahod

**Course Duration:** 30 Days

**Eligible Students:** Any Student from F.Y. to T.Y. will be preferred

**Course Content : Basics of Electronics**

**UNIT:1 AMMETER, VOLTMETER, MULTIMETER**

Introduction, DC ammeter, multi range ammeter, RF ammeter, basic meter, Basic meter as a DC Voltmeter, Multi range Voltmeter, Multi meter, Multi meter Operating Instructions.

**UNIT:2 COMPUTER SKILLS**

Practice with MS office, Basic Microsoft Word, Basic Microsoft Excel, Use the internet, browse, create mail IDs, download desired data from internet using search engines.

**UNIT:3 Basic information of IC**

SMD (Soldering and De-soldering ) of various type of IC Packages, identify the defects , Construct and test simple electrical control circuits, prepare terminate and test various type of electronic cables used in various electronic systems.

**UNIT:4 SIGNAL GENERATORS**

Introduction, Fixed Frequency AF Oscillator, Variable AF Oscillator, Basic Standard Signal Generator, AF Sine & Square Wave Generator, Random Noise Generator.

**RECOMMENDED REFERENCE BOOKS:**

1. Electronic Instrumentation by H S KALSI
2. Rajiv Gandhi Youth Computer Shakshatra Mission
3. Integrated Circuits by K.R. Botkar





### Report of Certificate Course in Physics, 2024-25

The Certificate course in Physics was conducted by Navjivan Science College of Science from 01 January 2025 to 14 February 2025 in which 10 students from college actively participated. The duration of the teaching was 30 hrs. The course was aimed to clear the fundamental concepts of Electronics which the students skip during their graduation and post graduation. The objective of the course was to prepare quality graduates and post graduates so that they can meet the requirements of electrical industries and can be benefitted by greater job opportunities offered by eminent Solid state electronics industries of India.

#### **Key Topics Covered:**

##### **1. Atomic Structure and Electric Charge:**

- Introduction to atoms and their structure.
- Understanding electric charge and its properties.
- Concept of electrons, protons, and neutrons.

##### **2. Voltage, Current, and Resistance:**

- Definition of voltage, current, and resistance.
- Ohm's Law and its application.
- Series and parallel circuits.

##### **3. Basic Circuit Components:**

- Resistors: Types, color coding, and applications.
- Capacitors: Types, capacitance, and applications.
- Inductors: Types, inductance, and applications.

##### **4. Semiconductor Devices:**

- Introduction to semiconductors.
- Diodes: Characteristics, types, and applications.
- Transistors: Bipolar junction transistors (BJTs) and field-effect transistors (FETs).





## 5. **Electronic Circuit Analysis:**

- Kirchhoff's Laws and their application in circuit analysis.
- Node and mesh analysis techniques.
- Thevenin and Norton equivalent circuits.

## 6. **Digital Electronics:**

- Introduction to digital signals and binary numbering system.
- Logic gates: AND, OR, NOT, NAND, NOR, XOR, and XNOR gates.
- Combinational and sequential logic circuits.

**Delivery Method:** The course content is typically delivered through a combination of lectures, practical demonstrations, and hands-on lab sessions. Participants engage in theoretical learning supplemented by practical experiments to reinforce their understanding of electronic concepts.

**Assessment:** Assessment methods may include quizzes, assignments, lab reports, and a final examination to evaluate participants' comprehension of the course material.

**Conclusion:** The basics of electronics certificate course provides a comprehensive introduction to the foundational principles of electronics. Participants gain the knowledge and skills necessary to analyze simple electronic circuits and lay the groundwork for further study or application in various fields such as engineering, telecommunications, and automation.







# NAVJIVAN SCIENCE COLLEGE, DAHOD

Conducted by : Dahod Anaj Mahajan Sarvajanic Education Society, Dahod

Affiliated with Shri Govind Guru University, Godhra

Re-Accredited by NAAC with B grade with a CGPA of 2.31

Accredited "AAA" B Grade With a CGPA of 2.65

**Dr. G.J. Kharadi**

(Officiating Principal)

M.: 99796 62555

E-Mail : gaurangkharadi@yahoo.com

Ref. No.: 820/2024-25

Date : 26 / 03 / 2025

Ph. : (O) 94845 48232

E-mail : navjivan\_73@yahoo.co.in

Website : www.navjivansciencecollege.com

**Bridging the gap between industry and academics for better  
Job opportunity by learning basics, and doing practical and to**

**Know the world around you**

**Join**

## **CERTIFICATE COURSE IN PHYSICS**

Date: 01/01/2025 to 14/02/2025

(30 days, 1hr per Day)

Registration fees Rs. 250/- (Rs. Tow Fifty only)

Maximum intake of Students 15

Registration starts: 21/12/2024 to 31/12/2024

**Eligible students:** Any student from F. Y. to T. Y. will be preferred

Note: Registration forms will be available from college office from 21/12/2024  
OR Registration forms will be available from our college  
website [www.navjivansciencecollege.com](http://www.navjivansciencecollege.com) duly filled forms with fees should be  
submitted in our college office on or before Date: 31/12/2024. The detailed  
schedule of the course will be declared latter. All the participants will be given  
certificate on successfully completion of the course.

**For Further Details contact:**

(1) Dr. V.R.JAIN -9510617131 (Course Coordinator)

(2) Mr. MOHIT AGRAWAL- 9712551828

*[Signature]*  
Officiating Principal  
Navjivan Science College,  
DAHOD





# Navjivan Science College ,Dahod

Department of Physics

Certificate Course : Basic Concept of Electronics (2024-25)

## Attendance Report

Sr. No	Name	1/	2/	3/	4/	6/	7/	8/	9/	10/	11/	13/	1	17	20	21	22	23	24	25	28	29	30	31	4/	5/	8/	10	11	12	14/
1	BHABHOR ANKITKUMAR. R	P	P	P	P	P	P	P	P	P	P	P	6	1	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	BHABHOR DIVYABEN . C	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	LUHAR AAMIR . I	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	NIMACHIYA DURGESH . M	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P
5	PALAS ANUJBHAI . M	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	PATEL CHANHALBEN . N	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	PITHAYA RAHULBAI . S	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
8	RANA DHRUVI . J	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	SHEIKH MAHINURBANU. A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	SOLANKI JAYESHKUMAR . R	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P





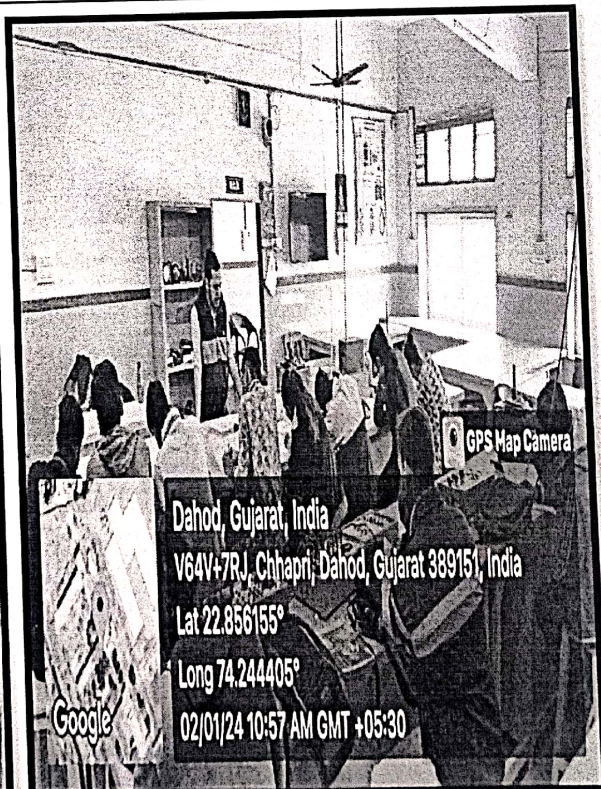
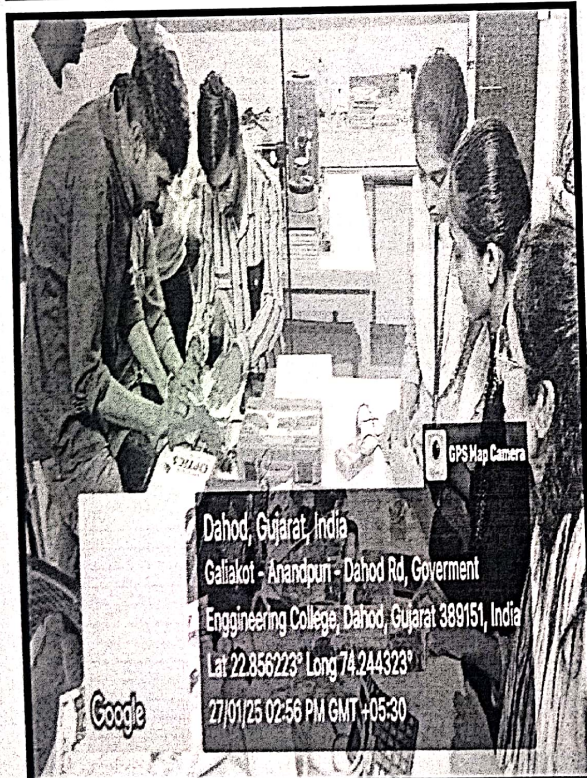
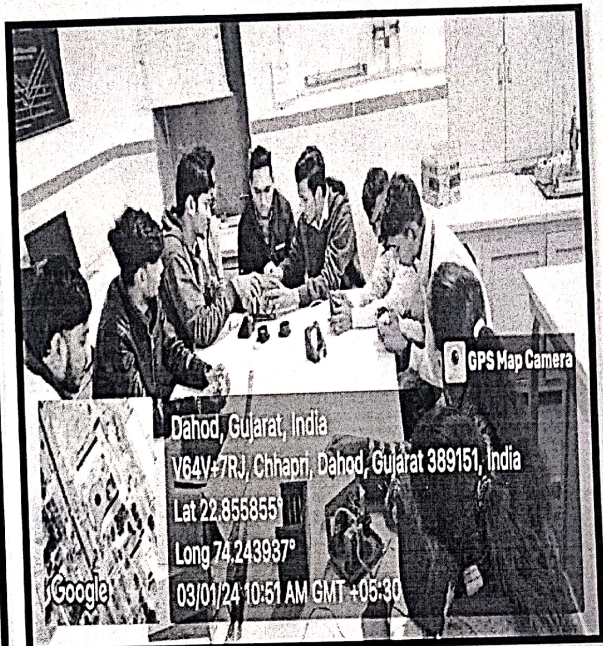
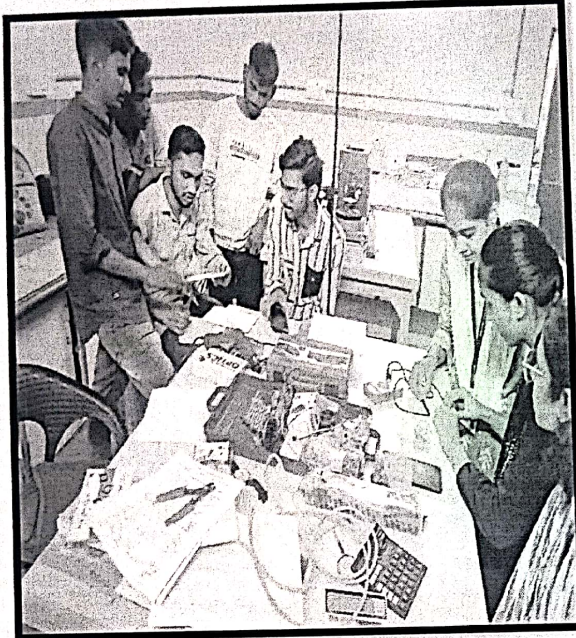
**MARKSHEET**

Sr.No	Name	SEM	MARKS	GRADE
1	BHABHOR ANKITKUMAR. R	VI	42	A
2	BHABHOR DIVYABEN . C	VI	40	A
3	LUHAR AAMIR . I	VI	50	A+
4	NIMACHIYA DURGESH . M	VI	40	A
5	PALAS ANUJBHAI . M	VI	42	A
6	PATEL CHANHALBEN . N	VI	48	A+
7	PITHAYA RAHULBAI . S	VI	42	A
8	RANA DHRUVI . J	VI	42	A
9	SHEIKH MAHINURBANU. A	VI	48	A+
10	SOLANKI JAYESHKUMAR . R	VI	50	A+





## Certificate Course in Physics



Head  
Department of Physics  
Navjivan Science College,  
DAHOD







# Navjivan Science College Dahod

(Conducted By : Dahod Anaj Mahajan Sarvajanic Education Society)

📍 Girdharnagar College Campus, Opp. Govt. Polytechnic college,  
Jhalod Road, Usarvan Dahod

## *Certificate of Participation*

This is to certify that Shri /Ku. SOLANKI JAYESHKUMAR RAJESHBHAI

student of Navjivan Science College, Dahod has Successfully completed 30 hours Certificate

Course in BASIC CONCEPT OF ELECTRONICS During the

academic year From 01/01/2025 To 14/02/2025 with Grade A+.

Place : DAHOD

Date : 12/3/2025

Dr. Vishal Jain  
Co-Ordinator

Mr. Mihir Shah  
Director, College Campus

Dr. Gaurang Kharadi  
Principal







# Navjivan Science College Dahod

(Conducted By : Dahod Anaj Mahajan Sarvajanik Education Society)

9 Girdhamagar College Campus, Opp. Govt. Polytechnic college,  
Jhalod Road, Usarvan Dahod

## Certificate of Participation

This is to certify that Shri/Ku. SHEIKH MAHINURBANU AJAMUDDIN

student of Navjivan Science College, Dahod has Successfully completed 30 hours Certificate

Course in Basic Concept of Electronics During the

academic year From 01/01/2025 To 14/02/2025 with Grade A+

Place : DAHOD

Date : 12/3/2025

Dr. Vishal Jain  
Co-Ordinator

Mr. Mihir Shah  
Director, College Campus

Dr. Gaurang Kharadi  
Principal







# Navjivan Science College Dahod

(Conducted By : Dahod Anaj Mahajan Sarvajanic Education Society)

📍 Girdharnagar College Campus, Opp. Govt. Polytechnic college,  
Jhalod Road, Usarvan Dahod

## *Certificate of Participation*

This is to certify that Shri/Ku. RAWA DHRUVI JAGRUTKUMAR

student of Navjivan Science College, Dahod has Successfully completed 30 hours Certificate

Course in BASIC CONCEPT OF ELECTRONICS During the

academic year From 01/01/2025 To 14/02/2025 with Grade A.

Place : DAHOD

Date : 12/3/2025

**Dr. Vishal Jain**  
Co-Ordinator

**Mr. Mihir Shah**  
Director, College Campus

**Dr. Gaurang Kharadi**  
Principal







# Navjivan Science College Dahod

(Conducted By : Dahod Anaj Mahajan Sarvajanik Education Society)

📍 Girdharnagar College Campus, Opp. Govt. Polytechnic college,  
Jhalod Road, Usarvan Dahod

## *Certificate of Participation*

This is to certify that Shri /Ku. PITHAYA RAHUL SHANTILAL

student of Navjivan Science College, Dahod has Successfully completed 30 hours Certificate

Course in BASIC CONCEPT OF ELECTRONICS During the

academic year From 01/01/2025 To 14/02/2025 with Grade A.

Place : DAHOD

Date : 12/3/2025

**Dr. Vishal Jain**  
Co-Ordinator

**Mr. Mihir Shah**  
Director, College Campus

**Dr. Gaurang Kharadi**  
Principal







# Navjivan Science College Dahod

(Conducted By : Dahod Anaj Mahajan Sarvajanic Education Society)

♀ Girdhamagar College Campus, Opp. Govt. Polytechnic college,  
Jhalod Road, Usarvan Dahod

## *Certificate of Participation*

This is to certify that Shri / Ku. PATEL CHANCHALBEN NARVATSINH

student of Navjivan Science College, Dahod has Successfully completed 30 hours Certificate

Course in Basic Concept of Electronics During the

academic year From 01/01/2025 To 14/02/2025 with Grade A+

Place : DAHOD

Date : 12/3/2025

Dr. Vishal Jain  
Co-Ordinator

Mr. Mihir Shah  
Director, College Campus

Dr. Gaurang Kharadi  
Principal







# Navjivan Science College Dahod

(Conducted By : Dahod Anaj Mahajan Sarvajanic Education Society)

📍 Girdharnagar College Campus, Opp. Govt. Polytechnic college,  
Jhalod Road, Usarvan Dahod

## *Certificate of Participation*

This is to certify that Shri/Ku. PALAS ANUT MANUBHAI

student of Navjivan Science College, Dahod has Successfully completed 30 hours Certificate

Course in Basic Concept of Electronics During the

academic year From 01/01/2025 To 14/02/2025 with Grade A.

Place : DAHOD

Date : 12/3/2025

**Dr. Vishal Jain**  
Co-Ordinator

**Mr. Mihir Shah**  
Director, College Campus

**Dr. Gaurang Kharadi**  
Principal





# Navjivan Science College Dahod

(Conducted By : Dahod Anaj Mahajan Sarvajanic Education Society)

📍 Girdharnagar College Campus, Opp. Govt. Polytechnic college,  
Jhalod Road, Usarvan Dahod

## *Certificate of Participation*

This is to certify that Shri /Ku. NIMACHIYA DURGESHBHAI DINESHBHAI

student of Navjivan Science College, Dahod has Successfully completed 30 hours Certificate

Course in Basic concept of Electronics During the

academic year From 01/01/2025 To 14/02/2025 with Grade A.

Place : DAHOD

Date : 12/3/2025

Dr. Vishal Jain  
Co-Ordinator

Mr. Mihir Shah  
Director, College Campus

Dr. Gaurang Kharadi  
Principal







# Navjivan Science College Dahod

(Conducted By : Dahod Anaj Mahajan Sarvajanic Education Society)

📍 Girdharnagar College Campus, Opp. Govt. Polytechnic college,  
Jhalod Road, Usarvan Dahod

## *Certificate of Participation*

This is to certify that Shri /Ku. LUHAR AAMIR IBRAHIM

student of Navjivan Science College, Dahod has Successfully completed 30 hours Certificate

Course in BASIC CONCEPT OF ELECTRONICS During the

academic year From 01/01/2025 To 14/02/2025 with Grade A+.

Place : DAHOD

Date : 12/3/2025

**Dr. Vishal Jain**  
Co-Ordinator

**Mr. Mihir Shah**  
Director, College Campus

**Dr. Gaurang Kharadi**  
Principal





# Navjivan Science College Dahod

(Conducted By : Dahod Anaj Mahajan Sarvajanic Education Society)

📍 Girdharnagar College Campus, Opp. Govt. Polytechnic college,  
Jhalod Road, Usarvan Dahod

## *Certificate of Participation*

This is to certify that Shri /Ku. BHABHOR DIVYABEN CHADRI BHAI

student of Navjivan Science College, Dahod has Successfully completed 30 hours Certificate

Course in Basic concept of Electronics During the

academic year From 01/01/2025 To 14/02/2025 with Grade A.

Place : DAHOD

Date : 12/3/2025

**Dr. Vishal Jain**  
Co-Ordinator

**Mr. Mihir Shah**  
Director, College Campus

**Dr. Gaurang Kharadi**  
Principal







# Navjivan Science College Dahod

(Conducted By : Dahod Anaj Mahajan Sarvajanic Education Society)

9 Girdharnagar College Campus, Opp. Govt. Polytechnic college,  
Jhalod Road, Usarvan Dahod

## *Certificate of Participation*

This is to certify that Shri /Ku. BHABHAR ANKITKUMAR RAJENDRABHAI

student of Navjivan Science College, Dahod has Successfully completed 30 hours Certificate

Course in Basic Concept of Electronics During the

academic year From 01/01/2025 To 14/02/2025 with Grade A.

Place : DAHOD

Date : 12/3/2025

**Dr. Vishal Jain**  
Co-Ordinator

**Mr. Mihir Shah**  
Director, College Campus

**Dr. Gaurang Kharadi**  
Principal

