

Department of Physics

2022-23

Certificate Course

On

***Microcontroller Programming and its Digital
Applications***

B.Sc. and M. Sc.

Department of Physics

Certificate Course

Microcontroller Programming and its Digital Applications

(COURSE PLANNER)

I. COURSE OVERVIEW:

To make the students understand Microprocessor in order to educate them with the necessary basic concepts in the field of Microprocessor & Microcontroller to be used in industries, research field and in commercial field applications.

II. PREREQUISITES:

- Computer Organization basics
- Computer Networks basics
- Number systems & digital logic design concepts
- Basic compilation process

III. COURSE OBJECTIVE:

- To develop an understanding of the operations of C and C++ programming

Objectives

- To get familiar with digital electronic circuits.
- To provide students with understanding of software and hardware functionalities of digital products.
- To get familiar with different chip programming techniques, languages and software.
- The course is oriented to those who want to advance structured and procedural programming understating and to improve product based implementation skills.
- Train their practical knowledge through lab experiments.
- This course provides practical requirements for embedded C chip programming.
- Learning a chip programming helps to understand embedded systems like ATMs, chocolate vending machines, ATVM etc. in an easy way.
- In almost every industry there is growing need for coding and circuit design knowledge this course will enhance professional credibility.
- Knowing a programming language opens up a lot of opportunities.
- If you do want to switch your career you can very well do that if you know key programming and circuit design skills.

Outcomes

- Extends knowledge and skills, preparing you for more job responsibilities. Ability to handle possible errors during program execution.
- After completing the course students will be able to easily understand coding in assembly languages.
- Ability to work with textual information, characters and strings.
- Ability to work with arrays of complex objects.
- After learning microcontroller 8051 programming students will be able to design any other advance level chip application like PIC, ARM, etc. easily and quickly.

Duration - 4 months 60 lectures (50 practical's and 10 theory)

Eligibility – Std. XII pass (science) / Diploma in Engineering /Degree in Science.

Fees – Rs. 300/- only

Intake Capacity – 40 Students

Total Marks – 100 Marks (40 Marks Theory Exam + 60 Marks Practical Works)

Course Content

➤ Introduction to chip programming-

Assembly language and embedded C, General architectures of chips.

➤ Basic electronic circuit design on breadboard

BJT, ADC, power supply, datasheet reading.

➤ PROTEUS circuit design – circuit design and embedded c coding on software.

➤ Projects –hands on training on digital devices making using 8051 microcontroller chip. Total 15+ projects.

After completion of this course exam will be conducted and course completion certificate will be provided to students.



Prof. B. K. Sakhare

**Head,
Department of Physics**



Dr. Kiran Save

Principal

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Proposal

Sonopant Dandekar Shikshan Mandali's
**SONOPANT DANDEKAR ARTS, V.S. APTE COMMERCE AND
M.H. MEHTA SCIENCE COLLEGE, Palghar.**

Department of Physics

Date: 01st August, 2022

To,
The Principal,
Sonopant Dandekar College, Palghar.

Subject: Regarding the permission to conduct Certificate Course entitled "Microprocessor & Microcontroller"

Respected Sir,

The Department of Physics to conduct Certificate Course entitled "Microprocessor & Microcontroller"

Objectives and Learning Outcomes -

- To get familiar with digital electronic circuits.
- To provide students with understanding of software and hardware functionalities of digital products.
- To get familiar with different chip programming techniques, languages and software.
- The course is oriented to those who want to advance structured and procedural programming understating and to improve product based implementation skills.
- Train their practical knowledge through lab experiments.
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- In almost every industry there is growing need for coding and circuit design knowledge this course will enhance professional credibility.

- Knowing a programming language opens up a lot of opportunities.
- If you do want to switch your career you can very well do that if you know key programming and circuit design skills.

Duration - 4 months 60 lectures (50 practical's and 10 theory)

Eligibility - Std. XII pass (science) / Diploma in Engineering / Degree in Science.

Fees - Rs. 300/- only

Intake Capacity - 40 Students

Total Marks - 100 Marks (40 Marks Theory Exam + 60 Marks Practical Works)

Kindly grant us permission and we look forward for your kind cooperation.

Thanking You,

Yours sincerely,

Prof. B. K. Sakhare





Sonopant Dandekar Shikshan Mandali's
Sonopant Dandekar Arts,
V. S. Apte Commerce &
M. H. Mehta Science College, Palghar

Estb.: 14 August 1968

Dr. Kiran Save, Principal

Kharekuran Road, Palghar (W), Tal. & Dist. Palghar,
Maharashtra - 401 404, INDIA
Tel. : +91 - 2525 - 252163
Principal : +91 - 2525 - 252317
Email : sdscollege@yahoo.com
Web. : www.sdscollege.com

Date: 05/08/2022

NOTICE

Department of Physics

Certificate Course

On

Microcontroller Programming and its Digital Applications

All Science Students of Senior College are hereby informed that Department of physics is commencing a Certificate Course in Microcontroller Programming and its Digital Applications from **25th August 2022**.

Enrollment for the above course should be done on or before 10-08-2022 through the Google form link given below.

For the payment of course Fee Rs.300/- payment link will be provided after the completion of registration process.

After successful completion of the course, Participants will get Certificate from College.

Google form link for the Registration:

https://docs.google.com/forms/d/e/1FAIpQLSdcMjN0KYcJ9mfgqtASxAnr_gISNZRUuWCByp2x0_tkfyin2g/viewform?usp=pp_url

Prof. B. K. Sakhare
Head Department of Physics

Dr. Kiran Save
Principal

S. D. Arts, V. S. Apte Commerce and M. H. Mehta Science College, Palghar
Department of Physics

Certificate Course

On

Microcontroller Programming and its Digital Applications

Program Report

Department of Physics, Sonopant Dandekar Arts College, V.S. Apte Commerce College and M.H. Mehta Science College, Palghar has taken Certificate course for Physics students on 25st August 2022. 40 participants were present for the same.

The aim of the coaching was to enhance the knowledge of the basic so that it will help the students to improve their studies.

The Coaching was conducted for a period of six month from 25th August 2022 through offline (Room No. 25).

Type of Activity	Topic	Commencement Date and Time	Place of Event	Coordinator	Number of Participants
Co – Curriculum	Certificate Course On Microcontroller Programming and its Digital Applications	25st August 2022 1:50 p.m. to 3:50 p.m.	Room No. 25	Prof. Sapna Jadhav	40



Prof. B. K. Sakhare

**Head,
Department of Physics**



Dr. Kiran Save

Principal

Brochure



Sonopant Dandekar Shikshan Mandali's
Sonopant Dandekar Arts, V.S.Apte Commerce
& M.H.Mehta Science College, Palghar

Kharekuran Rd. Palghar, Dist Palghar 401404 (M.S.)

Certificate Course
In
Microcontroller Programming & its Digital Applications Design
Organized by
DEPARTMENT OF PHYSICS

OBJECTIVES AND OUTCOMES

- To get familiar with electronic circuits.
- To design circuit according to one's need
Project based applications on digital electronics
- commonly used in day-to-day life.



ELIGIBILITY

Std.XI pass (science)
Diploma in Engineering / Degree in Science

COURSE DURATION:
4 Months

TOTAL SESSIONS:
60 Sessions

COURSE FEES:
300/-

SYLLABUS MODULES

Introduction to embedded C.

Proteus

Basic electronics components

Interfacing sensor

Digital instruments

Applications

REGISTRATION / ENQUIRY

Prof.B.K.Sakhare - 9665652975
Dr.S.B.Jadhav - 8169684857

Department of Physics
Sonopant Dandekar College, Palghar
bhimraos68@gmail.com / jadhav.sapna@yahoo.com

Microcontroller Chip Programming and it's Digital Applications

Certificate Course Syllabus and Expert Committee

Sr. No	Name	Designation
1	Dr. Kiran J. Save	Principal, Sonopant Dandekar College, Palghar
2	Prof. Mahesh Deshmukh	Vice-Principal, IQAC Co-ordinator
3	Dr. Tanaji J. Pol	Vice-Principal, Head, Dept. of Political Science
4	Dr. Harshad Vanmali	Administrative Supervisor
5	Prof. B.K.Sakhare	Head, Department of Physics
6	Dr. Sapna B. Jadhav	Course Coordinator, Department of Physics
7	Dr. T.N.Ghorude	Vice-Principal, Head Department of Physics, Member of BOS and FOS University of Mumbai
8	Prof. Nitesh Pawar	Software Programmer in TCS
9	Prof. Ashwin Bhagat	Head Department of Information Technology, SDSM college, Palghar

List of Subject Teachers / Expertise Faculty

Sr. No	Name of the Subject teacher / Expertise	Topics / subtopics to be teach
1	Prof. B.K.Sakhare Course coordinator and Head, Department of Physics	Basic concepts of electronics. Components, Circuit design, datasheet reading.
2	Dr. T.N.Ghorude Vice-Principal, Head Department of Physics, Member of BOS and FOS University of Mumbai	Introduction to integrated circuits and their architectures
3	Dr. S. B. Jadhav Assistant Professor, Dept. of Physics, Sonopant Dandekar Arts, V. S. Apte Commerce and M. H. Mehta Science College, 401404	Introduction to embedded C. Program debugging, microcontroller kit.
4	Prof. Utkarsha Save Assistant Professor, Dept. of Physics, Sonopant Dandekar Arts, V. S. Apte Commerce and M. H. Mehta Science College, 401404	Software used for circuit design, coding and program burning. PROTEUS, KEIL uvision, flash magic.
5	Prof. Tushar Patil Assistant Professor, Dept. of Computer Science,	Applied projects on interfacing basic electronic components

	Sonopant Dandekar Arts, V. S. Apte Commerce and M. H. Mehta Science College, 401404	
6	Prof. Ninad Patil Assistant Professor, Dept. of Physics, Sonopant Dandekar Arts, V. S. Apte Commerce and M. H. Mehta Science College, 401404	Application projects based on interfacing different sensors.
7	Prof. Vedant Vartak Assistant Professor, Dept. of Physics Sonopant Dandekar Arts, V. S. Apte Commerce and M. H. Mehta Science College, 401404	Application Projects based on making digital instruments.

Microcontroller Chip Programming and it's Digital Applications

Syllabus One Lecture = 60 Minutes			
Units	Particulars	No of Lectures	Total Lectures
Unit 1	Introduction to coding		
1.1	Basics concept of electronics	02	08
1.2	Power supply	03	
1.3	Basic electronic components	03	
Unit 2	Integrated Circuits (IC)		
2.1	Architectures of IC	03	08
2.2	8051 microcontroller basic functionalities	03	
2.3	Datasheet reading	02	
Unit 3	Introduction to embedded C		
3.1	Basic terms in language	02	10
3.2	Architectural requirements	02	

3.3	Keil uvision software (hex file creation)	02	
3.4	Program burning (using flash magic)	02	
3.5	Introduction to microcontroller kit	02	
Unit 4	PROTEUS		
4.1	Circuit design on simulator	02	10
4.2	Hex file uploading	02	
4.3	Simulator output checking	02	
4.4	LED lighting application	02	
4.5	Motor control application	02	
Unit 5	Basic electronic component interfacing		
5.1	Transistor, switches, op amp, 555, ADC.	03	08
5.2	Relay as driver circuit	03	
5.3	Water level indicator using BJT	02	

Unit 6	Sensor interfacing		
6.1	Digital thermometer, LED dimmer circuit	04	08
6.2	Object counter using photodiode, temperature and light monitoring	04	
Unit 7	Digital instrumentation applications		
7.1	Digital DC voltmeter, ammeter, electronic voting machine, digital visitor counter	04	08
7.2	Digital clock with alarm, digital calculator, remote control car	04	

*Note: Students must submit the Comprehensive Report of Course after the completion of the course

S. D. Arts, V. S. Apte Commerce and M. H. Mehta Science College, Palghar
Department of Physics

Time Table

Day	Thursday	Friday	Saturday
Time	1:50p.m. to 2:50p.m.	1:50p.m. to 2:50p.m.	1:50p.m. to 2:50p.m.
Topic	UNIT I /UNIT IV	UNIT II / UNIT VII/ UNIT III	UNIT V /UNIT VI
Speaker	Prof. B.K. Sakhare/ Prof. Utkarsha Save	Dr. T.N. Ghorude / Prof. Vedant Vartak/ Prof. Tushar Patil	Prof. Sapna Jadhav /Prof. Ninad Patil



Prof. B. K. Sakhare

**Head,
Department of Physics**



Dr. Kiran Save

Principal

Student Enrollment List

S. D. Arts, V. S. Apte Commerce and M. H. Mehta Science College, Palghar
Department of Physics

Student Enrollment List

Sr. No.	Name	Class
1	VIKAS KAKAD	M.Sc. I
2	PRATHMESH BHAGUL	M.Sc. I
3	PINKI HARIJAN	M.Sc. I
4	KAIKALA GAVALI	M.Sc. I
5	GURGAMATI KADU	M.Sc. I
6	ADESH BARAF	M.Sc. I
7	BHAVIK CHURI	M.Sc. I
8	RAJLAXMI TIWARI	M.Sc. I
9	KARTIK KOKITKAR	M.Sc. I
10	NITIN DESAI	M.Sc. I
11	TANESH WAGH	M.Sc. I
12	PRAMOD TUMBADER	M.Sc. I
13	JHA ASHISH JAYGOVIND	M.Sc. II
14	TAKTODE ROHINI BHUJANG	M.Sc. II
15	BENDAGA SANDESH LAXMAN	M.Sc. II
16	GOVARI VINOD VASANT	M.Sc. II
17	MACHHI KAUSHAL BHAGWAN	M.Sc. II
18	PATIL PRIYA RAMAKANT	M.Sc. II
19	MORE ERSHA DASHARATH	M.Sc. II
20	GANGURDE MUKUND SURESH	M.Sc. II
21	DONGARE RUTIKA ANUP	M.Sc. II
22	KARNIK PRAJAKTA RAJESH	M.Sc. II
23	THAKUR ADESH RAMCHANDRA	M.Sc. II
24	LAHANGE ARCHANA ANKUSH	M.Sc. II
25	GOVIND MAYUR BABALU	M.Sc. II
26	LULANIYA FIRDOUS ILIYAS	M.Sc. II
27	KADU GRINABH NARESH	M.Sc. II
28	DONGARKAR SUNIL JAYRAM	T.Y.B. Sc.
29	GHARAT SHREYA NARENDRA	T.Y.B. Sc.
30	GHATAL SUDHIR DATTA	T.Y.B. Sc.
31	GURODA SWAPNIL NANHU	T.Y.B. Sc.
32	HARAD YADNYESH SANJAY	T.Y.B. Sc.
33	JADHAV MONALI SHARAD	T.Y.B. Sc.
34	KOM SACHIN VISHNU	T.Y.B. Sc.
35	MACHHI ARYAN ANIL	T.Y.B. Sc.

36	OZARE AMIT KALURAM	
37	PAWADE SAHIL SANTOSH	T.Y.B. Sc.
38	SAMBARE AKASH BISTIR	
39	SOLANKI REKHA DHULSINGH	
40	WAVARE SAKSHI SANDIP	



Daily Attendance Report (2022)

Sr. No.	Class	Name	22/09	23/09	24/09	29/09	30/09	06/10	07/10	08/10
1	M.Sc. I	VIKAS KAKAD	P	P	A	P	P	P	P	P
2	M.Sc. I	PRATHMESH BHAGUL	P	P	P	P	P	P	P	A
3	M.Sc. I	PINKI HARIJAN	P	P	P	P	P	P	P	P
4	M.Sc. I	KAIKALA GAVALI	P	P	P	P	P	P	P	P
5	M.Sc. I	GURGAMATI KADU	P	P	A	P	P	P	P	P
6	M.Sc. I	ADESH BARAF	P	P	A	P	P	P	P	P
7	M.Sc. I	BHAVIK CHURI	P	P	P	P	P	A	A	A
8	M.Sc. I	RAJLAXMI TIWARI	P	P	A	A	P	P	P	P
9	M.Sc. I	KARTIK KOKITKAR	P	P	P	P	P	P	P	P
10	M.Sc. I	NITIN DESAI	P	P	P	P	P	P	P	P
11	M.Sc. I	TANESH WAGH	P	P	P	A	P	P	P	P
12	M.Sc. I	PRAMOD TUMBADER	P	P	P	P	P	P	P	P
13	M.Sc. II	JHA ASHISH JAYGOVIND	P	P	P	P	P	P	P	P
14	M.Sc. II	TAKTODE ROHINI BHUJANG	P	P	P	P	P	P	P	P
15	M.Sc. II	BENDAGA SANDESH LAXMAN	P	P	P	P	P	P	P	P
16	M.Sc. II	GOVARI VINOD VASANT	P	P	P	P	P	P	A	P
17	M.Sc. II	MACHHI KAUSHAL BHAGWAN	A	A	A	A	A	A	A	A
18	M.Sc. II	PATIL PRIYA RAMAKANT	P	P	P	P	P	P	P	P
19	M.Sc. II	MORE ERSHA DASHARATH	P	P	P	P	P	P	P	P
20	M.Sc. II	GANGURDE MUKUND SURESH	P	P	P	P	P	P	P	P
21	M.Sc. II	DONGARE RUTIKA ANUP	P	P	P	P	P	P	P	P
22	M.Sc. II	KARNIK PRAJAKTA RAJESH	P	P	P	P	P	P	P	P
23	M.Sc. II	THAKUR ADESH RAMCHANDRA	P	P	P	P	P	P	P	P
24	M.Sc. II	LAHANGE ARCHANA ANKUSH	P	P	A	P	P	P	P	P
25	M.Sc. II	GOVIND MAYUR BABALU	P	P	P	P	P	P	P	P
26	M.Sc. II	LULANIYA FIRDOUS ILIYAS	A	A	A	A	A	A	A	A
27	M.Sc. II	KADU GRINABH NARESH	P	P	P	P	P	P	P	P
28	T.Y.B. Sc.	DONGARKAR SUNIL JAYRAM	P	P	P	P	P	P	P	P
29	T.Y.B. Sc.	GHARAT SHREYA NARENDRA	P	P	A	P	P	P	P	A
30	T.Y.B. Sc.	GHATAL SUDHIR DATTA	P	P	P	P	P	P	P	P
31	T.Y.B. Sc.	GURODA SWAPNIL NANHU	P	A	P	P	P	P	P	P
32	T.Y.B. Sc.	HARAD YADNYESH SANJAY	P	P	P	P	P	P	P	P
33	T.Y.B. Sc.	JADHAV MONALI SHARAD	P	P	P	P	A	P	P	P
34	T.Y.B. Sc.	KOM SACHIN VISHNU	P	P	A	P	P	P	P	P
35	T.Y.B. Sc.	MACHHI ARYAN ANIL	A	A	A	A	A	A	A	A
36	T.Y.B. Sc.	OZARE AMIT KALURAM	P	P	P	P	A	P	P	P
37	T.Y.B. Sc.	PAWADE SAHIL SANTOSH	P	P	P	P	P	P	P	A
38	T.Y.B. Sc.	SAMBARE AKASH BISTIR	P	P	P	P	P	P	A	P
39	T.Y.B. Sc.	SOLANKI REKHA DHULSINGH	P	P	A	P	P	P	P	P
40	T.Y.B. Sc.	WAVARE SAKSHI SANDIP	P	P	P	P	A	P	P	P

Sr. No.	Class	Name	13/10	14/10	15/10	20/10	21/10	22/10	27/10	28/10
1	M.Sc. I	VIKAS KAKAD	P	P	P	P	P	P	P	A
2	M.Sc. I	PRATHMESH BHAGUL	P	P	P	P	P	P	P	P
3	M.Sc. I	PINKI HARIJAN	P	P	P	A	P	P	P	P
4	M.Sc. I	KAIKALA GAVALI	A	P	P	P	P	P	P	P
5	M.Sc. I	GURGAMATI KADU	P	P	P	P	P	P	P	P
6	M.Sc. I	ADESH BARAF	P	A	P	P	P	P	P	P
7	M.Sc. I	BHAVIK CHURI	P	P	P	P	P	P	P	P
8	M.Sc. I	RAJLAXMI TIWARI	P	A	P	P	P	P	P	P
9	M.Sc. I	KARTIK KOKITKAR	P	P	P	P	P	P	P	P
10	M.Sc. I	NITIN DESAI	P	P	P	P	P	P	P	P
11	M.Sc. I	TANESH WAGH	P	A	P	P	P	P	P	P
12	M.Sc. I	PRAMOD TUMBADER	P	A	P	P	P	P	P	P
13	M.Sc. II	JHA ASHISH JAYGOVIND	P	P	P	P	P	P	P	P
14	M.Sc. II	TAKTODE ROHINI BHUJANG	P	P	P	P	P	P	P	P
15	M.Sc. II	BENDAGA SANDESH LAXMAN	P	P	P	A	A	P	P	P
16	M.Sc. II	GOVARI VINOD VASANT	P	A	P	P	P	P	P	P
17	M.Sc. II	MACHHI KAUSHAL BHAGWAN	A	A	A	A	A	A	A	A
18	M.Sc. II	PATIL PRIYA RAMAKANT	P	P	P	P	P	P	P	P
19	M.Sc. II	MORE ERSHA DASHARATH	P	P	P	P	P	P	P	P
20	M.Sc. II	GANGURDE MUKUND SURESH	P	A	P	P	P	P	P	P
21	M.Sc. II	DONGARE RUTIKA ANUP	P	P	P	P	P	P	P	P
22	M.Sc. II	KARNIK PRAJAKTA RAJESH	P	P	P	P	P	P	P	P
23	M.Sc. II	THAKUR ADESH RAMCHANDRA	A	P	P	P	P	P	P	P
24	M.Sc. II	LAHANGE ARCHANA ANKUSH	P	P	P	P	P	P	P	P
25	M.Sc. II	GOVIND MAYUR BABALU	P	P	P	P	P	P	P	P
26	M.Sc. II	LULANIYA FIRDOUS ILIYAS	A	A	A	A	A	A	A	A
27	M.Sc. II	KADU GRINABH NARESH	P	P	P	P	P	P	P	P
28	T.Y.B. Sc.	DONGARKAR SUNIL JAYRAM	P	P	P	P	P	P	P	P
29	T.Y.B. Sc.	GHARAT SHREYA NARENDRA	P	P	P	P	P	P	P	P
30	T.Y.B. Sc.	GHATAL SUDHIR DATTA	P	A	P	P	P	P	P	P
31	T.Y.B. Sc.	GURODA SWAPNIL NANHU	P	A	P	P	P	P	P	P
32	T.Y.B. Sc.	HARAD YADNYESH SANJAY	P	A	P	P	P	P	P	P
33	T.Y.B. Sc.	JADHAV MONALI SHARAD	P	P	P	P	P	P	P	P
34	T.Y.B. Sc.	KOM SACHIN VISHNU	A	P	P	P	P	P	P	P
35	T.Y.B. Sc.	MACHHI ARYAN ANIL	A	A	A	A	A	A	A	A
36	T.Y.B. Sc.	OZARE AMIT KALURAM	P	P	P	P	P	P	P	P
37	T.Y.B. Sc.	PAWADE SAHIL SANTOSH	P	P	P	P	P	P	P	P
38	T.Y.B. Sc.	SAMBARE AKASH BISTIR	P	P	P	P	A	P	P	P
39	T.Y.B. Sc.	SOLANKI REKHA DHULSINGH	P	P	A	P	P	P	P	P
40	T.Y.B. Sc.	WAVARE SAKSHI SANDIP	P	P	P	A	P	P	P	P

Sr. No.	Class	Name	29/10	03/11	04/11	05/11	10/11	11/11	12/11	17/11
1	M.Sc. I	VIKAS KAKAD	P	P	P	P	P	A	P	P
2	M.Sc. I	PRATHMESH BHAGUL	P	P	P	P	P	P	P	P
3	M.Sc. I	PINKI HARIJAN	A	P	P	P	P	P	P	P
4	M.Sc. I	KAIKALA GAVALI	P	A	P	P	P	P	P	P
5	M.Sc. I	GURGAMATI KADU	P	P	A	P	P	P	P	P
6	M.Sc. I	ADESH BARAF	P	A	A	P	P	P	P	P
7	M.Sc. I	BHAVIK CHURI	P	P	P	A	P	P	P	P
8	M.Sc. I	RAJLAXMI TIWARI	P	P	P	P	P	A	A	P
9	M.Sc. I	KARTIK KOKITKAR	P	P	P	P	P	P	P	P
10	M.Sc. I	NITIN DESAI	P	P	P	P	P	P	P	P
11	M.Sc. I	TANESH WAGH	P	A	P	P	P	P	P	P
12	M.Sc. I	PRAMOD TUMBADER	P	A	P	P	P	P	P	P
13	M.Sc. II	JHA ASHISH JAYGOVIND	P	P	P	P	P	P	P	P
14	M.Sc. II	TAKTODE ROHINI BHUJANG	P	P	P	P	P	P	P	P
15	M.Sc. II	BENDAGA SANDESH LAXMAN	P	P	P	P	P	P	P	A
16	M.Sc. II	GOVARI VINOD VASANT	A	P	P	P	P	P	P	P
17	M.Sc. II	MACHHI KAUSHAL BHAGWAN	A	A	A	A	A	A	A	A
18	M.Sc. II	PATIL PRIYA RAMAKANT	P	A	P	P	P	P	P	P
19	M.Sc. II	MORE ERSHA DASHARATH	P	A	P	P	P	P	P	P
20	M.Sc. II	GANGURDE MUKUND SURESH	P	P	P	P	P	A	P	P
21	M.Sc. II	DONGARE RUTIKA ANUP	P	P	P	P	P	P	P	P
22	M.Sc. II	KARNIK PRAJAKTA RAJESH	P	P	P	P	P	P	P	P
23	M.Sc. II	THAKUR ADESH RAMCHANDRA	P	P	A	P	P	P	P	P
24	M.Sc. II	LAHANGE ARCHANA ANKUSH	P	P	P	P	P	P	P	P
25	M.Sc. II	GOVIND MAYUR BABALU	P	P	P	P	P	P	P	P
26	M.Sc. II	LULANIYA FIRDOUS ILIYAS	A	A	A	A	A	A	A	A
27	M.Sc. II	KADU GRINABH NARESH	P	P	P	P	P	P	P	P
28	T.Y.B. Sc.	DONGARKAR SUNIL JAYRAM	P	A	P	P	P	P	P	P
29	T.Y.B. Sc.	GHARAT SHREYA NARENDRA	P	P	P	P	P	P	P	P
30	T.Y.B. Sc.	GHATAL SUDHIR DATTA	P	A	P	A	P	P	P	P
31	T.Y.B. Sc.	GURODA SWAPNIL NANHU	P	P	P	P	P	A	P	P
32	T.Y.B. Sc.	HARAD YADNYESH SANJAY	P	P	P	A	P	P	P	P
33	T.Y.B. Sc.	JADHAV MONALI SHARAD	P	A	P	P	P	P	P	P
34	T.Y.B. Sc.	KOM SACHIN VISHNU	P	P	P	P	A	P	P	P
35	T.Y.B. Sc.	MACHHI ARYAN ANIL	A	A	A	A	A	A	A	A
36	T.Y.B. Sc.	OZARE AMIT KALURAM	A	P	P	P	P	P	P	P
37	T.Y.B. Sc.	PAWADE SAHIL SANTOSH	P	P	P	P	P	P	P	P
38	T.Y.B. Sc.	SAMBARE AKASH BISTIR	P	P	A	P	P	P	P	P
39	T.Y.B. Sc.	SOLANKI REKHA DHULSINGH	P	P	P	A	P	P	P	P
40	T.Y.B. Sc.	WAVARE SAKSHI SANDIP	P	P	P	P	P	P	P	P

Sr. No.	Class	Name	18/11	19/11	24/11	25/11	26/11	01/12	02/12	03/12
1	M.Sc. I	VIKAS KAKAD	A	P	P	P	P	P	P	P
2	M.Sc. I	PRATHMESH BHAGUL	P	P	P	P	P	P	P	P
3	M.Sc. I	PINKI HARIJAN	P	P	P	P	P	P	P	A
4	M.Sc. I	KAIKALA GAVALI	P	P	A	P	P	P	P	P
5	M.Sc. I	GURGAMATI KADU	P	A	P	P	P	P	P	P
6	M.Sc. I	ADESH BARAF	A	A	P	P	P	P	P	P
7	M.Sc. I	BHAVIK CHURI	P	A	P	P	P	P	P	P
8	M.Sc. I	RAJLAXMI TIWARI	P	P	P	A	P	P	A	P
9	M.Sc. I	KARTIK KOKITKAR	P	P	P	P	A	P	P	P
10	M.Sc. I	NITIN DESAI	P	P	P	P	P	P	P	P
11	M.Sc. I	TANESH WAGH	P	P	A	P	P	P	P	P
12	M.Sc. I	PRAMOD TUMBADER	P	P	P	P	A	P	P	P
13	M.Sc. II	JHA ASHISH JAYGOVIND	P	P	P	P	P	P	P	P
14	M.Sc. II	TAKTODE ROHINI BHUJANG	P	P	P	P	P	P	P	P
15	M.Sc. II	BENDAGA SANDESH LAXMAN	P	P	P	P	A	P	P	P
16	M.Sc. II	GOVARI VINOD VASANT	P	A	P	P	P	P	P	P
17	M.Sc. II	MACHHI KAUSHAL BHAGWAN	A	A	A	A	A	A	A	A
18	M.Sc. II	PATIL PRIYA RAMAKANT	P	P	P	P	P	P	P	P
19	M.Sc. II	MORE ERSHA DASHARATH	A	P	P	P	P	P	P	P
20	M.Sc. II	GANGURDE MUKUND SURESH	P	A	P	P	P	P	P	P
21	M.Sc. II	DONGARE RUTIKA ANUP	A	P	P	P	P	P	P	P
22	M.Sc. II	KARNIK PRAJAKTA RAJESH	P	P	P	P	A	P	P	P
23	M.Sc. II	THAKUR ADESH RAMCHANDRA	P	P	P	P	P	A	P	P
24	M.Sc. II	LAHANGE ARCHANA ANKUSH	P	A	P	P	P	P	P	P
25	M.Sc. II	GOVIND MAYUR BABALU	P	P	P	P	P	P	P	P
26	M.Sc. II	LULANIYA FIRDOUS ILIYAS	A	A	A	A	A	A	A	A
27	M.Sc. II	KADU GRINABH NARESH	P	P	P	P	P	P	P	P
28	T.Y.B. Sc.	DONGARKAR SUNIL JAYRAM	P	P	P	A	P	P	P	P
29	T.Y.B. Sc.	GHARAT SHREYA NARENDRA	P	P	P	P	P	P	P	P
30	T.Y.B. Sc.	GHATAL SUDHIR DATTA	A	A	A	P	P	P	P	P
31	T.Y.B. Sc.	GURODA SWAPNIL NANHU	P	P	P	A	P	P	P	P
32	T.Y.B. Sc.	HARAD YADNYESH SANJAY	P	P	P	P	A	P	P	P
33	T.Y.B. Sc.	JADHAV MONALI SHARAD	P	A	P	P	P	P	P	P
34	T.Y.B. Sc.	KOM SACHIN VISHNU	P	P	A	P	P	P	P	P
35	T.Y.B. Sc.	MACHHI ARYAN ANIL	A	A	A	A	A	A	A	A
36	T.Y.B. Sc.	OZARE AMIT KALURAM	A	P	P	P	P	P	P	P
37	T.Y.B. Sc.	PAWADE SAHIL SANTOSH	P	P	P	P	P	P	P	P
38	T.Y.B. Sc.	SAMBARE AKASH BISTIR	P	P	P	P	P	P	P	P
39	T.Y.B. Sc.	SOLANKI REKHA DHULSINGH	P	P	P	A	P	P	P	P
40	T.Y.B. Sc.	WAVARE SAKSHI SANDIP	P	P	P	A	P	P	P	P

Sr. No.	Class	Name	08/12	09/12	10/12	15/12	16/12	17/12	22/12	23/12
1	M.Sc. I	VIKAS KAKAD	P	P	P	P	P	P	P	P
2	M.Sc. I	PRATHMESH BHAGUL	P	P	P	P	P	P	P	P
3	M.Sc. I	PINKI HARIJAN	A	P	P	P	P	P	P	P
4	M.Sc. I	KAIKALA GAVALI	P	P	P	P	P	P	P	P
5	M.Sc. I	GURGAMATI KADU	A	P	P	P	P	P	P	P
6	M.Sc. I	ADESH BARAF	A	P	P	P	P	P	P	P
7	M.Sc. I	BHAVIK CHURI	A	P	P	P	A	P	P	P
8	M.Sc. I	RAJLAXMI TIWARI	A	P	P	A	P	P	P	P
9	M.Sc. I	KARTIK KOKITKAR	A	P	P	P	P	P	P	P
10	M.Sc. I	NITIN DESAI	P	P	P	P	P	P	P	P
11	M.Sc. I	TANESH WAGH	P	P	P	P	P	P	P	P
12	M.Sc. I	PRAMOD TUMBADER	A	A	P	P	P	P	P	P
13	M.Sc. II	JHA ASHISH JAYGOVIND	P	P	P	P	P	P	P	P
14	M.Sc. II	TAKTODE ROHINI BHUJANG	P	P	P	P	P	P	P	P
15	M.Sc. II	BENDAGA SANDESH LAXMAN	P	P	A	P	P	P	P	P
16	M.Sc. II	GOVARI VINOD VASANT	P	P	P	P	P	P	P	P
17	M.Sc. II	MACHHI KAUSHAL BHAGWAN	A	A	A	A	A	A	A	A
18	M.Sc. II	PATIL PRIYA RAMAKANT	P	P	P	P	P	P	P	P
19	M.Sc. II	MORE ERSHA DASHARATH	P	P	P	P	P	P	P	P
20	M.Sc. II	GANGURDE MUKUND SURESH	P	A	A	P	P	P	P	P
21	M.Sc. II	DONGARE RUTIKA ANUP	A	P	P	P	P	P	P	P
22	M.Sc. II	KARNIK PRAJAKTA RAJESH	A	P	P	P	P	P	P	P
23	M.Sc. II	THAKUR ADESH RAMCHANDRA	P	P	P	P	P	P	P	P
24	M.Sc. II	LAHANGE ARCHANA ANKUSH	P	P	P	A	P	P	P	P
25	M.Sc. II	GOVIND MAYUR BABALU	P	P	P	A	P	P	P	P
26	M.Sc. II	LULANIYA FIRDOUS ILIYAS	A	A	A	A	A	A	A	A
27	M.Sc. II	KADU GRINABH NARESH	A	P	P	P	P	P	P	P
28	T.Y.B. Sc.	DONGARKAR SUNIL JAYRAM	A	P	P	P	P	P	P	P
29	T.Y.B. Sc.	GHARAT SHREYA NARENDRA	P	P	P	A	P	P	P	P
30	T.Y.B. Sc.	GHATAL SUDHIR DATTA	P	A	A	A	P	P	P	P
31	T.Y.B. Sc.	GURODA SWAPNIL NANHU	P	P	P	P	P	P	A	P
32	T.Y.B. Sc.	HARAD YADNYESH SANJAY	P	P	P	P	P	P	P	P
33	T.Y.B. Sc.	JADHAV MONALI SHARAD	P	P	P	A	P	P	P	P
34	T.Y.B. Sc.	KOM SACHIN VISHNU	P	A	P	P	P	A	P	P
35	T.Y.B. Sc.	MACHHI ARYAN ANIL	A	A	A	A	A	A	A	A
36	T.Y.B. Sc.	OZARE AMIT KALURAM	P	P	A	P	P	P	P	P
37	T.Y.B. Sc.	PAWADE SAHIL SANTOSH	P	P	P	P	P	P	P	P

38	T.Y.B. Sc.	SAMBARE AKASH BISTIR	P	P	P	P	P	P	P	P
39	T.Y.B. Sc.	SOLANKI REKHA DHULSINGH	A	P	P	P	P	P	P	P
40	T.Y.B. Sc.	WAVARE SAKSHI SANDIP	A	P	P	P	P	P	P	P

Sr. No.	Class	Name	05/01	06/01	07/01	12/01	13/01	14/01
1	M.Sc. I	VIKAS KAKAD	A	P	P	P	P	P
2	M.Sc. I	PRATHMESH BHAGUL	P	P	P	P	P	P
3	M.Sc. I	PINKI HARIJAN	P	P	P	P	P	P
4	M.Sc. I	KAIKALA GAVALI	A	P	P	P	P	P
5	M.Sc. I	GURGAMATI KADU	P	P	P	P	P	A
6	M.Sc. I	ADESH BARAF	A	P	P	P	P	P
7	M.Sc. I	BHAVIK CHURI	P	A	P	P	P	P
8	M.Sc. I	RAJLAXMI TIWARI	P	P	A	P	P	P
9	M.Sc. I	KARTIK KOKITKAR	P	P	P	P	P	A
10	M.Sc. I	NITIN DESAI	P	P	P	P	P	P
11	M.Sc. I	TANESH WAGH	P	P	P	P	P	P
12	M.Sc. I	PRAMOD TUMBADER	P	A	P	P	P	P
13	M.Sc. II	JHA ASHISH JAYGOVIND	P	P	P	P	P	P
14	M.Sc. II	TAKTODE ROHINI BHUJANG	P	P	P	P	P	P
15	M.Sc. II	BENDAGA SANDESH LAXMAN	A	P	P	P	P	P
16	M.Sc. II	GOVARI VINOD VASANT	A	A	A	P	P	P
17	M.Sc. II	MACHHI KAUSHAL BHAGWAN	A	A	A	A	A	A
18	M.Sc. II	PATIL PRIYA RAMAKANT	P	P	P	P	P	P
19	M.Sc. II	MORE ERSHA DASHARATH	P	P	P	P	P	P
20	M.Sc. II	GANGURDE MUKUND SURESH	A	P	P	P	P	P
21	M.Sc. II	DONGARE RUTIKA ANUP	A	P	P	P	P	P
22	M.Sc. II	KARNIK PRAJAKTA RAJESH	P	P	P	P	P	P
23	M.Sc. II	THAKUR ADESH RAMCHANDRA	A	P	P	P	P	P
24	M.Sc. II	LAHANGE ARCHANA ANKUSH	P	P	A	P	P	P
25	M.Sc. II	GOVIND MAYUR BABALU	P	A	P	P	P	P
26	M.Sc. II	LULANIYA FIRDOUS ILIYAS	A	A	A	A	A	A
27	M.Sc. II	KADU GRINABH NARESH	P	P	P	P	P	P
28	T.Y.B. Sc.	DONGARKAR SUNIL JAYRAM	P	P	P	P	P	P
29	T.Y.B. Sc.	GHARAT SHREYA NARENDRA	P	A	P	P	P	P
30	T.Y.B. Sc.	GHATAL SUDHIR DATTA	P	A	A	P	P	P

31	T.Y.B. Sc.	GURODA SWAPNIL NANHU	P	P	A	P	P	P
32	T.Y.B. Sc.	HARAD YADNYESH SANJAY	P	P	P	P	P	P
33	T.Y.B. Sc.	JADHAV MONALI SHARAD	A	P	P	P	P	P
34	T.Y.B. Sc.	KOM SACHIN VISHNU	P	P	P	P	P	P
35	T.Y.B. Sc.	MACHHI ARYAN ANIL	A	A	A	A	A	A
36	T.Y.B. Sc.	OZARE AMIT KALURAM	A	P	P	P	P	P
37	T.Y.B. Sc.	PAWADE SAHIL SANTOSH	P	P	A	P	P	P
38	T.Y.B. Sc.	SAMBARE AKASH BISTIR	A	P	P	P	P	P
39	T.Y.B. Sc.	SOLANKI REKHA DHULSINGH	P	P	A	P	P	P
40	T.Y.B. Sc.	WAVARE SAKSHI SANDIP	A	P	P	P	P	P



Prof. B. K. Sakhare
Head,
Department of Physics

No. of Days Present

Subject: Physics

Name of the Teacher: Prof. Sapna Jadhav/
Prof. Utkarsha Save

Class: B.Sc. and M.Sc.

Time – 1:50 p.m. To 3:50p.m.

Sr. No.	Class	Name Of The Student	No. of Days Present
1	M.Sc. I	VIKAS KAKAD	41
2	M.Sc. I	PRATHMESH BHAGUL	45
3	M.Sc. I	PINKI HARIJAN	42
4	M.Sc. I	KAIKALA GAVALI	42
5	M.Sc. I	GURGAMATI KADU	41
6	M.Sc. I	ADESH BARAF	38
7	M.Sc. I	BHAVIK CHURI	38
8	M.Sc. I	RAJLAXMI TIWARI	36
9	M.Sc. I	KARTIK KOKITKAR	43
10	M.Sc. I	NITIN DESAI	46
11	M.Sc. I	TANESH WAGH	42
12	M.Sc. I	PRAMOD TUMBADER	40
13	M.Sc. II	JHA ASHISH JAYGOVIND	46
14	M.Sc. II	TAKTODE ROHINI BHUJANG	46
15	M.Sc. II	BENDAGA SANDESH LAXMAN	40
16	M.Sc. II	GOVARI VINOD VASANT	39
17	M.Sc. II	MACHHI KAUSHAL BHAGWAN	00
18	M.Sc. II	PATIL PRIYA RAMAKANT	45
19	M.Sc. II	MORE ERSHA DASHARATH	44
20	M.Sc. II	GANGURDE MUKUND SURESH	40
21	M.Sc. II	DONGARE RUTIKA ANUP	43
22	M.Sc. II	KARNIK PRAJAKTA RAJESH	44
23	M.Sc. II	THAKUR ADESH RAMCHANDRA	42
24	M.Sc. II	LAHANGE ARCHANA ANKUSH	42
25	M.Sc. II	GOVIND MAYUR BABALU	43
26	M.Sc. II	LULANIYA FIRDOUS ILIYAS	00
27	M.Sc. II	KADU GRINABH NARESH	45
28	T.Y.B. Sc.	DONGARKAR SUNIL JAYRAM	43
29	T.Y.B. Sc.	GHARAT SHREYA NARENDRA	42
30	T.Y.B. Sc.	GHATAL SUDHIR DATTA	35
31	T.Y.B. Sc.	GURODA SWARNIL NANHU	40
32	T.Y.B. Sc.	HARAD YADNYESH SANJAY	43
33	T.Y.B. Sc.	JADHAV MONALI SHARAD	41
34	T.Y.B. Sc.	KOM SACHIN VISHNU	40
35	T.Y.B. Sc.	MACHHI ARYAN ANIL	00
36	T.Y.B. Sc.	OZARE AMIT KALURAM	41

37	T.Y.B. Sc.	PAWADE SAHIL SANTOSH	44
38	T.Y.B. Sc.	SAMBARE AKASH BISTIR	42
39	T.Y.B. Sc.	SOLANKI REKHA DHULSINGH	40
40	T.Y.B. Sc.	WAVARE SAKSHI SANDIP	41

**S. D. Arts, V. S. Apte Commerce and M. H. Mehta Science College,
Palghar-401404
Department of Physics**

Certificate Course
On

**Microcontroller Programming and its Digital Applications
Exam Question Paper Link**

Subject: Physics

Name of the Teacher: Prof. Sapna Jadhav/
Prof. Utkarsha Save

Class: B.Sc. and M.Sc.

Time – 1:50 p.m. To 3:50p.m.

Google Form link of Test Paper

Certificate Course Test- <https://forms.gle/fz1kpZViSi8R9KLRA>

Grade of Exam

Sr. No.	Class	Name Of The Student	Grade
1	M.Sc. I	VIKAS KAKAD	B
2	M.Sc. I	PRATHMESH BHAGUL	A
3	M.Sc. I	PINKI HARIJAN	B
4	M.Sc. I	KAIKALA GAVALI	A
5	M.Sc. I	GURGAMATI KADU	A
6	M.Sc. I	ADESH BARAF	O
7	M.Sc. I	BHAVIK CHURI	O
8	M.Sc. I	RAJLAXMI TIWARI	O
9	M.Sc. I	KARTIK KOKITKAR	A+
10	M.Sc. I	NITIN DESAI	O
11	M.Sc. I	TANESH WAGH	B
12	M.Sc. I	PRAMOD TUMBADER	B
13	M.Sc. II	JHA ASHISH JAYGOVIND	O
14	M.Sc. II	TAKTODE ROHINI BHUJANG	O
15	M.Sc. II	BENDAGA SANDESH LAXMAN	O
16	M.Sc. II	GOVARI VINOD VASANT	A+
17	M.Sc. II	MACHHI KAUSHAL BHAGWAN	AB
18	M.Sc. II	PATIL PRIYA RAMAKANT	O
19	M.Sc. II	MORE ERSHA DASHARATH	O
20	M.Sc. II	GANGURDE MUKUND SURESH	B
21	M.Sc. II	DONGARE RUTIKA ANUP	A
22	M.Sc. II	KARNIK PRAJAKTA RAJESH	A
23	M.Sc. II	THAKUR ADESH RAMCHANDRA	O
24	M.Sc. II	LAHANGE ARCHANA ANKUSH	A
25	M.Sc. II	GOVIND MAYUR BABALU	A+
26	M.Sc. II	LULANIYA FIRDOUS ILIYAS	AB
27	M.Sc. II	KADU GRINABH NARESH	O
28	T.Y.B. Sc.	DONGARKAR SUNIL JAYRAM	A
29	T.Y.B. Sc.	GHARAT SHREYA NARENDRA	O
30	T.Y.B. Sc.	GHATAL SUDHIR DATTA	A
31	T.Y.B. Sc.	GURODA SWAPNIL NANHU	A+
32	T.Y.B. Sc.	HARAD YADNYESH SANJAY	A
33	T.Y.B. Sc.	JADHAV MONALI SHARAD	O
34	T.Y.B. Sc.	KOM SACHIN VISHNU	B
35	T.Y.B. Sc.	MACHHI ARYAN ANIL	AB
36	T.Y.B. Sc.	OZARE AMIT KALURAM	O
37	T.Y.B. Sc.	PAWADE SAHIL SANTOSH	A+

38	T.Y.B. Sc.	SAMBARE AKASH BISTIR	A+
39	T.Y.B. Sc.	SOLANKI REKHA DHULSINGH	O
40	T.Y.B. Sc.	WAVARE SAKSHI SANDIP	O

Certificate





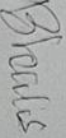
Sonopant Dandekar Shikshan Mandal's
Sonopant Dandekar Arts, V. S. Apte Commerce &
M. H. Mehta Science College, Palghar

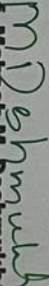


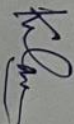
Department of Physics

CERTIFICATE

This is to certify that Mr./Miss. Prasad Vikas
has successfully completed the Certificate Course "Microcontroller
Programming and its Digital Applications" with _____ grade
conducted by Department of Physics from 20/09/2022 to 15/01/2023.


Prof. Bhimrao K. Saktare
Head, Dept. of Physics


Prof. Mahesh M. Deshmukh
IQAC Coordinator


Dr. Kiran J. Save
Principal

Report

Course Summary

Certificate Course on “Microcontroller Programming and its Digital Applications” was started during the academic year 2022-23 under the flagship of Physics department. The course offers concept of Microprocessor in order to educate them with the necessary basic concepts in the field of Microprocessor & Microcontroller to be used in industries, research field and in commercial field applications.

Duration of course is of 46 days, starting from 20/09/2022 to 15/01/2023.

Total number of students who registered in the course were 40.

After successful completion of the course, 37 students were issued the certificate.



Prof. B. K. Sakhare
Head,
Department of Physics