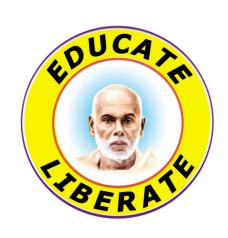
# SREE NARAYANA COLLEGE CHENGANNUR





(Affiliated to University of Kerala)
NAAC accredited with Grade B
Neduvaramcode (PO), Cheriyanad
Chengannur-689508

## CERTIFICATE COURSE

# FUNDAMENTALS OF MICROPROCESSOR

DATE: 15 DEC 2018-31 JAN 2019

TIME: 3.00 TO 4.00 PM

Co-ordinator: Dr.K Sreelatha

**Members:** Ms.Amrutha Sasidharan

MS.Arya Surendhran

Ms.Sasikala V

Ms.Renju Ravi

Ms.Arya Raveendran

Ms.Nidhi S Vijay





Dr. Rejikumar P R Head of the Department SN College Chengannur

Chengannur 20/10/2018

The Principal SN College Chengannur

Subject :- Conduct a certificate course for 2018-2019- request permission reg:

Madam,

The Department of Physics plans to conduct a certificate course on "Fundamentals of Microprocessor" for the UG and PG students of the department. The duration of the course is 30 hours. We plan to conduct the course from 15/12/2018 to 31/01/2019. Kindly grant permission to organize the same.

Thanking you,

Yours faithfully,

Dr. Rejikumar P R

Resorted

### **CERTIFICATE COURSE 2018-2019**

The Department of Physics conducts a Certificate course on "FUNDAMENTALS OF MICROPROCESSOR". The Duration of the Course is 30 hours. This course will provide the students a basic idea of microprocessors and how it works.

#### CERTIFICATE COURSE IN FUNDAMENTALS OF MICROPROCESSOR

#### PY18FM

#### **SYLLABUS**

#### Module 1 (5 hours)

Introduction: Introduction to Microprocessors, microcomputer and single chip microcomputer, Components of Microprocessor: Registers, ALU and control & timing, CPU, I/O devices, clock, memory, bussed architecture, tri-state logic, address bus, data bus and control bus.

#### Module 2 (15 hours)

Architecture of 8085 Microprocessor: Microprocessor Architecture, Pin Functions, Demultiplexing of Buses Memory and I/O operation, Generation of Control Signals, Instruction Cycle, Machine Cycles, T-States-Instruction Set-Assembly Language Programming Basics, Classification of Instructions, 8085 Instruction Set, Instruction and data Formats, Addressing Modes-Assembly Language Programming

### Module 3 PRACTICAL (10 hours)

- 1. Hexadecimal additions of two numbers.
- 2. Add two sixteen bit numbers.
- 3. Separating of hexadecimal number into two digits
- 4. Multiplication by two, employing bit rotation
- 5. Display flashing "ABCDEF"
- 6. Add two sixteen bit numbers and store the 16bit result.
- 7. To generate Square Wave at PORT-A, PORT-B, PORT-C of 8255
- 8. Develop an assembly language program for subtraction of two numbers.

### **Books for Reference**

- 1. Microprocessor Architecture, Programming and Applications with 8085: Gaonkar, Ramesh S. Penram International Publishing (India) Pvt. Ltd. New Delhi (5th Edition)
- 2. Fundamentals of Microprocessors and Microcontrollers: Ram, B. Dhanpat Rai Publications, New Delhi
- 3. Microprocessors and Interfacing Programming and Hardware: Hall, Douglass V. TMH publication, New Delhi, (latest Edition)
- 4. The 8051 Microcontroller Architecture, Programming and Applications: Ayala, Kenneth J. Penram International Publishing (I) Pvt. Ltd. New Delhi

THE CHENGANAUR

### SREE NARAYANA COLLEGE, CHENGANNUR DEPARTMENT OF PHYSICS

### **Minutes of the Meeting**

The minutes of the meeting of the Board of Studies of Certificate courses was held on 5<sup>th</sup> December, 2018 in the Department of Physics, Sree Narayana College, Chengannur at 10.00 a.m. The following members were present for the meeting.

- 1. Dr. R.K. Rejikumar
- 2. Dr. K. Sreelatha
- 3. Ms. Amrutha Sasidharan
- 4. MS.Arya Surendhran
- 5. Ms.Sasikala V
- 6. Ms.Renju Ravi
- 7. Ms. Arya Raveendran
- 8. Ms.Nidhi S Vijay

The following points were discussed in the meeting.

• The BoS has decided to initiate the following certificate course in the academic year 2018-19.

### FUNDAMENTALS OF MICROPROCESSOR

- The syllabus for the above courses was designed by the committee considering the global needs and demand of the market.
- It was decided to conduct the above course having 30 hours duration.
- The committee has framed the time- table apart from the academic hours.

- Classes will start on 15/12/2018 and end on 31/01/2019.
- The minimum attendance for the successful completion of the course is decided to be 75%.
- The submission of the assignment is compulsory for the successful completion of the course.
- The board has decided to initiate the certificate courses as per the approval of IQAC

Dr. K. Sreelatha proposed the vote of thanks and the meeting ended.



## CERTIFICATE COURSE IN <u>FUNDAMENTALS OF MICROPROCESSOR</u>

### **Details of Students Enrolled for Certificate Course: 2018-2019**

Sl. No.	Candidate Code	Name of Student	Class	Signature		
1	23016128003	Anjana Suresh	III B.Sc. Physics	Ario Sarr		
2	23016128004	Anuprakash Achari	III B.Sc. Physics	Amb.		
3	23016128005	Arsha S	III B.Sc. Physics	An .		
4	23016128006	Gokul R	III B.Sc. Physics	Gofult.		
5	23016128007	Harkishal S	III B.Sc. Physics	Lawriana		
6	23016128008	Mekha K Babu	III B.Sc. Physics	Jeles		
7	23016128009	Monu P Mohan	III B.Sc. Physics	Mom.		
8	23016128010	Reshma K Remesh	III B.Sc. Physics	Rollin		
9	23016128014	Bismi R	III B.Sc. Physics	Don't.		
10	23016128015	Jithin Baiju	III B.Sc. Physics	oths		
11	23016128016	Lekshmi P	III B.Sc. Physics	Leton.		
12	23016128017	Nikhil S	III B.Sc. Physics	Nitthel		
13	23016128018	Nithin K Ani	III B.Sc. Physics	Liller		
14	23016128019	R Rithesh	III B.Sc. Physics	Rollish.		
15	63018128001	Akshay A	I M.Sc. Physics	Alashang		
16	63018128002	Amar Raj	I M.Sc. Physics	Apar		

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18	63018128004	Anju Krishna	I M.Sc. Physics	Alsoh		
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20	63018128006	Athira P Nair	I M.Sc. Physics	Affrica.		
21	63018128007	Athira T Pillai	I M.Sc. Physics	Altose		
22	63018128008	Chinchu R Babu	I M.Sc. Physics	anch.		
23	63018128009 Divya R		I M.Sc. Physics	Days.		
24	63018128010	Jesny Thankachan	I M.Sc. Physics	Jeny.		
25	63018128011 Kavya Sasidharan K K		I M.Sc. Physics	Kavya S		
26	63018128012	Lekshmi Prasad	I M.Sc. Physics	Lelashiri		
27	63018128013	Nithina S	I M.Sc. Physics	Willer.		
28	63018128014	Parvathy S	I M.Sc. Physics	( Porvarion .		
29	63018128015	Rakhi Reghu	I M.Sc. Physics	Radi		
30	63018128016	Remya Krishnan A	I M.Sc. Physics	Remya		
31	63018128017	Sreya P K	I M.Sc. Physics	Staya.		
32	63018128018	Vineeth Shaji	I M.Sc. Physics	Vineally.		
33	63017128001	Adithya S R	II M.Sc. Physics	Afrithys		
34	63017128002	Goutham Krishna A	II M.Sc. Physics	Goulland.		
35	63017128003 Hima P S		II M.Sc. Physics	Line		
36	63017128004	Kavya Surendran	II M.Sc. Physics	Xary		
37	63017128005	Keerthy V R	II M.Sc. Physics	1 miles		

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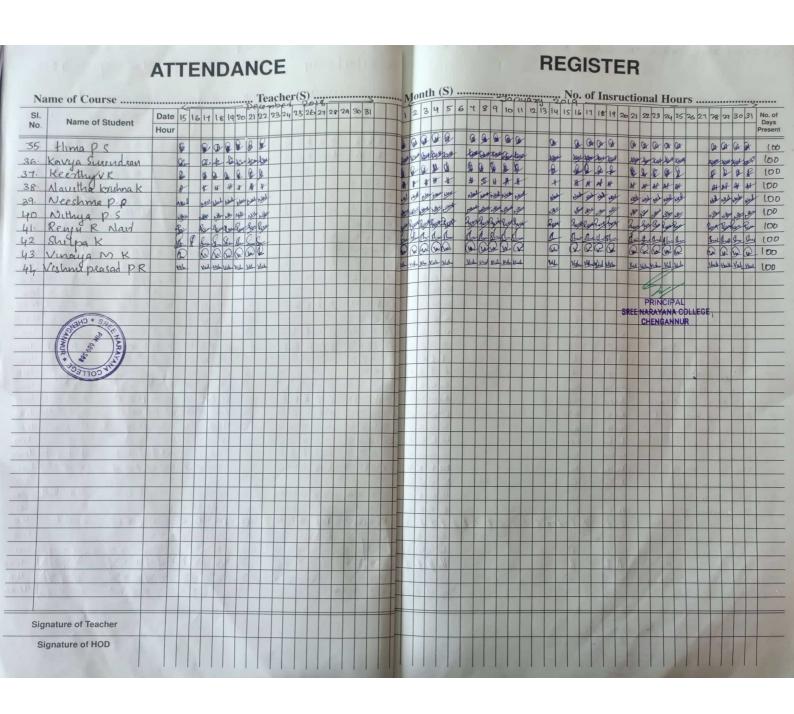
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SREE NARAYANA COLLEGE, CHENGANNUR

**DEPARTMENT OF PHYSICS** 

REPORT ON CERTIFICATE COURSE IN FUNDAMENTALS OF MICROPROCESSOR

**ACADEMIC YEAR 2018-2019** 

Date: 15/12/2018 to 31/01/2019

Time: 3.00 pm to 4.00 pm

**Venue: Physics Lab** 

As per the decision of the Department of Physics, Sree Narayana College, Chengannur, IQAC and the PG department of Physics jointly conducted the certificate course having 30 hours duration. The program was inaugurated by Dr. Shiny Sreedhar, Principal, and chaired by Dr. R.K. Rejikumar, Head, Department of Physics, Sree Narayana College, Chengannur. Dr. K. Sreelatha, Course co-ordinator delivered the welcome address.

The sessions of course were handled by faculty members of the department namely Dr. R K. Rejikumar, Dr. K Sreelatha , Ms Sasikala V, Ms Amrutha Sasidharan.

**Fundamentals of Microprocessor** course starts with a discussion on a simple microprocessor, 8085. Certificate course benefits the students with something extra beyond their regular academics and serves as an added advantage. The main objective of the course was handling the fundamentals of microprocessor and its practical section in Physics UG & PG laboratories and to develop skills on how the microprocessor works, their uses and programming. Second year UG, third year UG, first year and second year PG students in our department successfully completed the course. The minimum attendance for the successful completion of the course is decided to be 75%. On the completion of course, certificates were distributed to the students by Dr. Shiny Sreedharan Principal and Dr. R K. Rejikumar Head of the Department of Physics, Sree Narayana College, Chengannur.

Duration: 10 hrs Practical and 20 hrs theory

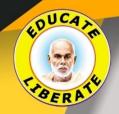
The students have completed 30 sessions including theory and practical during the period 15/12/2018 to 31/01/2019.

### **Total Students Successfully Completed: 44**



### PHOTOS PRACTICAL SECTION





# SREE NARAYANA COLLEGE CHENGANNUR PG DEPARTMENT OF PHYSICS & IQAC

### CERTIFICATE OF PARTICIPATION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

### ANUPRAKASH ACHARI

THIS IS TO CERTIFY THAT ANUPRAKASH ACHARI OF III B.SC. PHYSICS HAS SUCCESSFULLY COMPLETED THE CERTIFICATE COURSE ON 'FUNDAMENTALS OF MICROPROCCESSOR' CONDUCTED BY PG DEPARTMENT OF PHYSICS, SREE NARAYANA COLLEGE, CHENGANNUR DURING THE ACADEMIC YEAR 2018-19. THE MEMBER ACHIEVED THE GENERAL SKILLS IN USING MICROPROCESSOR AND DEVELOPING PROGRAMS.

WENGANHUR CATENGANHUR

**Dr.P R Rejikumar**Signature of HOD
Department of Physics



Dr.Shiny Sreedhar
Signature of
PrincipaNCIPAL
SREE NARAYANA COLLEGE
CHENGANNUR