

DEPARTMENT OF PHYSICS
SRI A.S.N.M. GOVERNMENT COLLEGE (AUTONOMOUS)
PALAKOL, W.G.DT.534260

VALUE ADDED COURSE-2018-19



ADD ON COURSE
IN
Electricity, Magnetism and Basic Electronics

COURSE COORDINATOR
N J K Narendra Kumar
Lecturer incharge
DEPARTMENT OF PHYSICS

CONTENTS

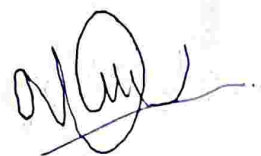
	Page No.
1. Minutes of the meeting	03
2. Report on Add on course	04
3. Expected program specific outcomes:	04
4. Other details	
• Course Syllabus	4, 5,6
• List of students enrolled for the certificate course	7
• Student Attendance particulars	8 & 9
• Conclusion	10

MINUTES OF THE MEETING

The Department of Physics held a meeting on 24-11-2018 and resolved to organize Add on Course in Electricity, Magnetism and Basic Electronics for V semester students under the guidance of Sri N J K Narendra Kumar . The other staff members of the Department Sri B Adi Narayana Murthy and Dr. K Ram Narayana were present in the meeting. The course was planned to be held for 30 working hours. The Add on course was organized from 28-11-2018 to 10-1-2019 for the academic year 2018-19.

Signature of the staff members:

Sri N J K Narendra Kumar Incharge of the Department



Sri B Adi Narayana Murthy Lecturer in Physics



Dr. K Ram Narayana Lecturer in Physics



Signature of the Principal

Circular

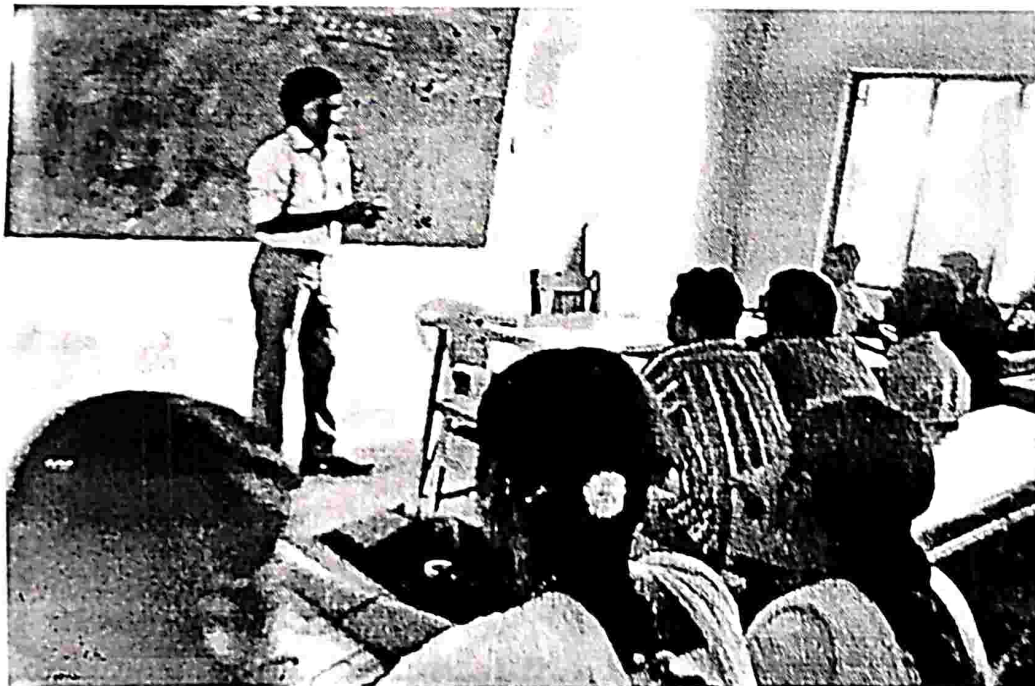
25-11-18

This is to inform all the III B.Sc MPC and MPCs students, that the Department of physics is organising a value added course in "Electricity, Magnetism and Basic electronics" with a duration of 3hrs from 5pm to 6pm. under the guidance of sri N. J. K. Narendra Kumar from 28-11-18 to 10-01-2019 to enrich the knowledge of students in physics. Interested students can give their names to Dr. K. Ram Narayana Lecturer in physics.



signature of the
Department Hc

III B.Sc MPC } monthly
MPCs }



Report on Add on Course

Introduction

Department of Physics conducted an Add on course in **Electricity, Magnetism and Basic Electronics** the year 2018-219 under curriculum enrichment programme. It is important for physics students to Understand the basics in Electricity, Magnetism and Basic Electronics which are not covered in the curriculum. This can help the students handle simple electrical and Electronic circuits in the laboratory.

Objectives

- Basic about magnet and electromagnet
- Parameter of Magnetic Circuit
- Comparison of Magnetic & Electric Circuit
- Magnetization Curve (Core Saturation)
- Hysteresis Loop
- Induced emf
- Faraday's Law's of electromagnetic induction and its importance
- Lenz's law and its importance
- Statically Induced emf, Mutually Induced emf & Dynamically Induced emf
- Inductor, Self Inductance, Mutual Inductance & Energy stored in Inductor
- Series - Parallel Inductor
- Rise & Decay in Inductor Current
- Hysteresis & Eddy Current Losses
- Magnetic Force & Electric Motor
- Generation of AC

Expected outcomes of program

- Understand the basic working principles of important electrical and electronic circuit components.
- Troubleshooting the laboratory equipments.
- Develop the skill of simple electronic circuit fabrication and instrumentation.

Course Title: Electricity, Magnetism and Basic Electronics

Course Objectives:

- Understand the basic working principles of important electrical and electronic circuit components.
- Troubleshooting the laboratory equipments.
- Develop the skill of simple electronic circuit fabrication and instrumentation.

Syllabus

Module 1: Gauss Law in dielectrics, Mechanical force on the surface of charged conductor
Potential due to a Point charge

Module 2: Equivalence between a magnetic shell and a current circuit, Para, dia, and ferro-magnetic substances, Cyclotron

Module 3: Single Phase A.C. motor, Construction D.C. motor

Module 4: N-type & P-type semiconductors, Valence band, conduction band and forbidden Energy gap Zener diode as Voltage regulator

Module 5: Hexadecimal number system, conversion of Hexadecimal into Binary number

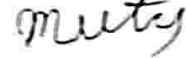
Total Hours:30

No. of Seats: 35

Quality Assurance Mechanism: The quality of the course will be ensured through continuous evaluation of feedback from students and course coordinator by IQAC of the college.

This proposal is placed before BOS committee for syllabus approval.

Committee Members







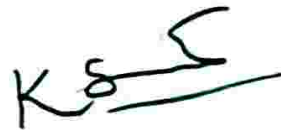
N J K Narendra kumar

Head of the Department.



BOS Chairman

N J K Narendra Kumar



P Sri Ram Murthy
Principal

List of students enrolled for the certificate course II B. Sc MPC & MPCs 5PM TO 6PM

S.NO	Regd.No.	Name of the student	Signature of the student
1	1621001	A V V RAGHAVA KUMAR	A.v.v Raghava Kumar
2	1621002	B GEETHA SRI	B. Geetha Sri
3	1621003	B SAI RAM	B. Sai Ram
4	1621004	B DHARMA TEJA	B. Dharma Teja
5	1621005	B RATNA SRI	B. Ratna Sri
6	1621006	CH ANIL KUMAR	Ch. Anil Kumar
7	1621007	CH DURGA RAO	Ch. Durga Rao
8	1621008	CH HEMA MUTYAVANI	Ch. Hema Mutyavani
9	1621009	D RAJA	D. Raja
10	1621012	G SAI DURGA PRASAD	G. Sai Durga Prasad
11	1621015	J G D CHANDU	J. G. D Chandu
12	1621016	K MARTIN	K. Martin
13	1621019	K DURGA SRINIVAS	K. Durga Srinivas
14	1621020	M RAMESH	M. Ramesh
15	1621021	M KIRAN BABU	M. Kiran babu
16	1621022	M POLAYYA	M. Polayya
17	1621023	N BENARJEE	N. Benarjee
18	1621024	N VEERASWARADU	N. Veeraswaradu
19	1621025	P V SAI NAGU	P.v. Sai Nagu
20	1522036	G BALA GANGADHAR	G. B. ganga dhar
21	1622038	B MOHAN SAI	B. mohan sai
22	1622040	CH D V PHANI KUMAR	Ch. p.v Phani Kumar.

23	1622041	CH CHARAN	CH. Charan
24	1622044	CH ROHINI DURGA	Ch. Rohinidurga
25	1622043	CH DORA BABU	ch. Dora babu
26	1622045	D TEJA	D. Teja
27	1622046	N DURGA RAJYALAKSHMI	N. Raja lakshmi
28	1622049	K SANDEEP KUMAR	K. Sandeep kumar
29	1622052	K SANDEEP	K. Sandeep
30	1622053	M HEMA LATHA	M. hema latha
31	1622054	M LAKSHMI BINDHU	M. L. Bindhu
32	1622055	M GEETHIKA	M. Geethika
33	1622056	M SATYA VARDHAN	M. Satya Vardhan
34	1622057	N SAI KUMAR	N. S. Kumar
35	1622060	P HEMA CHANDU	P. hema chandu
36	1622062	P MADHU BALA	p. madhu bala
37	1622063	P RAJESH	P. Rajesh
38	1622064	R VIJAYA BABU	R. Vijaya babu
39	1622065	T CHITTI BABU	T. Chitti babu

Student Attendance:

Sl.No	Name of the Student	Class	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	A V V RAGHAVA KUMAR	II B.Sc.,	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
2	B GEETHA SRI	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
3	B SAI RAM	II B.Sc.	p	a	a	p	p	p	p	p	p	p	p	p	p	p	p
4	B DHARMA TEJA	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
5	B RATNA SRI	II B.Sc.	p	p	p	p	p	p	p	p	p	p	a	a	p	p	p
6	CH ANIL KUMAR	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
7	CH DURGA RAO	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
8	CH HEMA MUTYAVANI	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
9	D RAJA	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
10	G SAI DURGA PRASAD	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
11	J G D CHANDU	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
12	K MARTIN	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
13	K DURGA SRINIVAS	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
14	M RAMESH	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
15	M KIRAN BABU	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
16	M POLAYYA	II B.Sc.	p	p	p	p	p	p	p	p	p	p	a	p	p	p	p
17	N BENARJEE	II B.Sc.	p	p	p	a	p	p	p	p	p	p	p	p	p	p	p
18	N VEERASWARADU	II B.Sc.	p	p	p	p	p	p	p	p	p	p	a	p	p	p	p
19	P V SAI NAGU	II B.Sc.	p	p	p	p	p	p	p	p	p	p	P	p	p	p	p

20	G BALA GANGADHAR	II B.Sc.,	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
21	A SAI DURGA PRASAD	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
22	B MOHAN SAI	II B.Sc.	p	a	p	p	p	p	p	p	p	p	p	p	p	p	p
23	CH D V PHANI KUMAR	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p
24	CH CHARAN	II B.Sc.	p	p	p	p	p	p	p	p	p	a	a	p	p	p	p
25	CH ROHINI DURGA	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p
26	CH DORA BABU	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
27	D TEJA	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p
28	N DURGA RAJYALAKSHMI	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	a	p
29	K SANDEEP KUMAR	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
30	K SANDEEP	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p
31	M HEMA LATHA	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p
32	M LAKSHMI BINDHU	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p
33	M GEETHIKA	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p
34	M SATYA VARDHAN	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
35	N SAI KUMAR	II B.Sc.	p	p	p	p	p	p	p	p	p	a	p	p	p	p	p
36	P HEMA CHANDU	II B.Sc.	p	p	p	p	p	p	p	p	p	p	a	p	p	p	p
37	P MADHU BALA	II B.Sc.	p	p	p	p	a	p	p	p	p	p	p	p	p	p	p
38	P RAJESH	II B.Sc.	p	p	p	p	p	p	p	p	p	a	p	p	p	p	p
39	R VIJAYA BABU	II B.Sc.	p	p	p	p	p	p	p	p	p	a	p	p	p	p	p

Attendance for remaining 15 periods

Sl.No	Name of the Student	Class	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	A V V RAGHAVA KUMAR	II B.Sc.,	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
2	B GEETHA SRI	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
3	B SAI RAM	II B.Sc.	p	a	a	p	p	p	p	p	p	p	p	p	p	p	p
4	B DHARMA TEJA	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
5	B RATNA SRI	II B.Sc.	p	p	p	p	p	p	p	p	p	p	a	a	p	p	p
6	CH ANIL KUMAR	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
7	CH DURGA RAO	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
8	CH HEMA MUTYAVANI	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
9	D RAJA	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
10	G SAI DURGA PRASAD	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
11	J G D CHANDU	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
12	K MARTIN	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
13	K DURGA SRINIVAS	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
14	M RAMESH	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
15	M KIRAN BABU	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p
16	M POLAYYA	II B.Sc.	p	p	p	p	p	p	p	p	p	p	a	p	p	p	p
17	N BENARJEE	II B.Sc.	p	p	p	a	p	p	p	p	p	p	p	p	p	p	p
18	N VEERASWARADU	II B.Sc.	p	p	p	p	p	p	p	p	p	p	a	p	p	p	p

19	P V SAI NAGU	II B.Sc.	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
20	G BALA GANGADHAR	II B.Sc.,	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p	p
21	A SAI DURGA PRASAD	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p	p
22	B MOHAN SAI	II B.Sc.	p	a	p	p	p	p	p	p	p	p	p	p	p	p	p	p
23	CH D V PHANI KUMAR	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p	p
24	CH CHARAN	II B.Sc.	p	p	p	p	p	p	p	p	p	a	a	p	p	p	p	p
25	CH ROHINI DURGA	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p	p
26	CH DORA BABU	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p	p
27	D TEJA	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p	p
28	N DURGA RAJYALAKSHMI	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	a	p	p
29	K SANDEEP KUMAR	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p	p
30	K SANDEEP	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p	p
31	M HEMA LATHA	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p	p
32	M LAKSHMI BINDHU	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p	p
33	M GEETHIKA	II B.Sc.	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p	p
34	M SATYA VARDHAN	II B.Sc.	p	p	a	p	p	p	p	p	a	p	p	p	p	p	p	p
35	N SAI KUMAR	II B.Sc.	p	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p
36	P HEMA CHANDU	II B.Sc.	p	p	p	p	p	p	p	p	p	p	a	p	p	p	p	p
37	P MADHU BALA	II B.Sc.	p	p	p	p	a	p	p	p	p	p	p	p	p	p	p	p
38	P RAJESH	II B.Sc.	p	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p
39	R VIJAYA BABU	II B.Sc.	p	p	p	p	p	p	p	p	p	a	p	p	p	p	p	p

Conclusion

This Add on Course was mainly carried out in our college to inculcate Research attitude at Undergraduate students. After the Completion of Add on Course student were able to acquire knowledge in Electricity, Magnetism and Electronics and they reached the expected outcomes

SRI A.S.N.M. GOVT. COLLEGE (A)

(NAAC Reaccredited B grade with 2.61 CGPA)

PALAKOL, WEST GODAVARI DISTRICT, A.P

DEPARTMENT OF PHYSICS

CERTIFICATE

This is to certify that Mr/Ms B. Geetha Sri of II B.Sc Class successfully completed Value Added Course in **Electricity Magnetism & Basic Electronics** during the year 2018-19.



In-charge of the Department



Course-coordinator



Principal