

P G DEPARTMENT OF PHYSICS (SF)
DEVA MATHA COLLEGE, KURAVILANGAD

Affiliated to Mahatma Gandhi University, Kottayam



REPORT
ON
ADD-ON COURSE
Trouble shooting and maintenance of electronic equipment
Conducted for I PG students
Academic Year: 2021-22

ADD-ON COURSE REPORT

Academic Year: 2021-22

Dates: 13 January 2022- 28 January 2022

Beneficiaries: I PG Physics

Number of teachers coordinated:1

Number of Students participated:16

Total Instructional hours: 30

Course name: Trouble shooting and maintenance of electronic equipment

Course code: DMCK/ SFPHY /AD 34/2021

An add-on course was conducted by the PG Department of Physics Deva Matha College Kuravilangad from 13-28 January 2022 on the topic "Troubleshooting and maintenance of electronic equipment". The resource person Sri. Anish Kumar (Asst. Professor Dept. Of Electronics, K.E College Mannanam) gave practical and theory sessions. Theory classes are given through Google classroom and practical class is given in our department lab. 16 students from our I PG completed this course. An examination is done after the course and the certificates are distributed.

Course Syllabus

Course Objectives

1. Acquire working knowledge in electronic circuits
2. To develop the method for the study of different circuits
3. To familiarize the basic electronic equipments

Module 1 Trouble shooting and maintenance of power supplies (15hours)

Introduction to linear power supplies, Linear Power supplies-troubleshooting of power supply circuit, Analysis, planning, measurement, effect of an open diode in a half wave rectifier, Effect of an open diode in a full wave rectifier, Effects of a faulty filter capacitor, effect of a faulty transformer.

Module 2 Trouble shooting and maintenance of SMPS (15hours)

SMPS – Working, advantages and disadvantages, comparison of linear regulator vs SMPS, Linear power supplies, working, applications, advantages and disadvantages, how to build a linear power supply- designing (3 types)

Course Outcomes

- Students will demonstrate various electronic circuits
- Solve the errors in various equipments
- Student will demonstrate an ability to identify the components and circuit elements in various electronic devices
- Students will be able to apply the practical knowledge for constructing a circuit

Grading

Above 80%	A
60%-80%	B
Below 60%	C

Examination grade sheet

Name of the student	Grade
Aleena Varkey	A
Aneeta Shaji	A
Anjana Madhu	A
Arathy S Nair	A
Asish K Shajan	A
Aswini Rajan	A
Devi Sasidharan	A
Diya Sebastian	A
Jyothinadh V U	A
Midhun Nair M	A
Neha Tom	A

Sandra Jacob	A
Sanisha K G	A
Sreelakshmi C K	A
Susan Moncy	A
Vrindha S Raj	A

Add- on course

SNO	Submit Date	Name	Email	Total Marks (5)	Result	1. What is the advantage of using SMPS	2. SMPS stands for	3. Which is the first step of troubleshooting?	4. The main component that allows a linear regulator to function is	5. Another name of zener diode is	Answer Sheet Link
1	28-01-2022	Azwin Rajan	azwinrajan99@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d61f6e3063d89c0d69a
2	28-01-2022	Naha Tom	nahatom2000@gmail.com	4	80.0%	High efficiency	Switched mode power supply	Analysis	Capacitor	Breakdown	https://quizzy.in/answer-sheet/61f9d6777630c7661311d187
3	28-01-2022	Midhun Nair M	midhun813803@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d6ca93eadd3ceab91146
4	28-01-2022	Devi Sasiharan	devisindhussasidharan@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d6ef42b2d73d235227a
5	28-01-2022	Aleena Varkey	aleenavarkey44@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d61e8fc93d09b4622
6	28-01-2022	Arjana Mathu	arjanamathu107@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d6f889eadd3ceab91155
7	28-01-2022	Sandra Jacob	sandrababychurath@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d70d866783d0fab8c3
8	28-01-2022	Aneeta Sheji	aneetashaj2000@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d739abb753ce1b06bbd
9	28-01-2022	Azish K Shajan	azishkshajan007@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d762b6e3c79ed3fd
10	28-01-2022	SREELAKSHMI CK	sreesnair07@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d76d6fca3c79ed3fd
11	28-01-2022	SANISHA K G	sanishachar@gmail.com	4	80.0%	High efficiency	Switched mode power supply	measurement	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d80e8fc93d09b46a5
12	28-01-2022	Diya sebastian	diyasebastian@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d844abb753ce1b06b8a
13	28-01-2022	Anathy S Nair	anathysnair2016@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d8608972a1c969ced1d

14	28-01-2022	Vrindha S Raj	vrindhasraj7546@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d910c9e3c79ed3fd
15	28-01-2022	JYOTHINADHIVU	jyothinadh10123@gmail.com	5	100%	High efficiency	Switched mode power supply	Analysis	Transformer	Breakdown	https://quizzy.in/answer-sheet/61f9d91abb753ce1b06bde
16	28-01-2022	Susan Moncy	susanmoncy98@gmail.com	4	80.0%	High efficiency	Switched mode power supply	Analysis	Transistor	Breakdown	https://quizzy.in/answer-sheet/61f9d9354e43a65cafb5d6c5

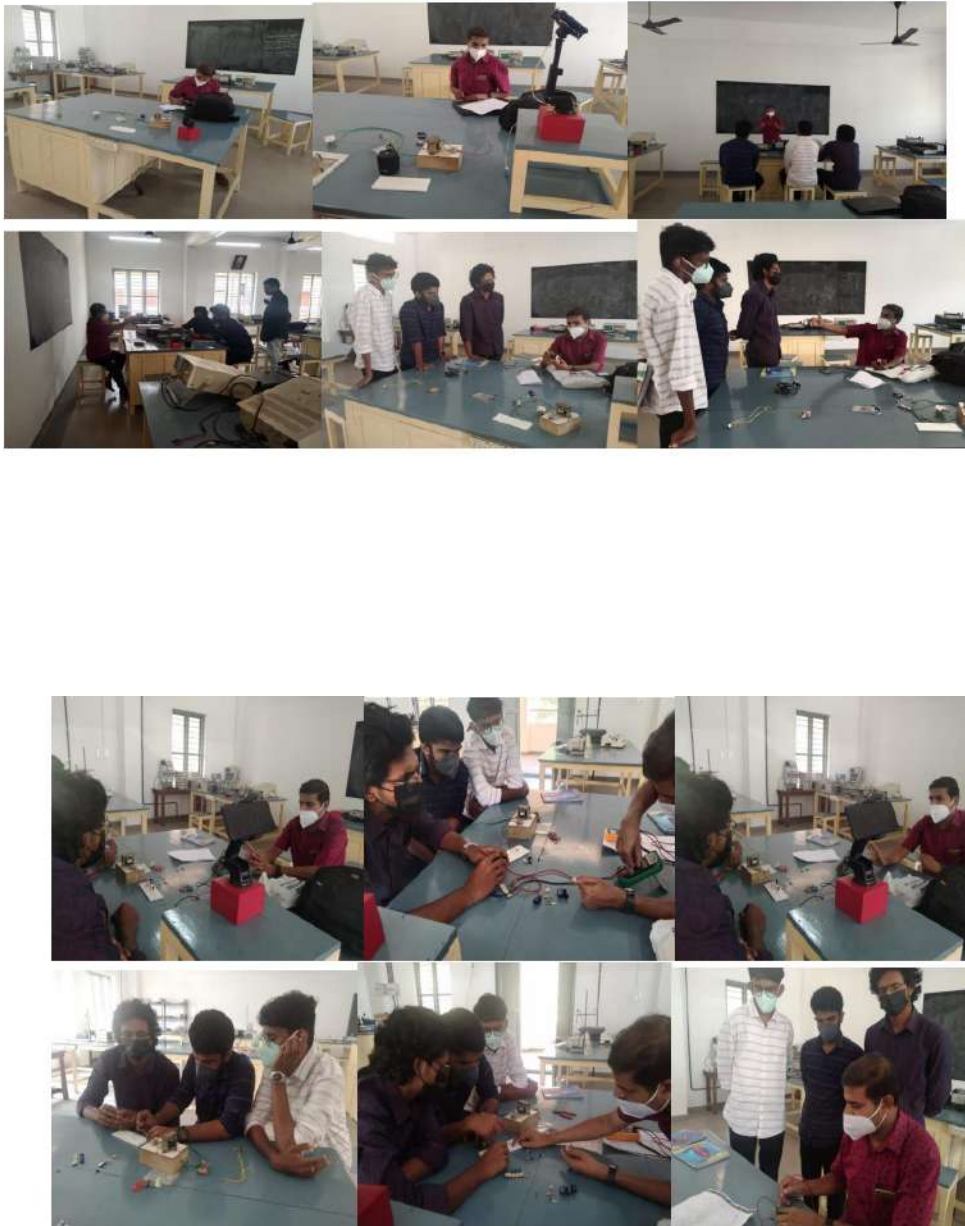
Feedback and Students List

Add-on course feedback form

S.NO	Submit Date	Name	E-Mail	Mobile Number	Class	The course objectives were stated clearly and met.	The resource person was a good communicator.	Therory and practical sessions were well organized.	Overall experience was well satisfactory
1	02-03-2022	Midhun Nair M	midhun813803@gmail.com	8138035286	Msc physics	3	3	3	3
2	02-03-2022	Susan Moncy	susanmoncy98@gmail.com	9188108563	1st msc physics	4	4	4	4
3	02-03-2022	Vrindha S Raj	vrindhasraj7546@gmail.com	9544032193	MSc physics 1st yr	4	4	3	4
4	02-03-2022	Jyothinadh V U	jyothinadh10123@gmail.com	9207942390	First Year MSc Physics	3	3	2	3
5	02-03-2022	Sandra Jacob	sandrababychurathil@gmail.com	9188200532	1st MSc Physics	4	4	4	4
6	02-03-2022	Aswini Rajan	aswinirajan99@gmail.com	7736771204	1st PG Physics	4	4	4	4
7	02-03-2022	Diya sebastiam	diyasebastianp@gmail.com	9497552695	First year msc physics	4	4	4	4
8	02-03-2022	arathysnair2016@gmail.com	arathysnair2016@gmail.com	9497497589	M.Sc Physics First year	4	4	3	3
9	02-03-2022	Neha Tom	nehatom2000@gmail.com	8078810588	1st Msc Physics	4	4	4	4
10	02-03-2022	Aneeta Shaji	aneetashaji2000@gmail.com	6282732883	First PG Msc physics	3	3	3	3
11	02-03-2022	ANIANA MADHU	anjanamadhu107@gmail.com	8606308268	1st Msc Physics	4	4	2	3
12	02-03-2022	SANISHA K G	sanishashaz@gmail.com	9946566112	First msc physics	3	3	3	3
13	02-03-2022	Aleena Varkey	aleenavarkey44@gmail.com	9061438534	1st yr MSc Physics	3	3	3	3
14	02-03-2022	Asish K Shajan	asishkshajan007@gmail.com	7025506979	1 PG Physics	4	4	4	3
15	04-03-2022	SREELAKSHMI CK	sreevnair07@gmail.com	8592865545	1 PG PHYSICS	4	4	4	4
16	04-03-2022	Devi Sasidharan	devisindhusasidharan@gmail.com	9497183523	M.sc Physics First year	4	4	3	3

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Photos



Sample Certificate



Brincy Mathew

Dr. Brincy Mathew

Add-on Course General Coordinator

Sunil C Mathew

Principal

Deva Matha College

Kuravilangad - 686 633