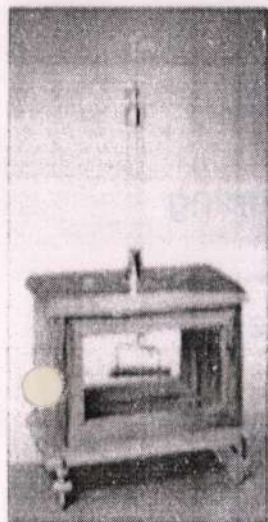
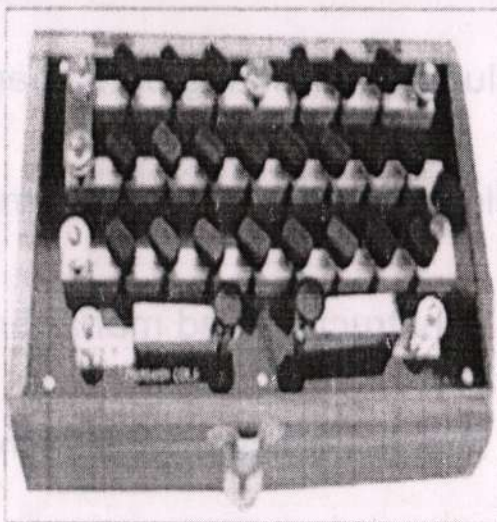


Mahatma Gandhi College
Department Of Physics
Add on course - 2020-21
Repair and maintenance of lab equipments



Vibration Magnetometer



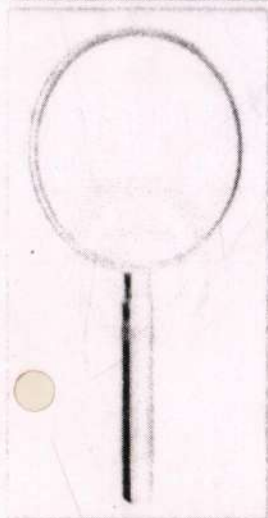
P.O.Box



Spherometer



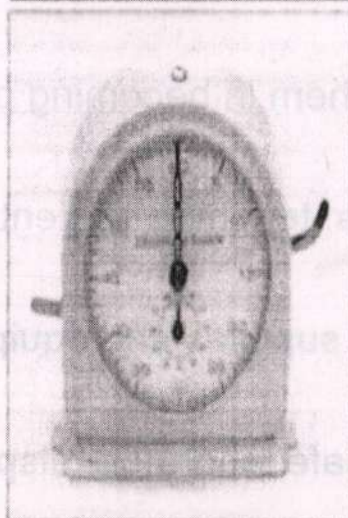
Bar Magnet U-Magnet



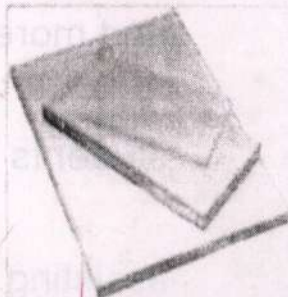
Hand Lens Metallic



Screw Gauge



Stop Clock



Glass slab



Prism

REPAIR AND MAINTENANCE OF BASIC LAB EQUIPMENTS

The broad objectives of this programme:

The program's broad aims include familiarizing participants with the basic tools used in college-level physics labs, imparting knowledge of the basics of lab construction and management, and more. The following goals should be achieved: teaching students how to use and maintain basic laboratory instruments; assisting them in becoming proficient in standard laboratory techniques; teaching students how to obtain and store laboratory supplies and equipment; and assisting them in adopting safe laboratory disposal practices.

Enrollment List Of students 2020 - 21

Sl No	Reg No	NAME
1	23020118001	ABHIRAMI R.SEKHAR
2	23020118002	ABHISHEK G S
3	23020118003	ADITHYAN . S
4	23020118004	AJAY S
5	23020118005	AKSHAYA . A . S
6	23020118006	AMAL. A. NAIR
7	23020118007	ANJAI VINOD
8	23020118008	ANJANA JOSE. J
9	23020118009	ANOOP S
10	23020118010	APARNA J S
11	23020118011	ARDRA S
12	23020118012	ARYA M.R.
13	23020118013	DEVA NARAYAN S
14	23020118014	GG KRISHNAN
15	23020118015	KARTHIKA. S. NAIR
16	23020118016	LEKSHMI SURESH
17	23020118017	MUJEEB RAHUMAN.S
18	23020118018	NANDANA GOPAN
19	23020118019	NIKITHA SYAM
20	23020118020	PALLAVI A D
21	23020118021	PRANAV. P
22	23020118022	REMYA B
23	23020118023	RENJITH LAL. S. B
24	23020118024	ROHITH U
25	23020118025	ROOPA D M
26	23020118026	SOORAJ S
27	23020118027	VISAKH S
28	23020118028	VISAKH.B
29	23020118029	ABHIJITH M
30	23020118030	ABHIRAMI B S
31	23020118031	ABHISHEK P B
32	23020118032	ABHISHEK. A
33	23020118033	ADHWAITH.S.J
34	23020118034	AKSHAY J.M
35	23020118035	ANAND P NAIR
36	23020118036	ANIKA M S
37	23020118037	ANOOP A S
38	23020118038	ARATHY. L .S
39	23020118039	ASWIN G L
40	23020118040	ASWIN J S

41	23020118041	ASWIN M S
42	23020118042	BHARATHKRISHNA P S.
43	23020118043	DETHAN R S
44	23020118044	GAUTHAMY ANIL
45	23020118045	KISHORE MADHAV
46	23020118046	LEKSHMI PRADEEP. S
47	23020118047	NANDA. S. S
48	23020118048	PREETHI P.S.
49	23020118049	SABARIKANTH S S
50	23020118051	
51	23020118052	SYAMKUMAR. S
52	23020118053	
53	23020118054	JAZIM IBRAHIM
54	23020118055	NANDANA. A.S
55	23020118056	NOUREEN S N
56	23020118057	SREENADH.S
57	23020118058	PRAVEENA V GOPAL
58	23018118006	ASWIN K BABU
59	23018118007	ASWINI KURUP
60	23018118008	DEVIKA V S
61	23018118009	GAUTAM R
62	23018118010	GOPIKA G NAIR
63	23018118012	KARTHIK H
64	23018118016	NANDU J S
65	23018118017	ROY S JOHN
66	23018118018	SANJAY SANTHOSH
67	23018118019	SARANG S S
68	23018118020	SUSHIL G
69	23018118022	VISHNU CHANDRAN C K
70	23018118023	VISHNU SURESH
71	23018118024	VIVEK G KISHORE
72	23018118025	ABHIJITH V S
73	23018118026	ADITHYA A S
74	23018118027	ADITHYA ANIL
75	23018118028	AKHIL R D
76	23018118029	AKHILA A A
77	23018118030	AMBADI THULASI
78	23018118031	ANAND C
79	23018118034	ANU CHANDRAN M
80	23018118035	ARJUN A S
81	23018118036	ARJUN MANOJ
82	23018118037	ASWIN R L
83	23018118038	ATHIRA S
84	23018118039	ATHULYA R
85	23018118040	BHAVYA S NAIR

86	23018118041	DEVIKA P KUMAR
87	23018118042	DEVIKA B
88	23018118043	G A GOKUL
89	23018118044	HARISANKAR V S
90	23018118045	JISHMA M S
91	23018118046	KARTHIKESAN B S
92	23018118047	KASYAP S ASHTTAMAN
93	23018118048	LEKSHMI A S
94	23018118049	MITHUN S
95	23018118051	PRANAV P
96	23018118052	RAHUL U C
97	23018118053	RESHMI R
98	23018118054	S A DEVANARAYANAN
99	23018118055	ASLAM A
100	23019118001	ADHARSH M R

Syllabus

30 Hours

A broad description of the tools in a physics lab equipment that is fundamental or all-encompassing, optical, electrical, and electronic.

Timer, telescope optical lever, spectrometer, prism, concave and convex lenses, and weight box are a few examples. arrangements for labs and dark rooms; utilities, such as water and power, are available in the physics lab; Tools for calculating length and time include Vernier callipers and a screw gauge spherometer. digital stopwatch, timer, and clock; permanent magnets

Typical electrical parts and circuits include ammeters, voltmeters, galvanometers, potential differences, resistance, and power. Resistors (with color coding), rheostats, resistance coils, resistance boxes, tap keys, capacitors, inductors, transformers, primary and secondary cells, one-way and two-way keys, and capacitance are some examples of electrical circuit components. managing and maintaining multimeters and potentiometers. Utilization of computer , study of computer major parts and programming basics.

83	23019118018	RESHMA B S											
84	23019118019	SYEDATH NASEEBA S		a									
85	23019118020	A J RAHUL KRISHNA				a							
86	23019118021	AADHYA M J						a	a				
87	23019118022	ABHIJITH B S		a									
88	23019118023	ADARSH A S											
89	23019118024	AISWARYA R P											
90	23019118025	AISWARYA S A						a				a	
91	23019118026	AJMAL S											
92	23019118027	AKASH M A				a							
93	23019118028	AKSHARA R S											
94	23019118029	AMAL J											
95	23019118030	AMAL S R	a										
96	23019118031	AMRUTHA R											
97	23019118032	ANAMIKA H T											
98	23019118033	ANASWARA JOSE V											
99	23019118034	ARATHY A S						a					
100	23019118035	ARCHANA S K								a			

Prasanna

HEAD
DEPARTMENT OF PHYSICS
MAHATMA GANDHI COLLEGE
THIRUVANANTHAPURAM

Test Paper

1. Which instrument is used to measuring electrical currents in amperes?
 - Altimeter
 - Ammeter
 - Voltmeter
 - None of this

2. Which instrument is used to continuous recording of atmospheric pressure?
 - Calorimeter
 - Barometer
 - Hygrometer
 - None of this

3. Accuracy is defined as:
 - A measure of how often an experimental value can be repeated.
 - The closeness of a measured value to the real value.
 - The number of significant figures used in a measurement.
 - None of these

4. Which instrument is used to measuring quantities of heat?
 - Barometer
 - Hygrometer
 - Thermometer
 - Calorimeter

5. Which instrument is used to measure potential difference between two points?
 - Ammeter
 - Voltmeter
 - Stethoscope
 - Anemometer

6. The least count of a vernier calliper is also known as _____.
 - Vernier count
 - Vernier sample
 - Vernier constant
 - Vernier calibration

7. Which instrument is used to measure depth of ocean?
 - Fathometer
 - Hygrometer

Odometer

None of this

8. The least count of Screw gauge is

0.01 cm

0.01mm

0.001 cm

0.001 mm

9. Which instrument used for recording sound under water?

Hydrophone

Hydrometer

Hygrometer

None of this

10. Which instrument for recording electrical mechanical vibrations?

Stethoscope

Oscillograph

Odometer

None of this

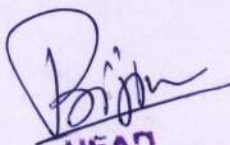
Repair and Maintenance Of Basic Laboratory Equipment

SI No	Reg No	Name	20
1	23020118001	ABHIRAMI R.SEKHAR	20
2	23020118002	ABHISHEK G S	20
3	23020118003	ADITHYAN . S	19
4	23020118004	AJAY S	18
5	23020118005	AKSHAYA . A . S	17
6	23020118006	AMAL. A. NAIR	20
7	23020118007	ANJAI VINOD	16
8	23020118008	ANJANA JOSE. J	17
9	23020118009	ANOOP S	18
10	23020118010	APARNA J S	19
11	23020118011	ARDRA S	15
12	23020118012	ARYA M.R.	16
13	23020118013	DEVA NARAYAN S	18
14	23020118014	GG KRISHNAN	19
15	23020118015	KARTHIKA. S. NAIR	20
16	23020118016	LEKSHMI SURESH	20
17	23020118017	MUJEEB RAHUMAN.S	17
18	23020118018	NANDANA GOPAN	18
19	23020118019	NIKITHA SYAM	17
20	23020118020	PALLAVI A D	19
21	23020118021	PRANAV. P	20
22	23020118022	REMYA B	18
23	23020118023	RENJITH LAL. S. B	19
24	23020118024	ROHITH U	20
25	23020118025	ROOPA D M	19
26	23020118026	SOORAJ S	18
27	23020118027	VISAKH S	19
28	23020118028	VISAKH.B	18
29	23020118029	ABHIJITH M	19
30	23020118030	ABHIRAMI B S	20
31	23020118031	ABHISHEK P B	17
32	23020118032	ABHISHEK. A	18
33	23020118033	ADHWAITH.S.J	17
34	23020118034	AKSHAY J.M	18
35	23020118035	ANAND P NAIR	19
36	23020118036	ANIKA M S	18
37	23020118037	ANOOP A S	18
38	23020118038	ARATHY. L .S	20
39	23020118039	ASWIN G L	19
40	23020118040	ASWIN J S	18
41	23020118041	ASWIN M S	17
42	23020118042	BHARATHKRISHNA P S.	20
43	23020118043	DETHAN R S	19

(Handwritten signatures and initials in blue ink, corresponding to the names in the table, are written vertically along the right side of the page.)

44	23020118044	GAUTHAMY ANIL	18	<i>Gautham</i>
45	23020118045	KISHORE MADHAV	17	<i>Kishore</i>
46	23020118046	LEKSHMI PRADEEP. S	19	<i>Lekshmi</i>
47	23020118047	NANDA. S. S	18	<i>Nanda</i>
48	23020118048	PREETHI P.S.	15	<i>Preethi</i>
49	23020118049	SABARIKANTH S S	14	<i>Sabarikanth</i>
50	23020118051	SNEHA P		<i>Sneha</i>
51	23020118052	SYAMKUMAR. S	18	<i>Syamkumar</i>
52	23020118053	VISHAL. B		<i>Vishal</i>
53	23020118054	JAZIM IBRAHIM	17	<i>Jazim</i>
54	23020118055	NANDANA. A.S	18	<i>Nandana</i>
55	23020118056	NOUREEN S N	19	<i>Noureen</i>
56	23020118057	SREENADH.S	18	<i>Sreenadh</i>
57	23020118058	PRAVEENA V GOPAL	17	<i>Praveena</i>
58	23018118041	DEVIKA P KUMAR	20	<i>Devika</i>
59	23018118042	DEVIKA B	18	<i>Devika</i>
60	23018118043	G A GOKUL	19	<i>G.A. Gokul</i>
61	23018118044	HARISANKAR V S	18	<i>Harisankar</i>
62	23018118045	JISHMA M S	18	<i>Jishma</i>
63	23018118046	KARTHIKESAN B S	18	<i>Karthikesan</i>
64	23018118047	KASYAP S ASHTTAMAN	18	<i>Kasyap</i>
65	23018118048	LEKSHMI A S	19	<i>Lekshmi</i>
66	23018118049	MITHUN S	19	<i>Mithun</i>
67	23018118051	PRANAV P	20	<i>Pranav</i>
68	23018118052	RAHUL U C	19	<i>Rahul</i>
69	23018118053	RESHMI R	19	<i>Reshmi</i>
70	23018118054	S A DEVANARAYANAN	19	<i>S.A. Devanarayanan</i>
71	23018118055	ASLAM A	19	<i>Aslam</i>
72	23019118001	ADHARSH M R	18	<i>Adharsh</i>
73	23019118002	AJIN U V	19	<i>Ajin</i>
74	23019118003	AKSHAY V NAIR	18	<i>Akshay</i>
75	23019118004	AMRITHA S VINOJ	20	<i>Amritha</i>
76	23019118005	AMRUTHA S	19	<i>Amrutha</i>
77	23019118006	ANJALI M S	18	<i>Anjali</i>
78	23019118010	GOPIKRISHNA R	17	<i>Gopikrishna</i>
79	23019118011	GOUTHAM B	17	<i>Goutham</i>
80	23019118012	HONEY S K	18	<i>Honey</i>
81	23019118016	PRANAV M P	19	<i>Pranav</i>
82	23019118017	RAJKAMAL S	18	<i>Rajkamal</i>
83	23019118018	RESHMA B S	17	<i>Reshma</i>
84	23019118019	SYEDATH NASEEBA S	20	<i>Syedath</i>
85	23019118020	A J RAHUL KRISHNA	80	<i>A.J. Rahul Krishna</i>
86	23019118021	AADHYA M J	20	<i>Aadhyas</i>
87	23019118022	ABHIJITH B S	19	<i>Abhijith</i>
88	23019118023	ADARSH A S	18	<i>Adarsh</i>
89	23019118024	AISWARYA R P	20	<i>Aiswarya</i>

90	23019118025	AISWARYA S A	19	Aiswarya
91	23019118026	AJMAL S	20	Ajmal
92	23019118027	AKASH M A	20	Akash
93	23019118028	AKSHARA R S	18	Akshara
94	23019118029	AMAL J	17	Amal
95	23019118030	AMAL S R	19	Amal S
96	23019118031	AMRUTHA R	18	Amrutha
97	23019118032	ANAMIKA H T	19	Anamika
98	23019118033	ANASWARA JOSE V	18	Anaswara
99	23019118034	ARATHY A S	20	Arathy
100	23019118035	ARCHANA S K	20	Archana


 HEAD
 DEPARTMENT OF PHYSICS
 MAHATMA GANDHI COLLEGE
 THIRUVANANTHAPURAM

Feedback : Repair and Maintenance Of Basic Laboratory Equipment

Sl No	Reg No	Name	Excellent	Very good	Good	Satisfactory	poor
1	23020118001	ABHIRAMI R.SEKHAR	✓				
2	23020118002	ABHISHEK G S	✓				
3	23020118003	ADITHYAN . S		✓			
4	23020118004	AJAY S			✓		
5	23020118005	AKSHAYA . A . S			✓		
6	23020118006	AMAL. A. NAIR				✓	
7	23020118007	ANJAI VINOD				✓	
8	23020118008	ANJANA JOSE. J				✓	
9	23020118009	ANOOP S				✓	
10	23020118010	APARNA J S				✓	
11	23020118011	ARDRA S				✓	
12	23020118012	ARYA M.R.				✓	
13	23020118013	DEVA NARAYAN S				✓	
14	23020118014	GG KRISHNAN				✓	
15	23020118015	KARTHIKA. S. NAIR				✓	
16	23020118016	LEKSHMI SURESH				✓	
17	23020118017	MUJEEB RAHUMAN.S				✓	
18	23020118018	NANDANA GOPAN				✓	
19	23020118019	NIKITHA SYAM				✓	
20	23020118020	PALLAVI A D			✓		
21	23020118021	PRANAV. P			✓		
22	23020118022	REMYA B			✓		
23	23020118023	RENJITH LAL. S. B	✓				
24	23020118024	ROHITH U	✓				
25	23020118025	ROOPA D M	✓				
26	23020118026	SOORAJ S	✓				
27	23020118027	VISAKH S	✓				
28	23020118028	VISAKH.B	✓				
29	23020118029	ABHIJITH M	✓				
30	23020118030	ABHIRAMI B S	✓				
31	23020118031	ABHISHEK P B	✓				
32	23020118032	ABHISHEK. A	✓				
33	23020118033	ADHWAITH.S.J	✓				
34	23020118034	AKSHAY .J.M	✓				
35	23020118035	ANAND P NAIR	✓				
36	23020118036	ANIKA M S	✓				

37	23020118037	ANOOP A S					
38	23020118038	ARATHY. L .S		✓			
39	23020118039	ASWIN G L		✓			
40	23020118040	ASWIN J S			✓		
41	23020118041	ASWIN M S			✓		
42	23020118042	BHARATHKRISHNA P S.	✓				
43	23020118043	DETHAN R S	✓				
44	23020118044	GAUTHAMY ANIL	✓				
45	23020118045	KISHORE MADHAV	✓				
46	23020118046	LEKSHMI PRADEEP. S	✓				
47	23020118047	NANDA. S. S	✓				
48	23020118048	PREETHI P.S.		✓			
49	23020118049	SABARIKANTH S S		✓			
50	23020118051	SNEHA P		✓			
51	23020118052	SYAMKUMAR. S		✓			
52	23020118053	VISHAL. B		✓			
53	23020118054	JAZIM IBRAHIM		✓			
54	23020118055	NANDANA. A.S			✓		
55	23020118056	NOUREEN S N				✓	
56	23020118057	SREENADH.S				✓	
57	23020118058	PRAVEENA V GOPAL			✓	✓	
58	23018118041	DEVIKA P KUMAR			✓	✓	
59	23018118042	DEVIKA B			✓	✓	
60	23018118043	G A GOKUL			✓	✓	
61	23018118044	HARISANKAR V S			✓	✓	
62	23018118045	JISHMA M S			✓	✓	
63	23018118046	KARTHIKESAN B S			✓	✓	
64	23018118047	KASYAP S ASHTTAMAN			✓	✓	
65	23018118048	LEKSHMI A S			✓	✓	
66	23018118049	MITHUN S			✓	✓	
67	23018118051	PRANAV P			✓	✓	
68	23018118052	RAHUL U C			✓	✓	
69	23018118053	RESHMI R			✓	✓	
70	23018118054	S A DEVANARAYANAN			✓	✓	
71	23018118055	ASLAM A			✓	✓	
72	23019118001	ADHARSH M R			✓	✓	
73	23019118002	AJIN U V			✓	✓	
74	23019118003	AKSHAY V NAIR			✓	✓	
75	23019118004	AMRITHA S VINOJ			✓	✓	
76	23019118005	AMRUTHA S			✓	✓	
77	23019118006	ANJALI M S			✓	✓	
78	23019118010	GOPIKRISHNA R			✓	✓	
79	23019118011	GOUTHAM B			✓	✓	

80	23019118012	HONEY S K	✓				
81	23019118016	PRANAV M P	✓				
82	23019118017	RAJKAMAL S	✓				
83	23019118018	RESHMA B S		✓			
84	23019118019	SYEDATH NASEEBA S		✓			
85	23019118020	A J RAHUL KRISHNA		✓			
86	23019118021	AADHYA M J		✓			
87	23019118022	ABHIJITH B S		✓			
88	23019118023	ADARSH A S		✓			
89	23019118024	AISWARYA R P		✓			
90	23019118025	AISWARYA S A		✓			
91	23019118026	AJMAL S		✓			
92	23019118027	AKASH M A		✓			
93	23019118028	AKSHARA R S		✓			
94	23019118029	AMAL J		✓			
95	23019118030	AMAL S R			✓		
96	23019118031	AMRUTHA R			✓		
97	23019118032	ANAMIKA H T			✓		
98	23019118033	ANASWARA JOSE V			✓		
99	23019118034	ARATHY A S			✓		
100	23019118035	ARCHANA S K			✓		

Biju

DEPARTMENT OF PHYSICS
MAHATMA GANDHI COLLEGE
THIRUVANANTHAPURAM


DEPARTMENT OF PHYSICS
MAHATMA GANDHI COLLEGE, THIRUVANANTHAPURAM

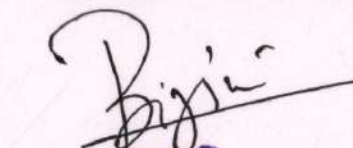
CERTIFICATE

It is certified that Mr./Ms. Amal S.R......has participated in the Add-on course **Repair and Maintenance of Basic lab equipment** conducted by this department during 2020-21.


Coordinator


Head of the Department



Principal


HEAD
DEPARTMENT OF PHYSICS
MAHATMA GANDHI COLLEGE
THIRUVANANTHAPURAM

Report Of Course

The course was successfully delivered to 100 students for a total of 30 hours of theory and lab experience. Students recognized the importance of laboratory maintenance for the safety of laboratory personnel, the accuracy and reliability of experimental results, the longevity of equipment and facilities, and the efficiency of experiments. The students found that if the devices were maintained regularly and in good quality, the useful life of the devices would be longer. Without regular maintenance, equipment failures occur more frequently, requiring more repairs. The importance of keeping equipment in good condition is well known, and some equipment was given regular maintenance to match. Basic computer knowledge for programming was discussed.




HEAD
DEPARTMENT OF PHYSICS
MAHATMA GANDHI COLLEGE
THIRUVANANTHAPURAM