

**Minutes of the meeting of Board of studies for M.Sc.
(Physics) conducted on 16 October 2020**

The Board of Studies of the Department of Physics (Shift II) was convened on 16.10.2020 at 3:00 P.M. via GMeet link (<https://meet.google.com/iot-qcjd-ybx>). In the meeting suggestions to improve the syllabus was discussed and the following changes were.

M.Sc. (Physics)

The following changes are to be incorporated in the syllabus effective from June 2020 onwards:

- 1) The order of papers previously handled in the 4 semesters have been changed.

Semester	Previous Paper Order	Current Paper Order
I	Mathematical Physics I	Mathematical Physics I
	Classical Mechanics and Relativity	Classical Mechanics
	Quantum Mechanics I	Electromagnetic Theory
	Integrated Electronics	Integrated Electronics
II	Mathematical Physics II	Mathematical Physics II
	Quantum Mechanics II	Quantum Mechanics I
	(Elective I) Spectroscopy	(Elective I) Spectroscopy General Relativity Group Theory
	Microprocessor Fundamentals 8085	Introduction to Microprocessor & Microcontroller 8051
III	Statistical Mechanics	Statistical Mechanics
	Electromagnetic Theory & Plasma Physics	Quantum Mechanics II
	(Elective II) Microprocessor 8086 and Microcontroller 8051	(Elective II) Medical Physics Relativistic Quantum Mechanics Laser & Non-linear Optics
	Materials Synthesis and Characterization	Materials Synthesis and Characterization

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2) In the following papers certain units are rearranged as well as necessary inclusions have been made for us to be updated with the requirements both academically and industrial needs. (The changes are submitted in the Enclosure 2.)

1. Classical Mechanics
2. Electromagnetic Theory
3. Quantum Mechanics I
4. Statistical Mechanics
5. Quantum Mechanics II
6. Nuclear and Particle Physics
7. Condensed Matter Theory
8. Materials Synthesis and Characterization
9. Computational Methods and C Programming
10. Introduction to Microprocessor and Microcontroller 8051

3) The practical's is decided to be conducted in yearly basis and some improvements have been made by adding some experiments and programmings.

Paper	Experiments
Core Practical I (General)	✓ Determination of particle size of lycopodium powder using semiconductor laser
Core Practical III (Microprocessor 8085 & Microcontroller 8051)	<ul style="list-style-type: none"> ✓ Darkness activated garden light using LDR module ✓ LPG gas leakage detector using MQ2 sensor. ✓ LCD rolling message display. ✓ Range/ Distance measurement using ultrasonic sensor
Core Practical-IV (C-Programming)	<ul style="list-style-type: none"> ✓ Fitting a Straight line with Algorithm, Flow-chart, C PROGRAM and output. ✓ Fitting a curve $y = ax^b$ with Algorithm, Flow-chart, C PROGRAM and output ✓ Fitting an exponential curve $y = ae^{bx}$ with Algorithm, Flow-chart, C PROGRAM and output. ✓ Fitting an parabola with Algorithm, Flow-chart, C PROGRAM and output

4) From the academic year 2020 onwards the concept of basket of Electives is to be introduced.

Signature

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Elective I:

Spectroscopy
General Relativity
Group Theory

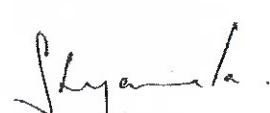
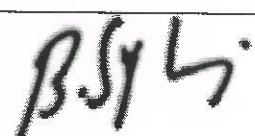
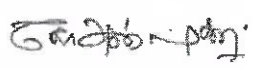
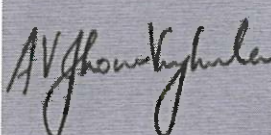
Elective II:

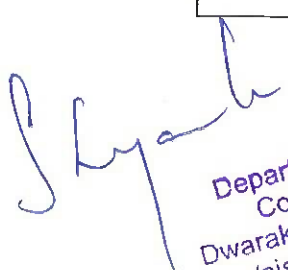
Medical Physics
Relativistic Quantum Mechanics
Laser & Non-linear Optics

5) In the Spectroscopy, the Unit 2 Normal Coordinates Analysis is replaced by Resonance Spectroscopy. The unit Tensors and Group Theory have been shifted between Mathematical Physics I and Mathematical Physics II.

As members of the Board, we are aware of the above suggestions and endorse the same

Board Members:

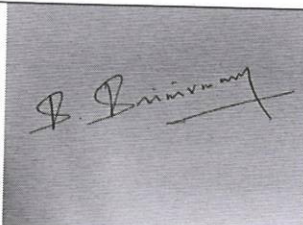
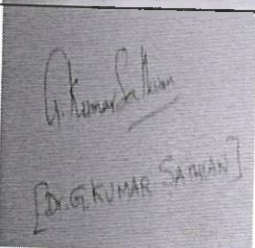

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1	Chair Person Dr. S. Shyamala, M.Sc., M.Phil., M.E., Ph.D., Head and Advisor, Department of Physics, D.G. Vaishnav College, Chennai 600 106.	
2	Senior Faculty Dr. S. Sylaja, M.Sc., M.Phil., Ph.D., Assistant Professor, Department of Physics, D.G. Vaishnav College, Chennai 600 106.	
3	University Nominee Dr. G. Anbalagan, M.Sc., Ph.D. Professor, Department of Nuclear Physics, University of Madras, Guindy Campus, Chennai – 600 025.	
4	Subject Expert Dr. A.V. Jhone Verjhula, M.Sc., M.Phil., Ph.D., SLET, Assistant Professor/Head of the Department Ethiraj College for Women, Chennai – 600 034.	







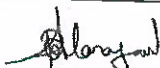
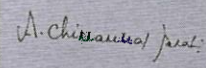
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6	Industry Expert Dr. G. Kumar Sathian, M.Sc., M.Phil., Ph.D., Former HOD Physics & Academic Dean, Madras Christian College, Tambaram. Proprietor, Floranix, Adayar, Chennai – 600 020.	
7	Alumni K. Gomathi (M.Sc. Physics (Shift II) 2002- 2004 Batch) Assistant Professor, Department of Physics (Shift II), D.G. Vaishnav College, Chennai – 600 106.	

Curriculum Review Committee Members:






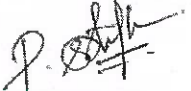
Sl. No.	Name	Designation	Signature
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2	Dr. B. Sylaja, M.Sc., M.Phil., Ph.D.	Asst Prof	
3	Dr. Z. Delci, M.Sc., M.Phil., Ph.D.	Asst Prof	
4	K. Laavanya, M.Sc., M.Phil.(Ph.D.)	Asst Prof	
5	Dr. P. Arularasan, M.Sc., Ph.D.	Asst Prof	
6	Dr. A. Chinnammal Janaki, M.Sc., M.Phil., Ph.D.	Asst Prof	

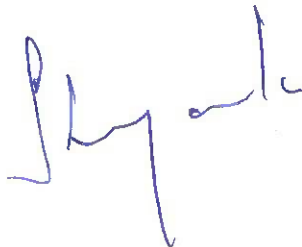


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9	K. Gomathi, M.Sc., B.Ed., M.Phil., SET, (Ph.D.)	Asst Prof	
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11	J. Pragadeesh M.Sc., M.Phil., SET	Asst Prof	
12	P. Sathishkumar M.Sc., M.Phil., SET	Asst Prof	





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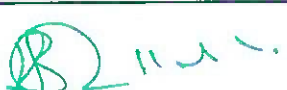
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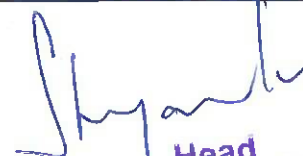
CRITERION 1 - CURRICULAR ASPECTS
1.1 CURRICULUM DESIGN & DEVELOPMENT

PROGRAMME NAME & CODE : M.Sc PHYSICS & 22

**1.1.2 - LIST OF COURSES FOR WHICH SYLLABUS REVISION HAS BEEN CARRIED OUT AS PER
THE APPROVED MINUTES OF THE BOS MEETING HELD ON 16TH OCTOBER 2020**

SL. NO	SEMESTER	COURSE CODE	COURSE NAME	OLD / NEW COURSE / SYLLABUS REVISION	YEAR OF INTRODUCTION - SYLLABUS REVISION & NEW COURSE
1	I	22101	Core Paper 1 – Mathematical Physics I	OLD	-
2	I	22102	Core Paper II – Classical Mechanics	SYLLABUS REVISION	2020-2021
3	I	22103	Core Paper III – Paper XII – Electromagnetic Theory	SYLLABUS REVISION	2020-2021
4	I	22104	Core Paper IV – Integrated Electronics	OLD	-
5	II	22205	Core Paper V – Mathematical Physics II	OLD	-
6	II	22206	Core Paper VI – Quantum Mechanics I	SYLLABUS REVISION	2020-2021
7	II	22207A/ 22207B/ 22207C	Elective I - Paper IX – General relativity/Group Theory/ Spectroscopy	NEW	2020-2021
8	II	22208	Paper X - Advanced Course I - Introduction to Microprocessor and Microcontroller 8051	NEW	2020-2021
9	II	22209	Core Paper VII- Practical I	SYLLABUS REVISION	2020-2021
10	II	22210	Core Paper VIII- Practical II	OLD	-
11	III	22311	Core Paper XI – Statistical Mechanics	SYLLABUS REVISION	2021-2022
12	III	22312	Core Paper XII – Quantum Mechanics II	SYLLABUS REVISION	2021-2022
13	III	22313	Paper XV – Elective II - Relativistic Quantum Mechanics /Laser & Non linear Optics/Medical Physics	NEW	2021-2022
14	III	22314	Paper XVI – Extra Disciplinary Paper II - Materials Synthesis and Characterization	SYLLABUS REVISION	2021-2022


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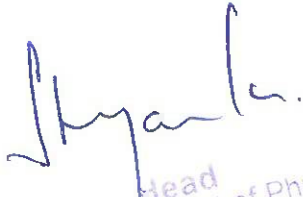
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15	IV	22415	Core Paper XVII – Condensed Matter Physics	SYLLABUS REVISION	2021-2022
16	IV	22416	Core Paper XVIII– Nuclear & Core Paper XVI– Nuclear & Particle Physics	SYLLABUS REVISION	2021-2022
17	IV	22417	Paper XIX – Elective III - Computational Methods and C programming	SYLLABUS REVISION	2021-2022
18	IV	22418	Core Paper XIII -Practical III	SYLLABUS REVISION	2021-2022
19	IV	22419	Core Paper XIV - Practical IV	SYLLABUS REVISION	2021-2022


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