J. J. COLLEGE OF ARTS AND SCIENCE (Autonomous)
Sivapuram, Pudukkottai – 622 422
(Re-Accredited by NAAC – 4th Cycle)
Affiliated to Bharathidasan University, Tiruchirappalli
DEPARTMENT OF PHYSICS
Minutes of the Board of Studies Meeting

Meeting No.: 10 **Date:** 18 - 04- 2026

The Meeting of the Board of Studies in Physics (U.G. and P.G.) for the **Eighth revision of the curricula** to be implemented from **2026-2027**, was conducted at 11.00 a.m. on Saturday, 18.04.2026

Members Present:

S.No.	Name	Designation	Signature
1.	**Dr. M. K. Murali** Assistant Professor and Head Department of Physics	Chairman	
2.	**Dr. T. C. Sabari Girisun,** Assistant Professor, Department of Physics, Bharathidasan University,Tircchirappalli-620024	University Nominee	
3.	**Dr. N. Anandhan,** Associate Professor, Department of Physics, Advanced Materials and Thin Film Labotatory, Science Campus, Alagappa University,Karaikudi-630 003.	Subject Expert	
4.	**Dr. M. Karnan,** Associate Professor, Department of Physics, Pondicherry university,Puducherry-605014	Subject Expert	
5.	**Dr. K. Dhanabalan** Assistant Professor	Faculty Member	
6.	**Ms. P. Parameswari** Assistant Professor	Faculty Member	
7.	**Mr. S. Dhanachayan** Assistant Professor	Faculty Member	
8.	**Dr. G. Senthilkumar** Assistant Professor	Faculty Member	
9.	**Dr. S. Sivasakthi** Assistant Professor	Faculty Member	
10.	**Mrs. S. Kavitha Sreethar kumar** Kumaran Scientific Co., Tiruchirappalli.	Representative from Industry	
11	**Dr. A. Ramu** Asst. Professor of Physics, Ganesar College of Arts and science, Melaisivapuri, Pudukkottai-622 403.	Alumni	

1) 2) 3) 4) 5) 6)

The Chairman Dr. M. K. Murali chaired the meeting and welcomed all the members to the Tenth BOS Meeting Considering

It was resolved

1. To approve the revised UG and PG curriculum, in accordance with the guidelines of UGC-LOCF, NAAC, TANSCHE and the Parent University.
2. To approve the Curriculum, Course Structure (Syllabi) and Textbooks recommended for implementation from the academic year 2026-2027 onwards.
3. To approve the General Course Structure for the B.Sc. and M.Sc. Physics Programmes, along with the syllabi for the first two semesters, were discussed and scrutinized for implementation from the academic year 2026-27 onwards.
4. To approve the following course structure for UG and PG Programmes respectively.

Distribution of Courses – UG

Part	Semester	Course	No. of Courses	Credit	Marks
I	1 - 4	Language – (Tamil/Hindi/French/Sanskrit)	04	12	400
II	1 - 4	Language – English	04	12	400
III	1 - 6	Core Course (Theory)	15	**96** (CC – 69, AC – 18, DSE – 09)	2400
	1 - 4	Allied Course (Theory)	06		
	5 & 6	Discipline Specific Elective	03		
IV	5	Internship	01	02	100
	3, 4 & 5	Skill Enhancement Course (SEC)	03	06	1200
	1 & 2	Generic Elective Course (IDC)	02	04	
	3, 4, 5 & 6	Ability Enhancement Compulsory Course (AECC) (EVS, VE, DM, GS)	04	08	
	4 & 5	Self – Learning Course	02	04	
	6	Value Added Course	01	02	
V	3	Health and Wellness	01	01	100
	6	Extension Activity	-	01	-
Grand Total			**46**	**148**	**4600**

Distribution of Courses – PG

S.No.	Semester	Course	No. of Courses	Credit	Marks
1.	1 - 4	Core Courses (Theory & Practical)	12	60	1200
2.	1 & 2	Discipline Specific Elective Course	03	12	300
3.	1 - 3	Skill Enhancement Course	03	09	300
4.	3	Generic Elective Course	01	03	100
5.	4	Project Work	01	07	100
6.	3	Internship	01	02	100
7.	2	Self – Learning Course	01	02	100
		Grand Total	**22**	**95**	**2200**
8.	4	Value Added Course (Extra Credit Course)	01	02	100

5. To approve the changes made in the curriculum based on the special feedback received from all stake holders on the existing curricula, courses and Syllabi.
6. To adopt the revised Bloom's Taxonomy in framing the Course Outcomes.
7. To approve the newly incorporated guidelines on Curriculum Design prescribed by NAAC.
   - **a.** The curriculum framework has been aligned with OBE by defining POs, COs & PEOs/PSOs.
   - **b.** Generic Open Elective Courses for UG and PG Programmes have been designed in alignment with the CBCS to ensure curriculum flexibility.
   - **c.** Practical and Industry focused field work/project and Internship Training have been incorporated into the curriculum.
   - **d.** Skill oriented courses offered by the Departments are aligned with NCrF, NSQF, and NHEQF.
   - **e.** Greater focus has been given to in corporate components of Indian Knowledge Systems into the curriculum.
   - **f.** Online courses for UG and PG through SWAYAM / SWAYAM PLUS have been incorporated into the curriculum.
   - **g.** A relationship matrix mapping for COs, POs and PSOs has been implemented for all courses.
   - **h.** The Curriculum addresses local, regional, national and global needs.
   - **i.** Courses focus on Employability, Entrepreneurship and Skill Development.
   - **j.** Courses also emphasize Gender, Environment and Sustainability, Human Values and Professional Ethics.

8. To approve the inclusion of a self-learning course from SWAYAM / SWAYAM PLUS for the UG programme in the 4th semester, carrying two credits and 100 marks, and a subject related self-learning course offered by the department in the 5th Semester also carrying two credits and 100 marks.
9. To approve that, in the fourth semester, if a student is unable to complete the SWAYAM course, the student shall be permitted to take an optional course offered by the Department under the self-learning category only in the final semester.
10. To approve the inclusion of self-learning course from SWAYAM / SWAYAM PLUS for PG programme in the 2 nd Semester carrying two credits and 100 marks.
11. To approve the inclusion of Value Added Course in the sixth semester for the UG Programme under Part – IV.
12. To approve the Value Added Course to be treated an extra credit course for all PG Programmes. The credit will not be included in CGPA.
13. To approve the new evaluation pattern of CIA – 30, ESE –70 for both UG and PG programmes as per the guidelines given by UGC and TANSCHE on Examination and Evaluation reforms.
14. To approve the following pattern for the calculation of CIA

UG		PG	
Category	**Marks**	**Category**	**Marks**
Mid-Semester	7.5	Mid-Semester	7.5
Model Exam	7.5	Model Exam	7.5
Assignment 1	05	Assignment 1	05
Assignment 2	05	Assignment 2	05
Attendance	05	Quiz / Seminar	05
Total	**30**	**Total**	**30**

15. To approve the following question paper pattern for the ESE – 70 marks:

S. No	Section	Marks
1	Part - A	10 x1 = 10 (5 MCQ & 5 Fill in the blanks)
2	Part - B	5 x 2 = 10 Marks
3	Part - C	5x4 = 20 marks (either… or choice/)
4	Part - D	3x10 = 30 marks (Open choice)
Total		**70 marks**

16. To approve the following evaluation pattern for the UG & PG project:

S. No	Description	Marks
1	Plan of the Project	20
2	Logical Execution of the Plan	40
3	Innovation	
4	Usage of Modern Tools / Technology	
5	Individual Contribution / Group Activity	
6	Project Report	20
7	Viva-Voce	20
Total		**100**

17. To approve the internship training shall be undertaken by UG students during their IV semester summer vacation and by PG students during their II semester summer vacation with a duration of 15 to 21 working days.

18. To approve the continuance of awarding credits for the internship course to be reflected in the 5th Semester mark statement for UG programmes and in the III semester mark statement for PG programmes. The scheme for awarding marks for UG and PG programmes are as follows:

S. No	Description	Marks
1	Report	50
2	Viva -Voce	50
Total		**100**

19.To continue to follow the existing evaluation system for the Health and Wellness Course

Scheme of Evaluation:

Part	Description	Marks
A	Report	40
B	Attendance	20
C	Activities (Observation During Practice)	40
Total		**100**

20. To approve the inclusion of Introduction to Disaster Management as Ability Enhancement Course in the 5th Semester for all UG Programmes.

21.To approve the following system. for students who have not studied Tamil under Part – I (Languages).

INTERDISCIPLINARYCOURSE (IDC) # FOR WHO HAVE NOT STUDIED TAMIL UNDER PART – I		
Those who have studied Tamil upto10th +2 but opt for other languages in degree	1st Semester	Special Tamil - I
	2nd Semester	Special Tamil - II
Those who have not studied Tamil in school level	1st Semester	Basic Tamil - I
	2nd Semester	Basic Tamil – II

22. **Resolved to have the following Core Courses for B.Sc. Physics Semester wise:**

SEMESTER I

1. Properties of matter and sound (CC1)(It is the newly introduced course)

2. Major Practical-I (Covering CC1) (It is the newly introduced course)

SEMESTER II

1. Mechanics (CC3) (It is the Core Course of previous curriculum but the unit contents are changed)
2. Major Practical-II (Covering CC3) (It is the newly introduced course)

SEMESTER III

1. Heat, Thermodynamics and Statistical Physics. (CC5) (It is newly introduced course)
2. Major Practical-III.(Covering CC5) (It is a course of previous curriculum retained as it is)

SEMESTER IV

1. Electricity, Magnetism and Electromagnetism (CC7) (It is the Core Course of previous curriculum retained as it is)
2. Major Practical –IV (Covering CC7) (It is a course of previous curriculum retained as it is)

SEMESTER V

1. Optics and Spectroscopy (CC9) (It is a course of previous curriculum retained as it is)
2. Atomic and Nuclear Physics (CC10) (It is the newly introduced course)
3. Analog Electronics (CC11) (It is the newly introduced course)
4. Major Practical-V (Covering CC9, CC10 and CC11) (It is the newly introduced Course)

SEMESTER VI

1. Quantum Mechanics and Relativity (CC13) (It is the newly introduced course)
2. Major Practical-VI (Covering CC13) (It is the newly introduced course)
3. Project Work

23. Resolved to have the following Discipline Specific Elective Courses for B.Sc. Physics

SEMESTER V

DSE 1

1. Solid State Physics (It is a course of previous curriculum retained as it is)
2. Materials Science (It is newly introduced course)

SEMESTER VI

DSE 2

1. Digital Electronics and Microprocessor (It is newly introduced course)
2. Opto Electronics (It is newly introduced course)

DSE 3

1. Computer Programming-C language (It is a course of previous curriculum retained as it is)
2. Basic Instrumentation Skill (It is newly introduced course)

23. Resolved to have the following Skill Enhancement Courses for B.Sc. Physics

SEMESTER III

SEC I

1. Fundamentals of Home Appliances (It is a course of previous curriculum retain as it is)
2. Physics of Household Equipments (It is a course of previous curriculum retain as it is)

SEMESTER IV

SEC II

1. Laser and its Application (It is newly introduced course)
2. Communication System (It is newly introduced course)

SEMESTER V

SEC III

1. Nano Science (It is a course of previous curriculum retained as it is)
2. Weather Forecasting (It is newly introduced course)

24. Resolved to introduce Internship for UG in the fifth semester (Carried out in IV Semester Vacation)

25. Resolved to have the following Self learning Course for B.Sc. Physics

SEMESTER IV

SLC I

1. Online course (SWAYAM / SWAYAM PLUS) (It is newly introduced course)
2. Physics for everyday life (It is newly introduced course)

SEMESTER V

SLC II

1. Energy Physics (It is a course of previous curriculum retained as it is)
2. Astrophysics (It is a course of previous curriculum retained as it is)

26. Resolved to have the following Generic Elective Course offer to other Department

SEMESTER I

GEC I

1. Basics of Analog Electronics (It is newly introduced course)

SEMESTER II

GEC II

1. Fundamentals of Digital Electronics (It is newly introduced course)

27. Resolved to have the following Value Added Course for B.Sc. Physics

SEMESTER VI

1. Lab Equipments and Maintenance service (It is newly introduced course)

28. Resolved to have the following Core Courses for M.Sc. Physics

SEMESTER I

1. Mathematical Physics (CC1) (It is newly introduced course)
2. Classical Mechanics and Relativity (CC2) (It is newly introduced course)
3. Major Practical-I (Covering CC1 and CC2) (It is newly introduced course)

SEMESTER II

1. Electro Magnetic Theory (CC4) (It is newly introduced course)
2. Atomic and Molecular Spectroscopy (CC5) (It is newly introduced course)
3. Major Practical-II (Covering CC4 and CC5) (It is newly introduced course)

SEMESTER III

1. Condensed Matter of Physics (CC7) (It is a course of previous curriculum retained as it is)
2. Statistical Mechanics (CC8) (It is newly introduced course)
3. Quantum Mechanics (CC9) (It is newly introduced course)
4. Major Practical-III (Covering CC7, CC8 and CC9) (It is a course of previous curriculum retained as it is)

SEMESTER IV

1. Nuclear and Particle Physics (CC11) (It is a course of previous curriculum retain as it is)
2. Advanced Physics(CC12) (It is newly introduced course)
3. Project Work

29. Resolved to have the following Discipline Specific Elective Courses, Skill Enhancement Courses and Generic Elective Courses for M.Sc. Physics Semester wise

SEMESTER I

DSE 1

1. Analog and Digital Electronics. (It is newly introduced course)
2. Physics of Semiconductor Devices (It is newly introduced course)

DSE 2

1. Numerical Methods in Physics (It is newly introduced course)
2. Numerical Methods and Computational Physics (It is newly introduced course)

SEMESTER II

DSE 3

1. Microprocessor and Microcontroller (It is newly introduced course)
2. Communication Electronics (It is newly introduced course)

30. Resolved to have the following Skill Enhancement Courses for M.Sc. Physics Semester wise

SEMESTER I

SEC I

1. Nanoscience and Nanotechnology. (It is newly introduced course)
2. AI in Physics (It is newly introduced course)

SEMESTER II

SEC II

1. Crystal growth and Thin films (It is a course of previous curriculum retain as it is)
2. Medical Physics (It is newly introduced course)

SEMESTER III

SEC III

1. Entrepreneurship in Physics

31. Resolved to introduce Internship for PG in third Semester (during the II Semester vacation)

32. Resolved to have the following Self learning Course for M.Sc. Physics

SEMESTER II

1. Online course (SWAYAM / SWAYAM PLUS) (It is newly introduced course)

33.Resolved to have the following Generic Elective Course offer to other Department

SEMESTER III

GEC

1. Solar Energy Utilization (It is newly introduced course)

34. Resolved to have the following Value Added Course for M.Sc. Physics

SEMESTER IV

1. Solar power System Installation maintenance and service (It is newly introduced course)

35. Resolved to offer the following Allied Courses for B.Sc. Computer Science / B.Sc. Mathematics / B.Sc. Chemistry Programmes

B.Sc. Computer Science

1. Applied Physics (It is the Course of previous curriculum but the title and unit contents are changed)
2. Applied Physics Practical (It is a course of previous curriculum retained as it is)

B.Sc. Mathematics / Chemistry

1. Allied Physics-I (It is newly introduced course)
2. Allied Physics Practical-I (It is newly introduced course)
3. Allied Physics-II (It is newly introduced course)
4. Allied Physics Practical-II (It is newly introduced course)