

Scott Christian College (Autonomous), Nagercoil

DEPARTMENT OF PHYSICS AND RESEARCH CENTRE

MINUTES OF THE 16TH MEETING OF THE BOARD OF STUDIES OF THE PHYSICS DEPARTMENT HELD ON 24.06.2023.

The 16th Meeting of the Board of Studies (BoS) of the Physics Department was held on 24.06.2023 in the Physics library in which the following members were present:

Sl.No.	NAME	AFFILIATION	ROLE
1.	Prof. A. Charles Hepzy Roy	Associate Professor Department of Physics & Research Centre Scott Christian College (Autonomous), Nagercoil. charleshepzyroy@scottchristian.org +91 9944261881	Chairman
2.	Dr. C. James	Associate Professor Department of Physics & Research Centre Scott Christian College (Autonomous) Nagercoil. james@scottchristian.org +919489500237	Member
3.	Dr. C. Besky Job	Associate Professor Department of Physics & Research Centre Scott Christian College (Autonomous) Nagercoil. beskyjob@scottchristian.org +919487026024	Member
4.	Dr. Y. Premila Rachelin	Assistant Professor Department of Physics & Research Centre Scott Christian College (Autonomous) Nagercoil. premlarachelin@scottchristian.org +919489620591	Member
5.	Dr. J.V. Bynaja	Assistant Professor Department of Physics & Research Centre Scott Christian College (Autonomous) Nagercoil. bynaja@scottchristian.org +919443284135	Member
6.	Dr. V. Anslin Ferby	Assistant Professor Department of Physics & Research Centre Scott Christian College (Autonomous) Nagercoil. anslinferby@scottchristian.org +919443595694	Member

7. **Dr. B.S. Benila** Assistant Professor
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
benila@scottchristian.org +919843626563 **Member**
8. **Dr. Y. Sheeba Sherlin** Assistant Professor
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
sheebasherlin@scottchristian.org
+919442304397 **Member**
9. **Dr. T. R. Beena** Assistant Professor
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
beena@scottchristian.org +919487386199 **Member**
10. **Dr. S. Sharmila Juliet** Assistant Professor
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
sharmilajuliet@scottchristian.org
+919487094860 **Member**
11. **Dr. D.J. Jeeja Mol** Assistant Professor
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
jeejamol@scottchristian.org
+917598629087 **Member**
12. **Dr. H. Adline Mahiba** Assistant Professor
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
adline@scottchristian.org +919408657877 **Member**
13. **Dr. D. Hudson Oliver** Assistant Professor
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
hudsonoliver@scottchristian.org
+919952654515 **Member**
14. **Dr. C. Ravidhas** Faculty Head
PG & Research Department of Physics
Bishop Heber College (Autonomous)
Thiruchirapalli – 620 017
cavidhas@gmail.com +919443(**Subject Expert 1**

- | | | | |
|-----|-----------------------------------|--|--------------------------------------|
| 15. | Dr. I. Hubert Joe | Associate Professor
Department of Physics
University of Kerala
Thiruvananthapuram – 695 034
hubertjoe@gmail.com +919447220563 | Subject Expert 2 |
| 16. | Dr. R. Sheela Christy | Professor and Head
Department of Physics & research Centre,
Nesamony Memorial Christian College,
Marthandam - 629165
sheelachristy64@yahoo.com +91
9442382469 | Vice-Chancellor's
Nominee |
| 17. | Mr. D. Gilbert
Chandra | Group Head,
Instrumentation,
ISRO Propulsion Complex,
Mahendragiri– 627 133
gilbertd26@gmail.com +919442180572 | Industrialist |
| 18. | Dr. V. Shally | Assistant Professor,
Department of Physics & research Centre
Holy Cross College (Autonomous)
Kurusady, Nagercoil – 629 002
shally.v@holycrossngl.edu.in
+917598854466 | Illustrious
Alumnus |

The meeting of the Board of Studies of the Physics Department was held at 10 am on 24.06.2023 in the Physics Library.

In the beginning, the **Chairperson Prof. A. Charles Hepzy Roy** introduced and welcomed the members.

Dr. C. James, Controller of Examination, Dean of IQAC & Associate Professor of Physics recorded his dissent over adopting uniform syllabus by stating that uniform syllabus contemplated by TANSCHÉ is against the liberty of designing curriculum of Autonomous Colleges. He also noted that the idea of uniform syllabus is against UGC regulations 2023 of Autonomous Colleges.

Thereafter, the agendas were taken up for discussion.

Minute No.	Minutes
1	Confirmation of the Minutes of the 15th BoS meeting held on 07.02.2022. Member Secretary Dr. B.S. Benila read the minutes 15 th BoS meeting held on 07.02.2022 and the minutes were confirmed.
2	Action Taken Report on the Minutes of the 15th BoS meeting. The members of BoS carefully perused the “Action Taken Report (ATR)” presented by the Member Secretary Dr. B.S. Benila and expressed their satisfaction and appreciation.




3	<p>Review of Academic and Administrative Audit (AAA) Report 2022-23.</p> <p>The Member-Secretary Dr. B.S. Benila presented the AAA report criteria-wise and the members of BoS carefully reviewed the AAA report and proposed the following suggestions for improvement.</p> <p>a) To conduct minimum two add-on courses b) To encourage smart classroom c) Visiting nearby government schools and make them know basic concepts of Physics</p>																		
4	<p>Review of Feedback Report on curriculum obtained from 1) Students, 2) Teachers, 3) Employers, 4) Alumni.</p> <p>Dr. B.S. Benila presented the Feedback Report obtained from 1) Students, 2) Teachers, 3) Employers, 4) Alumni on the curriculum of B.Sc., M.Sc., and M.Phil. Physics from in the academic year 2022-23.</p> <p>The members of BoS carefully reviewed the Feedback Report received from the stake holders and proposed the following actions to be taken in the curriculum.</p> <p>a) Skill enhancement paper could be electricity related paper with practical related contents like circuit designing, measurement of parameters etc. in the fourth semester. b) To visit industry per semester c) To include a Library hour per week</p>																		
5	<p>Introduction of new courses from the academic year 2023-24.</p> <p>Dr. C. Ravidhas proposed the introduction of the following NEW course(s) in the curriculum of B.Sc. Physics from the academic year 2023-24.</p> <p>1. Core/Elective courses with local/regional/national/global relevance</p> <table border="1" data-bbox="338 1182 1485 1632"> <thead> <tr> <th data-bbox="338 1182 738 1296">Name of the Course</th> <th data-bbox="738 1182 863 1296">Course Code</th> <th data-bbox="863 1182 1485 1296">Relevance to the local, national, regional and global developmental needs.</th> </tr> </thead> <tbody> <tr> <td data-bbox="338 1296 738 1373">Elective : Energy Physics</td> <td data-bbox="738 1296 863 1373"></td> <td data-bbox="863 1296 1485 1373">To know about different forms of energy and the conservation laws, their application</td> </tr> <tr> <td data-bbox="338 1373 738 1485">Elective: Medical Instrumentation</td> <td data-bbox="738 1373 863 1485"></td> <td data-bbox="863 1373 1485 1485">To know about various devices which of medical use and to study their application and instrumentation</td> </tr> <tr> <td data-bbox="338 1485 738 1632">Core VII: Industry Module</td> <td data-bbox="738 1485 863 1632"></td> <td data-bbox="863 1485 1485 1632">Practical related theory could be explained through virtual lab. Industry people could be invited and to give training either in person or by virtual mode.</td> </tr> </tbody> </table> <p>2. Courses for employability/ entrepreneurship/ skill development</p> <table border="1" data-bbox="338 1724 1485 2007"> <thead> <tr> <th data-bbox="338 1724 738 1897">Name of the Course</th> <th data-bbox="738 1724 863 1897">Course Code</th> <th data-bbox="863 1724 1485 1897">Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development</th> </tr> </thead> <tbody> <tr> <td data-bbox="338 1897 738 2007">IOT</td> <td data-bbox="738 1897 863 2007"></td> <td data-bbox="863 1897 1485 2007">For the skill enhancement program, easy portion related IoT (Internet of Things) could be explained practically.</td> </tr> </tbody> </table> <p>3. Value-added courses for imparting transferable and life skills (Min. 30 hours)</p>	Name of the Course	Course Code	Relevance to the local, national, regional and global developmental needs.	Elective : Energy Physics		To know about different forms of energy and the conservation laws, their application	Elective: Medical Instrumentation		To know about various devices which of medical use and to study their application and instrumentation	Core VII: Industry Module		Practical related theory could be explained through virtual lab. Industry people could be invited and to give training either in person or by virtual mode.	Name of the Course	Course Code	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development	IOT		For the skill enhancement program, easy portion related IoT (Internet of Things) could be explained practically.
Name of the Course	Course Code	Relevance to the local, national, regional and global developmental needs.																	
Elective : Energy Physics		To know about different forms of energy and the conservation laws, their application																	
Elective: Medical Instrumentation		To know about various devices which of medical use and to study their application and instrumentation																	
Core VII: Industry Module		Practical related theory could be explained through virtual lab. Industry people could be invited and to give training either in person or by virtual mode.																	
Name of the Course	Course Code	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development																	
IOT		For the skill enhancement program, easy portion related IoT (Internet of Things) could be explained practically.																	




Name of the Course	Course Code	Transferable and life skill development
Add-on Course on Reasoning and Aptitude		To appear for the competitive examinations and to clear it

Dr. C. Ravidhas proposed the introduction of the following NEW course(s) in the curriculum of M.Sc. Physics from the academic year 2023-24.

1. Core/Elective courses with local/regional/national/global relevance

Name of the Course	Course Code	Relevance to the local, national, regional and global developmental needs.
i. Elective I -Materials Science		To know about the wide range of materials and their properties to be used for applications
ii. Generic Elective II Advanced Optics		To get clear knowledge of Optical theory and the applications of optical devices
iii. Elective III- Bio Physics		To study a wide array of topics ranging from how nerve cells communicate and how plant cells capture light and transform it into energy.
iv. Elective IV- Microprocessor 8086 & Microcontroller 8051 / Advanced Spectroscopy		To become familiar with the basic ideas of certain measurements, sensors and some microcontroller prototypes
v. NME I – Characterization of Materials		To study various characterization of materials and their uses
vi. Elective V – Digital Communication		To study about modulation, Analog to Digital communication, Audio Processing, Optical communication and how these theory is used in applications.

2. Courses for employability/ entrepreneurship/ skill development

Name of the Course	Course Code	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development
NME II – Molecular Modeling (Practical Oriented)		Skill Development (Students are expected to have hands on experience in modeling , implementation and fetch a thorough knowledge in Atomic and Molecular Physics)
Elective VI- IoT		Entrepreneurship (Students will enhance their technical/ computer competency through the use of internet)
SEC- Medical Physics		Employability (To provide a broad knowledge on

the interaction of Non-Ionizing radiation and ultrasound in tissues and their use in medicine.

3. Value-added courses for imparting transferable and life skills (Min. 30 hours)

Name of the Course	Course Code	Activities/Content with direct bearing on Employability/ Entrepreneurship/ Skill development
Simple House Hold Wiring		Skill development (Students will develop the skill on various types of electrical wiring and other home appliance)

Dr. C. James proposed the introduction of the following NEW PRACTICAL course(s) in the curriculum of M.Sc. Physics from the academic year 2023-24.

1. Core/Elective courses with local/regional/national/global relevance

Name of the Course	Course Code	Relevance to the local, national, regional and global developmental needs.
Practical III Micro controller related Programmes		To be able to write Micro controller related Programmes and execution. Hence to solve mathematical problems.
Practical IV MATLAB & Python Numerical Methods Problems		To develop programming skills, and technique to solve mathematical problems using MATLAB as a simulation tool and able to work as a MATLAB programmer.

Resolved to introduce the above NEW course(s) in the curriculum of B.Sc. and M.Sc. Physics from the academic year 2023-24. Also resolved to approve the proposed syllabuses for these new courses which are given in Section – I

6

Revision of syllabuses of existing courses from the academic year 2023-24.

Dr. R. Sheela Christy proposed the revision of syllabuses of the following course(s) in the curriculum of B.Sc. Physics from the academic year 2023-24.

- For I semester the hours allotted for core and practical are 4 and 4. Number of practical should be at least 8.
- To split the 3 hours allotted for allied Chemistry as two continuous hours + one hour and the 2 continuous hours can be taken as practical or theory.

Dr. I. Hubert Joe proposed the revision of syllabuses of the following course(s) in the curriculum of M.Sc. Physics from the academic year 2023-24.

- The hours allotted for the practical I is 3 and for practical II, III and IV is 4 and they are taken from the theory hours without changing the credits.

Resolved to revise the syllabuses of the above course(s) in the curriculum of B.Sc.

	and M.Sc. Physics from the academic year 2023-24. Also resolved to approve the modified syllabuses for these courses which are given in Section – II		
7.	Introduction of field projects/ internships/student projects from the academic year 2023-24		
	Name of the Programme	Semester	Field project/ internship / student project
	Internship	V	Sending them to various research lab and make them to submit proposal as one of the options for internship program
			Duration
			30 days
	Dr. I. Hubert Joe introduced the following projects/ internships / student projects in the curriculum of M.Sc. Physics from the academic year 2023-24.		
	Name of the Programme	Semester	Field project/ internship / student project
	Lab to Land program	VI	Adopting a village for the extension activity.
			Duration
			-
	Resolved to introduce the above field projects/internships/student projects in the curriculum of B.Sc. and M.Sc. Physics from the academic year 2023-24. Also resolved to approve the method of grading the students undertaking field projects/internships/student projects, which are given in Section – III.		

Industrialist, **Dr. Gilbert Chandra** and one of the Subject Experts, **Dr. I. Hubert Joe** were attended the 16th BoS meeting through online.

Online BoS Link:

<https://meet.google.com/hsk-nbyv-rdm>



PRINCIPAL



HOD

BOARD OF STUDIES MEMBERS IN PHYSICS
DEPARTMENT OF PHYSICS & RESEARCH CENTRE
SCOTT CHRISTIAN COLLEGE (Autonomous) NAGERCOIL-629 003

Members who contributed in framing the Curriculum and Syllabi, recommended to the Academic Council.

Prof. A. Charles Hepzy Roy

Faculty Head i/c
Department of Physics & Research Centre
Scott Christian College (Autonomous),
Nagercoil.
charleshepzyroy@scottchristian.org +91 9944261881

- Chairman

Dr. R. Sheela Christy

Professor and Head
Department of Physics & research Centre,
Nesamony Memorial Christian College,
Marthandam - 629165
sheelachristy64@yahoo.com +91 9442382469

- Vice-Chancellor's Nominee

Dr. C. Ravidhas

Faculty Head PG & Research Department of Physics
Bishop Heber College (Autonomous)
Thiruchirapalli – 620 017
craavidhas@gmail.com +919443076209

- Subject Expert

Dr. I. Hubert Joe

Associate Professor
Department of Physics
University of Kerala
Thiruvananthapuram – 695 034
hubertjoe@gmail.com +919447220563

- Subject Expert

Dr. V. Shally

Assistant Professor,
Department of Physics & research Centre
Holy Cross College (Autonomous)
Kurusady, Nagercoil – 629 002
shally.v@holycrossncl.edu.in +917598854466

- Illustrious Alumnus

Mr. D. Gilbert Chandra

Group Head,
Instrumentation,
ISRO Propulsion Complex,
Mahendragiri– 627 133
gilbertd26@gmail.com +919442180572

- Industrialist

Dr. C. James

Associate Professor in Physics
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
james@scottchristian.org +919489500237

- Member

J
24/6/23

Dr. C. Besky Job

Associate Professor in Physics
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
beskyjob@scottchristian.org +919487026024

- Member

e. Besky Job
24/6/23

Dr. Y. Premila Rachelin

Assistant Professor in Physics
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
premlirachelin@scottchristian.org +919489620591

- Member

Y. Premila Rachelin
24/6/23

Dr. J.V. Bynaja

Assistant Professor in Physics
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
bynaja@scottchristian.org +919443284135

- Member

J.V. Bynaja
24/6/23

Dr. V. Anslin Ferby

Assistant Professor in Physics
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
anslinferby@scottchristian.org +919443595694

- Member

V. Anslin Ferby
24/6/23

Dr. B.S. Benila

Assistant Professor in Physics
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
benila@scottchristian.org +919843626563

- Member

B.S. Benila
24/6/2023.

Dr. Y. Sheeba Sherlin

Assistant Professor in Physics
Department of Physics & Research Centre
Scott Christian College (Autonomous)
Nagercoil.
sheebasherlin@scottchristian.org +919442304397

- Member

Y. Sheeba Sherlin
24/6/23

PRINCIPAL

HOD