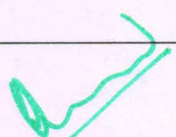


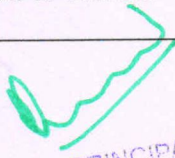
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DEPARTMENT OF PHYSICS

Member of Board of Studies Physics (UG & PG)
Academic year 2020-2021

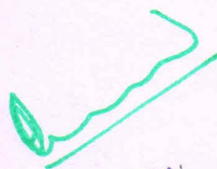
S.No.	Name & Official Address	Remarks
1.	Dr. K. Thamilmaran Professor Centre for Nonlinear Dynamics School of Physics, Bharathidasan University Tiruchirappalli - 620 024	Nominated by Vice-chancellor
2.	Dr. E. K. Girija Assistant Professor Department of Physics, Periyar University Salem 636 011	Nominated by Academic council
3.	Dr. K.B. Rajesh Assistant Professor Department of Physics Chikkanna Government Arts College, Tiruppur 641602	Nominated by Academic council
4.	Dr. G. Suresh Kumar Assistant Professor and Head (PG) Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	BOS Chairman
5.	Dr. M. Venkatesh Assistant Professor and Head (UG) Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	Member (internal)
6.	Ms. A. Mohanapriya Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	Member (internal)
7.	Ms. V. Poornima Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	Member (internal)
8.	Ms. R.L. Menaka Assistant Professor Department of Physics (UG) K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	Member (internal)


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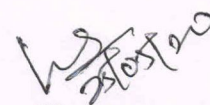
9.	Ms. R. FathimaBeebei Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	Member (internal)
10.	Mrs. S. Udhayalakshmi Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	Member (internal)
11.	Ms. E. Indhulekha Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	Member (internal)
12.	Ms. V.T. JeiElaya Ganga Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	Member (internal)
13.	Ms. M. Paruvatham Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	Member (internal)
14.	Dr. K.M. Prabhusankarlal Assistant Professor & Head Department of Electronics & Communication K.S.Rangasamy College of Arts & Science Tiruchengode – 637 215	Co-opted Member
15.	Mr. T. Rajendrakumar Assistant Professor & Head (UG) Department of Mathamatics K.S.Rangasamy College of Arts & Science Tiruchengode – 637 215	Co-opted Member
16.	Dr. A. Kathirvel Assistant Professor & Head Department of Chemistry K.S.Rangasamy College of Arts & Science Tiruchengode – 637 215	Co-opted Member
17.	Mr. M. Prakasam Assistant Professor & Head (PG) Department of Computer Science K.S.Rangasamy College of Arts & Science Tiruchengode – 637 215	Co-opted Member
18.	Mr. J. Tamilselvan Assistant Professor & Head (UG) Department of Computer Science K.S.Rangasamy College of Arts & Science Tiruchengode – 637 215	Co-opted Member


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19.	Dr. G. Saravanan Assistant Professor & Head Department of Biochemistry K.S.Rangasamy College of Arts & Science Tiruchengode – 637 215	Co-opted Member
20.	Mr. T. Periyasamy Team Leader-Photogrammetry Intrasaptial Softech PVT LTD, Banglore	Representing Industry
21.	Mr. S. Surendhiran Research Scholar Centre for Nanoscience and Technology K.S. Rangasamy College of Technology Tiruchengode 637 215	Alumni



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Chairman
BoS – Physics

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The board of studies for B.Sc., Physics is held on 26.05.2020 through online mode (Google meet) as a result of the large disruption that is being caused by the COVID-19 pandemic. The agenda of the meeting includes the syllabus revision for UG third year Physics, to update and approve the syllabus for the students admitted from 2018-2019 onwards.

The syllabus for the students admitted from 2018-2019 has been thoroughly discussed and resolved that programme structure for third year B.Sc., Physics is approved with few suggestions. The suggestions given by members are given in Annexure-I

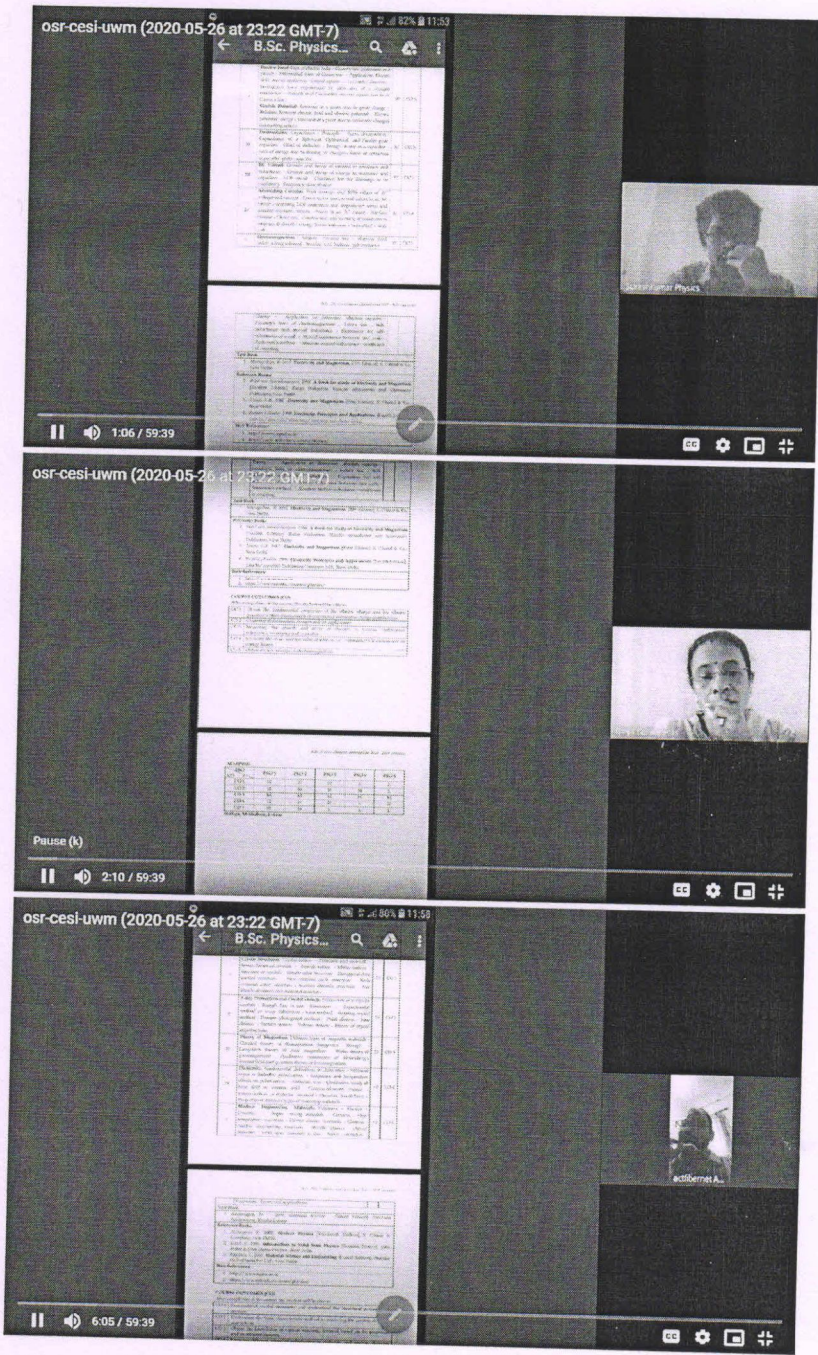
List of Members


S.No.	Name & Official Address	
1	Dr. E. K. Girija Assistant Professor Department of Physics, Periyar University Salem 636 011	Ms. R. Fathima Beebei Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215
2	Dr. K.B. Rajesh Assistant Professor Department of Physics Chikkanna Government Arts College, Tiruppur 641602	Mrs. S. Udhayalakshmi Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215
3	Dr. K. Thamilaran Professor Centre for Nonlinear Dynamics School of Physics, Bharathidasan University Tiruchirappalli - 620 024	Ms. E. Indhulekha Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215
4	Dr. G. Suresh Kumar Assistant Professor and Head (PG) Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	Ms. V.T. Jei Elaya Ganga Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215
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	Ms. A. Mohanapriya Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215	Mr. S. Surendhiran Research Scholar Centre for Nanoscience and Technology K.S. Rangasamy College of Technology Tiruchengode – 637b215

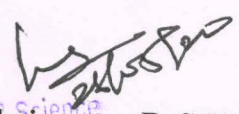
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<p>Ms. V. Poornima Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215</p>	<p>Ms. R. Rami Assistant Professor Department of Physics K.S.Rangasamy College of Arts and Science (Autonomous), Tiruchengode – 637215</p>
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Snapshots of during the BOS meeting through Google Meet




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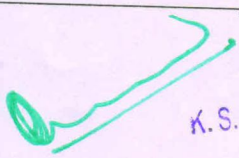

Chairman – BoS Physics

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Annexure - I

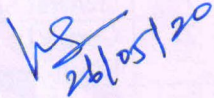
The following are the corrections and suggestions given by the board of studies members for new B.Sc., Physics syllabus, which will be effective from the academic year 2020-2021.

S.No	Subject	Remarks
1.	General Suggestion	
2.	Core VII: Electricity and Electromagnetism	PG level reference book should be included
3.	Core VIII: Solid State Physics	<ul style="list-style-type: none"> • In the unit III theory of magnetism just discusses the B_H curves and energy losses. • In unit IV, the electron theory and Hall effects for solid state materials is included • Unit IV is moved to Unit V and the exciting content removed from the unit. • New text book is included.
4.	Core IX: Mathematical Physics	<ul style="list-style-type: none"> • 100% internal evaluation is changed to for the regular valuation pattern like 75 marks for external and 25 mark for internal. • Unit – V changed full for complex analysis.
5.	Core X: Electronics And Communication	<ul style="list-style-type: none"> • In unit V, the new content was added for recent communication technology like 5G, free space optical communication and modern technology method.
6.	Elective I : Energy Physics	<ul style="list-style-type: none"> • In unit II, solar pond topic needs to be added. • In unit V In the topic of energy storage system, super capacitors topic can be included.
7.	Elective I : Geophysics	All content are good.
8.	Core Practical V: Practical Physics – V	New basic measurement experiment is included.
9.	SBC III: Spectrophysics	Teaching method should be effective enough for the students to understand the purpose of spectroscopy.
10.	Core XI: Quantum Mechanics and Relativity	In the unit III remove the topics of Rigid rotator and Hydrogen atom.
11.	Core XII: Nuclear Physics	Method of teaching should be effective, all content are good.
12.	Core XIII: Digital Electronics And Microprocessor	All content are good.
13.	Elective II : Nanoscience	<ul style="list-style-type: none"> • Title of the paper have change from Nanoscience to Physics of Nanoscale • In Unit I size and dimensionality effect should be included. • All units updated the content for application based various filed. • Biomedical imaging technique is introduced in Unit V.


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14.	Elective II : Biomedical Instrumentation	In the unit III added the topic of biomedical imaging technique.
15.	Core Practical VI: Practical Physics - VI	No suggestion, all content are good.
16.	SBC IV: Materials and Processing	In the unit V added the topic of applications of laser and plasma surface treatment
17.	Advance Learners Course Ii: Spintronics	The portion needs to be shortened.


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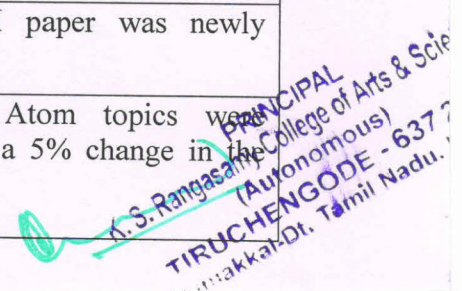

26/05/20
Dr. G. Suresh Kumar
Chairman- BOS Physics

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DEPARTMENT OF PHYSICS

BOS Meeting & Syllabus Revision Summary (B.Sc., Physics)

Based on the suggestions given by BOS members (Annexure I), COE and minutes of the Department syllabus revision meeting (I, II & III), the following major changes has been made for the B.Sc., Physics syllabus (Semester V&VI) which will be effective for the students admitted from the academic year 2018-2019 onwards..

S.No	Subject	Remarks
1.	Core VII: Electricity and Electromagnetism	Based on the BOS member suggestion the textbook was included and the topics were rearranged in Unit – II. There is a 5% change in the syllabus.
2.	Core VIII: Solid State Physics	Few topics included in unit - III are the B_H curve and energy losses. Unit – IV is moved to Unit – V and exciting content removed from Unit – V. In Unit – IV, the electron theory and Hall effects for metals for solid-state materials are included. The new textbook was included based on the content. There is 25% of content was introduced in this syllabus when compared to the previous syllabus.
3.	Core IX: Mathematical Physics (Fifth Unit Self-Study)	100% internal evaluation is changed to the regular valuation pattern like 75 marks for external and the remaining 25 marks for internal. In Unit - V topics were completely removed and introduced the Complex Analysis relevant topics. 20% of the syllabus was revised to increase the weightage of this paper.
4.	Core X: Electronics and Communication	Few topics were revised and included the new topics are 5G, free-space optical communication and modern technology methods in Unit – V. There is a 20% syllabus change in this subject.
5.	Elective I: Energy Physics	Few topics were introduced in Unit – II and Unit – V is a solar pond, energy storage system, and supercapacitors. There is a 5% change in the syllabus.
6.	Elective I: Geophysics	This paper is newly introduced in Semester – V. There is a 100% change in the syllabus.
7.	Core Practical V: Practical Physics – V	In core practical V, the new basic measurement experiment was included and the existing one B.G experiment was removed. There is a 10% change in the syllabus of this subject.
8.	SBC III: Spectrophysics	The spectrophysics paper, all content good. So, there is no change in this paper.
9.	Career Competency Skills III	Career Competency Skill – III paper was newly introduced in Semester – V.
10.	Core XI: Quantum Mechanics and Relativity	Rigid Rotator and Hydrogen Atom topics removed in Unit – III. There is a 5% change in the syllabus.



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11.	Core XII: Nuclear Physics	All contents of the paper are good. So no changes.
12.	Core XIII: Digital Electronics and Microprocessor	All contents of the paper are good. So no changes.
13.	Elective II: Physics of Nanoscale	The title of the paper is changed Nanoscience to Physics of Nanoscale. All five-unit contents were newly introduced. Also, the dimensionality effect topic is introduced in Unit I. 100% changes of syllabus.
14.	Elective II: Biomedical Instrumentation	The biomedical imaging instrumentation technique topic was introduced in Unit III. There is a 5% change in the syllabus.
15.	Core Practical VI: Practical Physics -VI	Two new experiments were introduced and already existing four experiments were merged into two experiments. There is 50% of the syllabus content was updated.
16.	SBC IV: Materials and Processing	The application of laser and plasma surface treatment topics are newly added in Unit – V. There is less than 5% of updation with the previous syllabus.
17.	Career Competency Skills IV	The syllabus was fully introduced to enhance employability skills and to develop career competency in the sixth semester. 100% new in the syllabus.

Highlights

Total number of courses offered in Semester I-VI; 43 courses; 1 Extension Activity and 1 Project

Percentage of syllabus revision was carried out in semester I-VI 26 %

Percentage of course content having relevance to the local, regional, national and global needs for the whole program 45%

Core II: Thermal Physics (18UPHM102)

- Optics (18UPHM202)
- Atomic Physics (18UPHM301)
- Instrumentation (18UPHSB301)
- Basic Electronics (18UPHM401)
- Laser Physics (18UPHSB401)
- Electricity and electromagnetism (18UPHM501)
- Solid State Physics (18UPHM502)
- Electronics and Communication (18UPHM504)
- Energy Physics (18UPHEL501)
- Nuclear Physics (18UPHM602)
- Physics of Nanoscale (18UPHEL601)
- Biomedical Instrumentation (18UPHEL602)
- Materials and processing (18UPHSB601)

Average percentage of courses having the focus on employability/ entrepreneurship/ skill development in semester I-VI 29 %

Employability

- Basic Electronics(18UPHM401)
- Electronics and Communication (18UPHM504)

Entrepreneurship


- Optics(18UPHM201)
- Electricity and Electromagnetism (18UPHM501)


Skill development

- SBC I: Instrumentation(18UPHSB301)

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<ul style="list-style-type: none"> • SBC II: Laser Physics (18UPHSB401) • SBC III: Spectrophysics (18UPHSB501) • SBC IV: Materials and Processing (18UPHSB601) 	
Percentage of new courses introduced of the total number of courses in semester I-VI	16%
<ul style="list-style-type: none"> • Fundamentals of Astrophysics (18UPHAC301) • Astronomical Techniques (18UPHAC401) • Geophysics (18UPHEL502) • Career Competency Skills III (18ULS501) • Career Competency Skills IV (18ULS601) 	
Percentage of Elective courses offered in Semester I-VI	12%
<ul style="list-style-type: none"> • Energy Physics (18UPHEL501) • Geophysics (18UPHEL502) • Nanoscience (18UPHEL601) • Biomedical Instrumentation (18UPHEL602) 	
Details of courses having crosscutting issues relevant to professional ethics, gender, human values, environment and sustainability	10%
<ul style="list-style-type: none"> • Elective I: Energy Physics (18UPHEL501) • Elective I: Geophysics (18UPHEL502) • Core XII: Nuclear Physics (18UPHM602) 	
Number of value added courses offered by your department	1
<ul style="list-style-type: none"> • Electrical Appliances: Maintenance and Servicing 	


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