

**VIGNAN'S**

Foundation for Science, Technology &amp; Research

(Deemed to be University)

ESTD. 1984, AFF. 1992, ACT. 1994

**DEPARTMENT OF PHYSICS****CIRCULAR**

Date: 10.12.2024

The Department of Physics will be conducting the Board of Studies (BoS) meeting for the courses of B.Tech. program on **21.12.2024** from 09.00 AM in VBTQ7, A-block VFSTR in offline mode. All members are requested to make it convenient to attend the meeting.

**The members are:**

| SL. No | Name of the member         | Designation and Address   | Role                             |
|--------|----------------------------|---|----------------------------------|
| 1      | Dr. K. V Madhuri           | Professor and Head of the Department  | Chair person                     |
| 2      | Prof. G. Hema Chandra      | Professor, Department of Physics, VNIT Nagpur,  | External member (Academia)       |
| 3      | Dr. Y. Bharath Kumar Reddy | Director (Techno Commercial) ABC Cleantech. Pvt.Ltd                                       | External member (Industry)       |
| 4      | Dr. Neeraj Dwivedi         | Principal Scientist, CSIR-Advanced Materials and Processes Research Institute(CSIR-AMPRI) | Invited member (Research)        |
| 5      | Dr. Saket Asthana          | Professor, Department of Physics, IIT Hyderabad.  | Invited member                   |
| 6      | Prof. J. N. Kiran          | Professor, Dept. of Physics, VFSTR.   | Internal member                  |
| 7      | Prof. M. Sreenivasulu      | Professor, Dept. of Physics, VFSTR.   | Internal member                  |
| 8      | Dr. M L N Madhu Mohan      | Associate Professor, Dept. of Physics, VFSTR.   | Internal member (R&D nominee)    |
| 9      | Dr. Ch. Tirupataiah        | Associate Professor, Dept. of Physics, VFSTR.   | Internal member                  |
| 10     | Dr. Shaik Habibuddin       | Associate Professor, Dept. of Physics, VFSTR.   | Internal member                  |
| 11     | Dr. Ashutosh Upadhyay      | Assistant Professor, Dept. of Physics, VFSTR  | Internal member (School nominee) |
| 12     | Dr. B. Nageswara Rao       | Assistant Professor, Dept. of Physics, VFSTR.   | Internal member                  |
| 13     | Dr. P. Srinivasarao        | Assistant Professor, Dept. of Physics, VFSTR.   | Internal member                  |
| 14     | Dr. M. Ramanjaneyulu       | Associate Professor, (BoA) Dept. of Physics, VFSTR.                                       | Member Secretary                 |

**Agenda of the BoS Meeting:**

1. To solicit feedback on the present syllabus (R22, C24) from BoS members.
2. To discuss the branch specific Physics courses for the 1st B. Tech students for the academic year 2025-26.
3. To deliberate open elective syllabus to be offered for 2<sup>nd</sup> and 3<sup>rd</sup> year students.



**Chairperson**

(Dr. K V Madhuri)

**Prof. K.V. M**

Head

Department of Phy

School of Applied Sciences & Hu

Vignan's Foundation for Science, Technology and

(Deemed to be University)

Vadlamudi, Guntur-522213



## DEPARTMENT OF PHYSICS

Date: 21.12.2024

### Minutes of Board of Studies Meeting

Department of Physics has conducted the Board of Studies (BoS) meeting for the B.Tech. program on 21.12.2024 at VBT-07, A-block from 09.00 AM to 04.00 PM under the Chairmanship of the Head, Department of Physics along with the committee and external members with external invitees in offline mode.

#### **Agenda of the BoS Meeting:**

1. To solicit feedback on the present syllabus (R22, C24) from BoS members.
2. To discuss the branch specific Physics courses for the 1st B. Tech students for the academic year 2025-26.
3. To deliberate open elective syllabus to be offered for 2<sup>nd</sup> and 3<sup>rd</sup> year students.
4. Any other points with the permission of the Chairperson.

Chairperson, **Dr. K. V. Madhuri**, Professor and Head, Department of Physics, VFSTR opened the meeting by welcoming and introducing the external members, invitees to the internal members. The chairperson presented about the *NEP 2020 Compliant Regulation - R22* which emphasis on creating *learning centric* (continuous learning and continuous assessment model).

#### **The following points were discussed in the BoS meeting:**

1. Existing syllabus and LTP structure for Regulation R22, C24.
2. Introducing the branch specific courses for 1st year B. Tech students.
3. Open electives for 2nd year and 3rd year B. Tech students.

#### **The following resolutions are made after the discussions:**

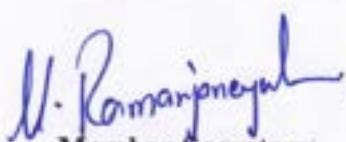
1. BoS members felt that, introducing Quantum mechanics as a first unit would make students difficult to understand and it needs to be moved to the last part of the syllabus as fourth unit.

2. BoS members approved to float, four different courses for the 1st B. Tech students and the detailed syllabus and LTP structure are provided in Appendix-I.
3. Three open electives will be offered to 2nd and 3rd year B. Tech students. List of approved open electives are provided in Appendix-I
4. Suggestions and updates from the expert members were noted and incorporated in the syllabi of branch specific courses and also in open electives.
5. The curriculum is encompassing the courses that enable employability or entrepreneurship or skill development, provided in Appendix- II.
6. The significant changes are made in the content of all courses for group of allied branches and hence the courses are considered as new courses provided in Appendix- III.
7. Total average percentage of syllabus revision/modification was about 5% compared to previous curriculum of R24, C24.

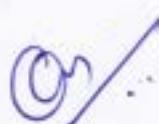
Based on the feedback from various stakeholders and suggestions given by the members, the Chairperson of BoS assured the above fruitful suggestions would be incorporated appropriately in the syllabi of regulation R22, C25 and it will be recommended to the Academic Council of VFSTR for the approval.

There being no further points for discussion, the Chairperson thanks all the external, internal, invited members and announced that the meeting was adjourned.

Note: Dr. Malakondaiah, Executive Council member, VFSTRU also attended the meeting in the afternoon session and shared his experiences.

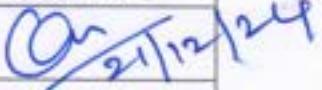
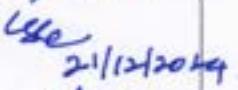
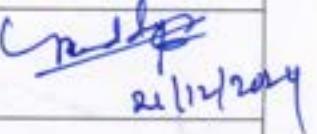
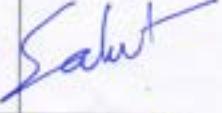
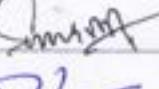
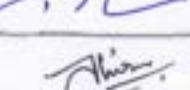
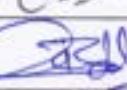
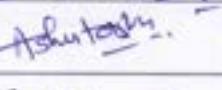
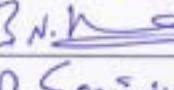
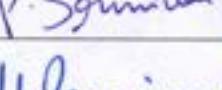
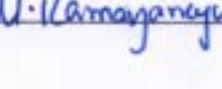


Member Secretary  
(Dr. M Ramanjaneyulu)



Chairperson  
(Dr. K V Madhuri)  
**Prof. K.V. Madhuri**  
Head  
Department of Physics  
School of Applied Sciences & Humanities  
Vignan's Foundation for Science, Technology and Research  
(Deemed to be University)  
Vadlamudi, Guntur-522213

The following members were present for the BoS (Physics) meeting held on 21-12-2024

| Sl. No | Name of the member         | Designation and Address  | Signature   |
|--------|----------------------------|--|---|
| 1      | Dr. K. V Madhuri           | Chairman & Professor and Head of the Department  |    |
| 2      | Prof. G. Hema Chandra      | External Expert & Professor, Department of Physics, VNIT Nagpur  |    |
| 3      | Dr. Y. Bharath Kumar Reddy | External Expert & Director (Techno Commercial)<br>ABC Cleantech. Pvt.Ltd                                     |    |
| 4      | Dr. Neeraj Dwivedi         | External Expert & Principal Scientist, CSIR-Advanced Materials and Processes Research Institute (CSIR-AMPRI) |   |
| 5      | Dr. Saket Asthana          | External Expert & Professor, Department of Physics, IIT Hyderabad, Kandi, Sangareddy, Telangana              |    |
| 6      | Prof. J. N. Kiran          | Member, Professor, Dept. of Physics, VFSTR.  |   |
| 7      | Prof. M. Sreenivasulu      | Member, Professor, Dept. of Physics, VFSTR.  |  |
| 8      | Dr. M L N Madhu Mohan      | Dean, R & D Nominee, Associate Professor, Dept. of Physics, VFSTR.   |  |
| 9      | Dr. Ch. Tirupataiah        | Member, Associate Professor, Dept. of Physics, VFSTR.  |  |
| 10     | Dr. Shaik Habibuddin       | Member, Associate Professor, Dept. of Physics, VFSTR.  |  |
| 11     | Dr. Ashutosh Upadhyay      | Member, Assistant Professor, Dept. of Physics, VFSTR.  |  |
| 12     | Dr. B. Nageswara Rao       | Member, Assistant Professor, Dept. of Physics, VFSTR.  |  |
| 13     | Dr. P. Srinivasarao        | Member, Assistant Professor, Dept. of Physics, VFSTR.  |  |
| 14     | Dr. M. Ramanjaneyulu       | Associate Professor, (BoA)<br>Dept. of Physics, VFSTR.   |  |



## DEPARTMENT OF PHYSICS

### APPENDIX I

#### B. Tech Programme: Revised Curriculum Structure for the academic year 2025-26 I year I Semester (Semester 1 and/or 2)

| Sl. No. | Course Title                        | L  | T | P | C  | Course Category | Offered to  |
|---------|-------------------------------------|----|---|---|----|-----------------|---|
| 1.      | Engineering Physics                 | 3  | 0 | 2 | 4  | Science         | CS&BS, CSE(CS), CSE(DS), CSE(AI&ML), CSE(IOT), IT |
| 2.      | Physics for Electronic Engineers    | 3  | 0 | 2 | 4  | Science         | ECE, EEE  |
| 3.      | Applied Physics                     | 3  | 0 | 2 | 4  | Science         | BT, BI, FT, BM                                    |
| 4.      | Fundamentals of Engineering Physics | 3  | 0 | 2 | 4  | Science         | MECH, CIVIL, CHEM, TT                             |
| Total   |                                     | 12 | 0 | 8 | 16 |                 |   |

L=Lecture; T= Tutorial; P= Practical; C=Credits

#### List of Open Elective Courses for 2<sup>nd</sup> and 3<sup>rd</sup> year B. Tech students

| S.No. | Title                               |
|-------|-------------------------------------|
| 1.    | Thin film technology                |
| 2.    | Analytical techniques for Engineers |
| 3.    | Sustainable energy technologies     |

Chairperson

(Dr. K V Madhuri)

**Prof. K.V. Madhuri**

Head

Department of Physics

Vignan's Foundation for Science, Technology and Research

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## DEPARTMENT OF PHYSICS

### APPENDIX II

#### List of Courses that Enables Employability or Entrepreneurship or Skill Development

| S. No. | Year and Semester    | Course Title                        | Employability / Entrepreneurship / Skill development |
|--------|----------------------|-------------------------------------|--|
| 1.     | 1 Year I/II Semester | Engineering Physics                 | Skill development                                    |
| 2.     | 1 Year I/II Semester | Physics for Electronic Engineers    | Skill development                                    |
| 3.     | 1 Year I/II Semester | Applied Physics                     | Skill development                                    |
| 4.     | 1 Year I/II Semester | Fundamentals of Engineering Physics | Skill development                                    |
| 5.     | 2 Year I/II Semester | Thin film technology                | Employability  |
| 6.     | 2 Year I/II Semester | Analytical techniques for Engineers | Employability  |
| 7.     | 3 Year I/II Semester | Sustainable energy technologies     | Employability  |

**Chairperson**

(Dr. K V Madhuri)

**Prof. K.V. Madhuri**  
 Head

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A/C No. 8, 8th Main, 2nd Block, Marathahalli

**DEPARTMENT OF PHYSICS****APPENDIX- III****List of New Courses in the R22 Curriculum**

| S. No. | Year and Semester    | Course Title                        | Employability / Entrepreneurship / Skill development |
|--------|----------------------|-------------------------------------|--|
| 1.     | 1 Year I/II Semester | Physics for Electronic Engineers    | Skill development                                    |
| 2.     | 1 Year I/II Semester | Applied Physics                     | Skill development                                    |
| 3.     | 1 Year I/II Semester | Fundamentals of Engineering Physics | Skill development                                    |
| 4.     | 2 Year I/II Semester | Thin film technology                | Employability  |
| 5.     | 2 Year I/II Semester | Analytical techniques for Engineers | Employability  |
| 6.     | 3 Year I/II Semester | Sustainable energy technologies     | Employability  |

**Chairperson**  
(Dr. K V Madhuri)**Prof. K.V. Madhuri**  
**Head**

Department of Physics  
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## DEPARTMENT OF PHYSICS

### APPENDIX IV

#### Comparison of Course Contents between R22 and R22, C24 Curriculums

(Should be maintained by BoS member for future reference)

| S. No.               | Year and Semester    | Course Title        | % of Changes |
|----------------------|----------------------|---------------------|--------------|
| 1.                   | 1 Year I/II Semester | Engineering Physics | 5%           |
| Average % of Changes |                      |                     | 5.0%         |



Chairperson

(Dr. K V Madhuri)

**Prof. K.V. Madhuri**  
Head

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## DEPARTMENT OF PHYSICS

### APPENDIX

#### Action Taken Report (ATR) on the suggestions given in earlier BoS meetings

| S.No. | Action Point                    | Response   |
|-------|---------------------------------|--|
| 1.    | Difficulty of Quantum mechanics | Our faculty added more real time examples to understand quantum mechanics and the need of quantum mechanics where exactly classical mechanics fails. |
| 2.    | Lab practices                   | During the lab practices, the demonstration of experiment and connecting them directly with theriacal part of course.                                |

Member Secretary

Chairperson

Prof. K.V. Madhuri  
Head

Department of Physics  
Applied Sciences & Humanities  
Institute for Science, Technology and Research  
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Note: If there are no suggestions in the earlier BoS meetings, mention the same and submit the report.

~~Method~~ ~~Method~~ ~~Method~~

Method 1 (Method 1)  
Method 2 (Method 2)  
Method 3 (Method 3)

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