



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

DEPARTMENT OF PHYSICS
Minutes of Meeting –BoS–21st March 2022

MINUTES OF THE 4th ONLINE MEETING

BOARD OF STUDIES OF PHYSICS

DATE: 21st March, 2022, Monday

Time: 2.00 PM – 4.00 PM

PLATFORM: MICROSOFT TEAMS

Meeting Link: <https://teams.microsoft.com/l/meetup-join/19%3adb1679ecc3434e0c88af1ece7ead8d63%40thread.tacv2/1647600500183?context=%7b%22Tid%22%3a%222666d919-f1fc-4027-b9c5-212d4e95e68a%22%2c%22Oid%22%3a%2244c1c7ad-8b48-4858-bf8e-a9b3832ae5a9%22%7d>

IN ATTENDANCE:

S.No	Name of the Expert	Designation	Capacity
1	Dr.A.Bhaskaran	Professor and Head, Department of Applied Physics, Head - Campus Safety and Security, Sri Venkateswara College of Engineering, Sriperumbudur - 602117	Overall Coordinator of First-year Board
2	Dr.M.Mahendran	Professor and Head, Department of Physics Thiagarajar College of Engineering, Madurai Email: manickam-mahendran@tce.edu Phone: 04522482240	Anna University Nominee
3	Dr.K.Jayakumar	Former Professor, Department of Physics, Gandhigram Rural Institute (Deemed to be University), Gandhigram, Dindigul Kjkumar_gri@rediffmail.com Phone: 04512452371	Academic Council nominated BoS Member



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FACULTY OF PHYSICS	MEMBERS
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S.No	Name of the Faculty	Designation
1	Dr. M. Shanthi	Chairman / HoD-Physics <i>Dr. Shanthi</i>
2	Dr. A. Yelilarasi	Associate Professor / Physics <i>A. Yelilarasi</i>
3	Dr. M. Hema	Associate Professor / Physics <i>Dr. Hema</i>
4	Dr. K. Sakthiraj	Assistant Professor / Physics <i>Sakthiraj</i>
5	Dr. G. Bharathy	Assistant Professor / Physics <i>Bharathy</i>
6	Dr. K. M. Manikandan	Assistant Professor / Physics <i>Manikandan</i>

THE MINUTES:

The meeting is called for considering the Undergraduate second semester theory syllabus and to introduce new Skill development courses offered by Physics department.

DISCUSSIONS:

THE MINUTES:

The meeting is called for considering the Undergraduate curriculum & syllabi under regulation 2021.

DISCUSSIONS:

1. Dr.M.Hema, Associate Professor, Department of Physics welcomed the gathering and board of studies members of Physics.



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2. Dr.M.Shanthi, Head, Department of Physics presented the syllabus for second-semester theory “PH2151- Energy Physics” common to all branches.
3. Dr.K.Jayakumar suggested a book “Solar Energy by Sukathme” as a reference book.
4. Dr.M.Mahendran thanked the management of KCET and congratulates the Physics department faculty for framing the “Energy Physics” Syllabus. He also suggested
5. changing the title of the paper as “Physics of Non-Conventional Energy Sources”. The other BoS members Dr.A.Bhaskaran and Dr.K.Jayakumar accepted the same.
6. Dr.M.Mahendran suggested the following points
 - The title of Unit-I can be changed as Fundamentals of Energy Sources.
 - In Unit-I the BoS members suggested to include important systems like Hybrid energy system or Distributed energy system
 - In types of Non-conventional energy sources, there are many number of non-conventional energy sources, mention any one or two sources specifically. He suggested including nuclear fusion also.
 - In Unit-II he suggested to include photoelectric effect and Dr.K.Jayakumar suggested to include Photovoltaic cell.
 - Reduce number of Engineering devices instead of that include fundamental physics principles used in these devices.
 - He suggested to include micro hydro power plant instead of Electric power plant.
 - Dr.K.Jayakumar suggested to reduce the content, because it is a three credit paper. Dr.M.Mahendran also accepted the point.
 - He suggested to include the wind pattern and wind data and Physics principles behind that in Unit-III. He suggested to remove topics like wind turbine and wind diesel hybrid system.
 - He suggested to include Life cycle costing of any one of the system like photo voltaic cell.



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- In Unit-IV he suggested to include Biomass Combustion Engine.
- In Unit-V, he suggested to include hydrogen energy, Dr.K.Jayakumar and Dr.A.Bhaskarn also suggested to include it.
- In Unit-V he the BoS members suggested to reduce the content and include a new unit Thermoelectric Energy which can include magneto hydrodynamic power generation and thermoelectric materials. If it is possible to include it in fifth unit, he suggested to include in any one of the unit.
- Finally, he suggested reducing the content of Unit-V. He suggested to check the title of the Text book.
- He suggested to include the books in reference section
 1. “ Physics of Solar Energy by Julien Chen”, Wiley Publishers, 2011 ,
First Edition
 2. “Solar Energy: The Physics and Engineering of Photovoltaic Conversion, Technologies and Systems” by Arno Smets in reference section.
 3. Principles of Solar Engineering by Yogi Goswami, Third Edition, CRC Press, 2015.
- 7. Dr. A. Bhaskaran suggested to incorporate all the corrections, and if corrections are carried out it will be a fruitful one.
- 8. Dr. M. Mahendran suggested to include some traditional energy sources in the first unit and Dr. K. Jayakumar concluded that all these corrections are in the hands of subject handling faculty members.
- 9. Dr.M.Shanthi presented the Skill development course syllabus to the BoS members. The courses are:



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- Building Physics for Civil Engineering
- Basic Instrumentation for Biotechnology
- Materials Science for Mechanical and Mechatronics Engineering
- Physics for Information Science for CSE, IT, AI & DS

10. In Building Physics, Dr.K.Jayakumar suggested to include measurement of Noise and its intensity. In lighting devices he suggested to include measurement of intensity of light.
11. In Basic instrumentation, Dr.K.Jayakumar suggested that it is enough, Dr.M/.Mahendran suggested to reduce the content, and to include more Physics principles.
12. Nano materials like nanoalumina, nano oxides may be introduced in the Unit-II. He suggested to remove some content and to include some recently developed materials that make comfort inside the building.
13. Dr.K.Jayakumar suggested that, in Materials Science Unit-I Magnetic material, a brief introduction about dia, para magnetic materials are essential instead of starting with ferromagnets. Dr.M.Mahendran suggested to include Spintronics and some introductory aspects of semiconductors and latest display devices like OLED & QLED in Unit-I.
14. Dr.M.Mahendran suggested that in Physics for Information Science the title of Unit-II can be changed as “Nanoscience and Nanodevices”. Dr.K.Jayakumar suggested to change the title as “Principles of Nanoscience” In the last unit he suggested to include Piezoelectric sensor.



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15. Dr.M.Mahendran suggested to reduce the content of the course, because it is one credit. He suggested to revise course outcomes.
16. Dr.G.Bharathy, Assistant Professor / Physics proposed the vote of thanks to all the external and internal experts. The meeting adjourned.


BøS Coordinator


HoD / Physics