

PANDIT DEENDAYAL ENERGY UNIVERSITY PANDIT DEENDAYAL PETROLEUM UNIVERSITY

Raisan, Gandhinagar - 382 426, Gujarat, INDIA, Website: www.pdpu.ac.in

NAAC Accredited 'A' Grade (CGPA 3.39 out of 4.00)

NIRF India Rankings 2021: 73rd in University, 68th in Engg., & 66th in Management category.

10031

Date: 15th June, 2020

Minutes of the 11th meeting of the Board of Studies (BOS) in Energy Systems and Technologies (EST)

The 11th meeting of the Board of Studies in Energy Systems and Technologies was held on 9thJune, 2020 at 5:000 pm through online virtual platform to discuss following agenda:

- 1. Introduction of course structure of M.Tech. Energy Systems and Technology to the committee
- 2. Introduction and endorsement of 'Curriculum 2020'
- 3. Any other point from Members

Following members were present in the meeting:

- 1. Prof. Indrajit Mukhopadhyay, Professor & Head SRDC, Sr. Member
- 2. Dr. Abhijit Ray, Chairman & Head, Dept. of Solar Energy
- 3. Dr. Balamurali Mayya, Asst. Professor, Dept. of Science, Member
- 4. **Dr. Naran Pindoriya**, IIT Gandhinagar (External Expert, Academics)
- 5. Dr. Rajesh N. Patel, Nirma University (External Expert, Academics)
- 6. **Shri Deepak Gadhia**, Green Ashram, Gadhia Solar Energy Systems, Solar Cooker International (External Expert, Industry)
- 7. Mr. Rajinder Kumar Kaura, CMD, Bergen Associates Pvt Ltd, (External Expert, Industry)

Following member was present as a special invitee:

Dr. Pankaj Yadav, Asst. Professor, Dept. of Solar Energy

Following points were discussed and suggested by the members:

- 1. Course structure of M.Tech. Energy Systems and Technology (focused on Solar Energy) was presented to the committee.
- 2. The course 'Galvanic Energy Storage' was brought in discussion to incorporate topics such as energy storage systems. Members suggested that,



- there should be a practical component which may reflected in the L-T-P (e.g. 3-0-0 to 3-0-2, without an additional credit).
- 3. The course 'Modeling & Simulation' was brought in discussion to incorporate a tutorial/lab hour for the subject.
- 4. The topic, 'energy policy and planning' should be incorporated in a relevant course, such as in 'Renewable Energy and Energy Management'.
- 5. Hydrogen (chemical form) energy is a future energy storage option, which should be included. At least 6 lectures may be arranged on this topic.
- 6. Shri Deepak Gadhia will be happy to provide opportunity of conducting hands-on experiments with solar thermal systems during the second semester labs. Students will be sent to his organization in phased manner for such training from next academic year.
- 7. The topic of silicon heterojunction technology (HJT) which is a future Si-PV technology should be taught. The topic will be included in course, 'Photovoltaic Science and Technology'
- 8. 'Grid stabilization' topic should be taught in details in the 'Photovoltaic Power Plant Engineering'.

New courses:

Following two courses have been introduced as discipline-centric electives in the M.Tech and PhD (course-work) programmes:

Course no	Course name	Credit structure
SE 506	Solid and Surfaces	3-0-0
SE 520	Applied Electrochemistry	3-0-0

Details of the courses have been shared with all members of the BoS through e-mail. The meeting concluded in consensus at 6:10 pm on 09/06/2020.

(Prof. Dr. Rajesh N Patel)

(Dr. Naran Pindoriya)

(Prof. Dr. Indrajit Mukhopadhyay)

(Dr. Abhijit Ray)