



Himachal Pradesh University, Shimla-05

(NAAC Accredited "A" Grade University)

INSTITUTIONAL TWO BEST PRACTICES 2018-2019

1. **Support to differently abled students-** Himachal Pradesh University is continuously working to provide best facilities and learning environment to differently abled students. Our university is in making of a disabled friendly and barrier free university and we are pioneer in few areas in the country as, we have free study provisions to the students with any kind of physical disabilities from masters program studies to the studies of Ph.D level and from year 2017 we have implemented five percentage reservations for the students with any kind of disabilities in the Ph.D programs. Himachal Pradesh University through its nodal officer for the students with physical disabilities makes sure that we reach to the problems of every disabled student in the state who is interested to get any kind of higher education. The student's approach with their different problems to the nodal officer which area sometimes social too even only than the academics and majority of their problems are not only listened but solved.

From the 2018 year onwards University has made it's our web portal fully assessable to the differently abled students. In this web portal any blind and any other student with disabilities can access freely. 2018 onwards a great demand and problem faced by the students with disabilities especially the students with visual disabilities are enjoying these facilities. This web portal strictly follows the Government of India norms under CWG 2.0.

We have accessible library in which we have computers with all necessary software for visual disabilities, now these blind students can access e library, through book share etc. This is exclusive library for persons with disabilities not only visual but students with other disabilities too. From this year onwards we have created supernumerary seat in M. Phil and Ph. d programs for the students with physical disabilities and it was largely appreciated. This year onwards too one seat in all departments has been reserved for the students with physical disabilities. Ministry of Social Justice and Empowerment, Government of India has sanctioned an amount of five crore rupees to Himachal Pradesh University for the welfare of students with physical disabilities. We are very kind to mention here that this year Ministry of Social Justice and Empowerment, Government of India has provided us an amount of 2.5 crore rupees from the total sanctioned grant of 5 crores rupees. Himachal Pradesh University has already planned as per the proposal sent to the Ministry of Social Justice and Empowerment, Government of India to develop facilities from this received grant of 2.5 crore rupees to the students with physical disabilities by creating accessible library and other teaching departments. In this regards we are planning to establish lifts and ramps which could primarily support the students with physical disabilities to the libraries and their classrooms in first phase and in second phase we will be installing few more computers and other aids supporting to them in the university and will make entire university classrooms accessible to the students with physical disabilities. In this grant all the university and library will be made accessible to the students with disabilities like lift and ramps. University has one nodal officer appointed for the students with disabilities and dean of studies acts as grievances Redressal cell incharge. Presently we have 90 students studying in different departments of the university and in that there are about 15 students those who are doing Ph.D research work in Himachal Pradesh University. In total it is humbly submitted that we don't consider it an academic responsibility only but for us this is the most wonderful duty that an educational institute can do towards the students who unfortunately either take birth with some disabilities or they find some problems in later stages of life.

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2. **Solar energy expansion in the university-** Himachal Pradesh University has started with 50 KVA solar capacity which is continuously increasing. In coming years, we are not only to work in improving the capacity of this solar power energy but also looking for good research work in energy enhancement and utilization so the society can get benefit of this. There are few parts of Himachal Pradesh in its district Lahaul Spiti which is considered the best place to generate solar energy and government has already proposed to generate at least 1000 MW solar power energy from Spiti part only.

Himachal Pradesh University, Shimla wanted to have a green footprint on its campus by harnessing and using solar energy. This in tune with the green philosophy of the state of Himachal Pradesh. This Detailed project report is a step in that direction. It is proposed that the electrical power generated from the Photo Voltaic System will serve the lighting needs library and power needs of computer labs in Science block A, B and cyber centre in the Library.

Planned SPV will be Hybrid Off grid i.e. battery backed/Stand alone systems. It will be the first of its kind on the campus of H.P. University.

The Solar Photovoltaic Power Plant at Himachal Pradesh University will be raised on the roof top of science block 'A' and 'B' would utilize area of about 1280 sq. m which is on the south side of the H.P. University Library building (Jawahar Bhawan). The SPV power plant with proposed capacity of 50 kWp would be stand alone. Battery storage needs to be provided. It would meet partial load of the following building during working days with autonomy of one day.

- (i) Central Library Jawahar Bhawan Himachal Pradesh University
- (ii) Laboratories both Science & Computer Laboratories
- (iii) Cyber centre of the H.P. University in the Library

This SPV project would also serve as a demonstration plant to harness renewable energy and the data on generation would be utilized for analysis of the various aspects of operation as also that of availability of power on the campus of Himachal Pradesh University.


The 50 kWp SPV power plant is estimated to afford annual energy feed of 84 MWh considering efficiency of the solar module as 16%, Inverter/ Power Conditioning Unit (PCU) as 94% and losses as 3% in the DC and AC system. The Plant would operate at an annual capacity utilization factor of 19%. The energy available from the Plant would vary from a minimum of 3.33 MWh during the month of July to a maximum of 8.26 MWh during the month of May. The SPV Power Plant is estimated to cost Rs. 130 lakhs.

Harnessing of non-polluting renewable energy resources to control greenhouse gases is receiving impetus from the government of India and the state government of Himachal Pradesh is encouraging the consumers of power to mark Green foot prints to help earn carbon credits. The solar mission, which is part of the National Action Plan on Climate Change has been set up to promote the development and use of solar energy for power generation and other uses with the ultimate objective of making solar energy competitive with fossil-based energy options. The solar photovoltaic device systems for power generation had been deployed in the various parts in the country for electrification where the grid connectivity is either not feasible or not cost effective as also some times in conjunction with diesel based generating stations in isolated places and communication transmitters at remote locations. With the downward trend in the cost of solar energy and appreciation for the need for development of solar power, solar power projects have recently been implemented and they have turned out to be almost maintenance free. A significant part of the large potential of solar energy in the country could be developed by promoting grid connected solar photovoltaic power systems of varying sizes as per the need and affordability coupled with ensuring adequate return on investment. The project have following benefits.

- Solar energy is a renewable energy source and does not produce any pollution.
- Electricity from solar panels can be generated on campus hence it gives us the potential to become less dependent on utility company.

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- This is also a completely noiseless and clean process of producing electricity.
- Once installed, solar panels and solar cells don't require any maintenance.
- There would be a substantial reduction in your monthly electricity bills which would help you cover your initial installation costs and eventually make profits.
- In some cases not only will you no longer have to pay for electricity, in future if you generate enough, the power company could pay you for the excess electricity added to the grid.
- Power may be stored to provide uninterrupted power supply to Labs/Class rooms/Conference Hall/Offices etc. Essential loads like Lights, Fans and Computers can be directly connected to Solar Power Plant.
- It would set an example to others and give you a clean and green image of reducing carbon emission and saving the environment.
- Generation of Solar power qualifies under CDM projects as per UN mandate and hence is eligible for carbon credits (CERs) which are tradable internationally like share certificates. Additional income will be generated this way for the institution.


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