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**Royal University of Bhutan**  
**College of Science and Technology**  
Rinchending: Bhutan



## **Admission Announcement for Master of Engineering in Renewable Energy**

The College of Science and Technology is pleased to announce admission to Master of Engineering in Renewable Energy commencing from February 2019.

### **Aims of the programme**

The Master of Engineering in Renewable Energy aims to provide meaningful education on the design, analysis and implementation of renewable energy systems and energy management. It will enhance the technical and analytical competency of engineers who are working or intend to work in renewable energy and associated fields.

### **Specific Objectives of Masters Programme**

Master of Engineering in Renewable Energy graduates will be able to:

- Communicate information in a clear and structured way in both oral and written forms
- Analyse and evaluate environmental, social, and economic impacts of renewable energy infrastructure.
- Evaluate constraints and commercial risks related to renewable energy.
- Initiate, plan and design new renewable energy infrastructure.
- Evaluate and optimise renewable energy systems using modelling techniques.
- Assess range of problems related to renewable energy and apply new emerging technologies to solve these complex problems.
- Identify areas of unexplored questions and recognize different approaches to problems.
- Enhance innovation and entrepreneurship in renewable energy.
- Demonstrate a critical awareness of theoretical design concepts and their practical implementation within renewable energy system
- Use appropriate software packages and IT skills for modelling and simulation of renewable energy systems.
- Integrate knowledge and research skills to address a research question and continue toward a research career.
- Advise clients on renewable energy projects.

## Curriculum Structure

### Semester-I

Name of the Module	Code	Contact Hours		Credit	Marks		
		L	G/T/P*		Theory		Prac
					CA	EX	
Applied Thermodynamics	APS501	3	1	15	50	50	-
Modelling and Simulation of Dynamic systems	APS502	3	2	15	75	25	-
Solar Photovoltaic and Wind Energy Technologies	REN501	3	2	15	50	25	25
Small Hydropower Plants	REN502	3	-	15	75	25	-

### Semester-II

Name of the Module	Code	Contact Hours		Credit	Marks		
		L	G/T/P*		Theory		Prac.
					CA	EX	
Solar Thermal Technology	REN503	3	2	15	50	25	25
Energy Economics and Energy Management	ENE501	3	2	15	50	50	-
Integration of Renewable Energy into Grid	REN504	3	-	15	50	50	-
Bioenergy	REN505	3	-	15	50	50	-

### Semester-III

Name of the Module	Code	Contact Hours		Credit	Marks	
		L	G/T/P		CA	EX

### Career related opportunities

The graduates of Master of Engineering in Renewable Energy would be able to work as project engineer, energy specialist, energy engineer, energy designer, energy analyst, energy manager, energy modeller, energy policy analyst, energy systems maintenance engineer and researcher. They would be ideal candidates for jobs in organisations emphasising on energy systems design or applications, solar photovoltaic, solar thermal technologies, hydropower, biomass, biofuels, wind energy system and emerging technologies; and graduates could also work as private consultant and strategists.



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### Admission Process

A total of 10 candidates will be selected based on the following criteria.

- Eligibility criteria - applicants should have a minimum of 55% in a four year/honours degree in either a Bachelor of Engineering/ Bachelor of Technology/ or a Bachelor of Science in Engineering.
- Selection criteria – applicants will be selected on merit based on the following criteria:
  - i. An interview – 60%
  - ii. Academic performance based on the degree results – 20%
  - iii. Letter of motivation – 10%
  - iv. Recommendation letter from a professor/supervisor – 10%
- Documents required
  - i. All applicants must submit copies of academic transcripts duly attested by an authorised person.
  - ii. Applicants who have graduated from the Royal University of Bhutan need not attest their documents.
  - iii. The selected applicants will have to produce original transcripts during registration.

Interested candidates (both pre & in-service) fulfilling the above criteria may directly apply to the college. The last date to submit application is 30<sup>th</sup> November 2018 and oral interview will be conducted between 1<sup>st</sup> and 5<sup>th</sup> December 2018. Selection results will be declared on 10<sup>th</sup> December 2018. The selected candidates for the programme should register by 1<sup>st</sup> February and classes will commence from 12<sup>th</sup> February, 2019.

### Accommodation

The candidates will be accommodated in the existing self-catering hostel and will have option to either join the rest of the students for dining in the student mess or arrange their own meals in the common kitchen in the hostel. The candidates will have to pay house rent and other utility bills based on the prevailing College rules and regulations.

Those wishing to bring family will have to arrange their own accommodation outside the College campus.

**President**