





# 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 August 2017.

# 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.



अश्विया कुभ वहें द्र महिंग भग र्श्वेन श्रे॥ आर्वित रेगद्द त्य्युधारेग अर्धे रे अर्श्वेन श्री Royal University of Bhutan College of Science and Technology Rinchending: Bhutan



# **Curriculum Structure**

#### Semester-I

	Code	Contact Hours		Credi	Marks		
Name of the Module					Theory		Prac
		L	G/T/P*	Ľ	CA	ΕX	
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

	Code	Contact Hours		Credi	Marks		
Name of the Module					Theory		Pra
		L	G/T/P*	Ľ	CA	EX	с.
Solar Thermal	REN503	3	2	15	50	25	25
Technology		5	2	15	50	25	23
Energy Economics and	ENE501	3	2	15	50	50	_
Energy Management		5	2	15	30	50	-
Integration of Renewable	REN504	3		15	50	50	_
Energy into Grid		5	-	15	50	50	-
Bioenergy	REN505	3	-	15	50	50	-

### Semester-III

Name of the Module	Code	Contact Hours		Credi	Marks	
					CA	EX
		L	G/T/P	, ,	UA	LA
Dissertation	PRW604	1	-	60	30	70

### **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 28<sup>th</sup> July 2017 and oral interview will be conducted between 31<sup>st</sup> July and 2<sup>nd</sup> August 2017. Selection results will be declared on 4<sup>th</sup> August 2017. The selected candidates for the programme should register by 24<sup>th</sup> August 2017 (along with the payment of the full fee for one semester). Failure to make the payment by 24<sup>th</sup> August 2017 the seat will be allocated to the next candidate. The classes will commence from 28<sup>th</sup> August.





### Fees

i.	Tuition fee/annum	:	Nu 128,695.00
ii.	CDF/annum	:	Nu 500.00
iii.	Caution money/annum	:	Nu 50.00
iv.	One time security deposit	:	Nu 1000.00

The tuition fee will increase at 2% per annum and is payable in two instalments.

### 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