

B.Voc Programme

The University Grants Commission (UGC) had launched a scheme for skills development based higher education as part of college/university education, leading to Bachelor of Vocation (B.Voc) degree with multiple entry and exit points. The B.Voc program is focused on providing undergraduate studies which would also incorporate specific job roles along with broad based general education. This would enable the graduates completing B.Voc to make a meaningful participation in accelerating India's economy by gaining appropriate employment, becoming entrepreneurs and creating appropriate knowledge.

The duration of the B. Voc courses will be six semesters in three Academic Sessions. At the end of each Semester, the candidates shall be required to present themselves for examination. The student who completes first semester successfully and is opting out from further education in B.Voc program, will be conferred Certificate in respective subject/trade. The student who completes first year i.e. first two semesters successfully and is opting out from further education in B.Voc program, will be conferred Diploma in respective subject/trade. Similarly, the student who completes first two years i.e. four semesters successfully and is opting out from further education will be conferred Advanced Diploma. The degree of B.Voc shall be conferred on the candidate who pursues the prescribed course of study for six semesters. **The B. Voc degree is equivalent to BA/B.Sc degree for higher studies and employment.**

B.Voc. (Renewable Energy Management)

Objectives of the Course:-

- To create several self-employment opportunities in renewable energy and energy efficiency sectors
- Become an expert in theoretical as well as practical aspects of renewable energy technologies, energy conservation, and management
- Develop a thorough understanding of Renewable energy resources like solar energy, wind energy, tidal energy etc.
- Participate in training programs like Hands on Training (HOT), On the Job Training (OJT) in Renewable energy Industries that enhances their ability to work

Eligibility:

Higher Secondary Certificate (10+2) or its equivalent Examination with Physics, Chemistry and Mathematics

Topics of Study:

Semester- 1	Credits
General Education Component: General English, Basic Mathematics, Fundamentals of sustainable energy and development	12
Skill Component:	18

Solar PV installation, (Theory and practical)	
Semester- 2	
General Education Component: English for communication, Mathematics, Semiconductor Physics	12
Skill Component: Rooftop Solar Grid Engineering, Energy Storage Systems, Practical: Grid Tied Solar Photovoltaic System, HOT	18
Semester- 3	
General Education Component: Fundamentals of Computers, Thermodynamics and Fluid Mechanics, Novel Energy Resources	12
Skill Component: Solar thermal technology, wind energy Practical: Thermodynamics and Solar Thermal, Fluid dynamics and Wind Energy	18
Semester- 4	
General Education Component: Analysis of a Solar Thermal system, Materials For Green Energy, Environmental Education	12
Skill Component: Solar photovoltaic energy conversion, Entrepreneurship in Solar PV Practical: Solar photovoltaics, OJT	18
Semester- 5	
General Education Component: Laser technology, environmental science, project management,	12
Skill Component: Solar photovoltaic energy conversion and solar thermal technology, Advanced solar photovoltaic Lab, Advanced solar Thermal lab	18
Semester- 6	
General Education Component: Biomass technologies and Geo thermal power generation, Power electronics, Fuel cells	12
Skill Component: Energy management and auditing, advanced solar thermal lab, experimental techniques and power electronics lab, Final project report and viva	18

AWARD OF DEGREE

The successful completion of all the courses with 'D' grade shall be the minimum requirement for the award of the degree. The certification levels will lead to Certificate/Diploma/Advanced Diploma/BVoc Degree in one or more vocational areas and will be offered under the aegis of the University. This is outlined in following table.

Award	Duration	Normal Calendar Duration	Corresponding NSQF level
Certificate	6 Months	One semester	4
Diploma	1 Year	Two Semesters	5
Advanced Diploma	2 Years	Four Semesters	6
B.Voc Degree	3 Years	Six Semesters	7

HOT AND OJT

After the second and fourth semester examinations students undergo one-month internship in relevant industries. The students of current batches underwent training in the following companies:

- Karnataka power corporation limited (KPCL), Bangalore
- Microsun Solar Tech Pvt Ltd, Bangalore
- Keltron, Trivandrum
- Surya Solar, Changanacherry
- Renewsys India Pvt Ltd, Bangalore
- Cira renewable energy Pvt Ltd, Hyderabad
- Sun energy solar solutions, Kasaragod

Industrial Visit

An industry visit/training is conducted each year so that students get an opportunity to familiarize with different renewable energy equipment and technologies around them. The students of current batches have undergone industry visit/training in the following centers:

- Ahalia Alternate Energy Pvt Ltd ,Palakkad,
- Floating Solar Power Plant by Vatsaa Energy Pvt. Ltd in Banasura Sagar dam, Wayanad

Industry collaborations

Collaborations with industries are established and their inputs are being collected to update the skill components of the curriculum. The industry collaborations are established with the following companies:

- Ecosense Sustainable Solutions Pvt. Ltd. New Delhi
- Hykon India (P) Ltd., Thrissur, Kerala
- Renewable Energy Centre MITHRADHAM Aluva, Kerala
- slashO Inc. Cochin-682018

Collaboration with Sector Skill Council

Skill Council for Green Jobs is one of the most recently launched initiatives of the Government of India aligned to the National Skill Development Mission. It is promoted by the Ministry of New and

Renewable Energy (MNRE) and Confederation of Indian Industry (CII). For the successful conduct of the B.Voc Renewable Energy Programme, collaborations are established with Skill Council for Green Jobs