

COURSE COMPACT

Course

Course code: EEE 426
Course title: Digital Electronics 2 Units
Course status: Optional

Course Duration

Two hours per week for 15 weeks (30hours)
VENUE: ROOM 302
MONDAYS, 10-12 noon

Lecturer's Data

1. Engr. Aduloju. A.O
Qualifications obtained: HND, M.sc
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Faculty: College of Science and Engineering
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2. Mr. Diarah Reuben .S
Qualifications obtained: B. Eng.
Department: Electrical and Information Engineering
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Office Location: Room A014; 1st floor, Engineering building.

Consultation Hours: Mondays and Fridays (12:00noon-2:00pm)

COURSE CONTENT

Introduction: Definition, Sources Availability, Quantity, Advantages and Disadvantages of: solar, wind, water, Biomass, and Geothermal sources of Energy. Integration, Transducers and system design. Cost effectiveness, safety, and health hazards. Socio-Economic issues.

COURSE DESCRIPTION

Renewable Energy is an Engineering course which introduces the students to a non-conventional sources of energy which are regenerative and inexhaustible in nature rather than the conventional sources which has some negative

environmental impact of burning fossil fuel. This course introduces the students to the renewable sources of energy which includes: solar, wind, water, and biomass and geothermal.

COURSE JUSTIFICATION

Renewable energy is part of the solution to energy challenges. This is because its sources are dependable and are replenished by nature as they are being used as seen in the conversion of electricity from the sunlight through the photovoltaic cells. Renewable energy is the energy in the future energy reducing the dependence on fossil fuel and it is environmental friendly.

COURSE OBJECTIVE

At the end of the course the students should be able to

1. Differentiate between conventional and non-conventional sources of energy, its advantages and disadvantages.
2. To explain how Electricity is been generated using the renewable sources.
3. The components of a turbine and how they are interrelated in making the turbine function smoothly.
4. To explain the working principle of a turbine.

COURSE REQUIREMENT

To derive maximum benefit from Renewable energy, the students must be familiar with Electromagnetic fields & waves, Physical Electronic, Electrical Machines and Electrical Power System.

METHOD OF GRADING

Method of Grading- An example below

S/N	Grading	Score (%)
1.	Test	10
2.	Assignments	5
3.	Article presentations	15
4.	Final Examination	70
	Total	100