



**NATIONAL OPEN UNIVERSITY OF NIGERIA
FACULTY OF SCIENCES**

DEPARTMENT OF ENVIRONMENTAL SCIENCE

Plot 91, Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja

COURSE CODE: ESM392

COURSE TITLE: Introduction to Remote Sensing and Radiation Principles

UNIT: 2 CREDIT UNITS

TIME: 2Hours

Instruction: Attempt question number ONE (1) and any other THREE (3) questions. Question number one (1) is compulsory and carries 25 marks, while the other questions carry equal marks (15) each.

1. Describe the two Digital Image Classification methods.
 - 1.b What do you understand by the term Electromagnetic Radiation.
 - 1.c. Write detail notes on the following
 - i. Texture
 - ii. Pattern
 - iii. Site and Situation
- 2.a Explain the concept of energy interaction with Earth Surface Features.
- 2.b. Explain the science of remote sensing.
- 3.a What do you understand by the term Electromagnetic Radiation.
- 3b. Explain the concept of Wavelength and Frequency in remote sensing
- 4a. Explain the term Visible Spectrum.
- 4b. Discuss the Radiation Principle in remote sensing
5. Highlight the Imaging Systems identified by Lillisand and Kieffer (2000).