Lesson 2: Introduction to Digital Image Processing

Description:
This lesson explains how digital images are formed, represented, and manipulated. You'll learn about pixel structure, color models, and basic image types used in processing.

What is Digital Image Processing?
Digital Image Processing involves manipulating digital images using algorithms. It focuses on enhancing image quality or extracting useful information.

Image Representation
Learn how images are stored as matrices of pixel values, including grayscale (single-channel) and RGB (three-channel) formats.

Color Models
Discover the most common color models like RGB, HSV, and CMYK, and understand when and why each is used.

Types of Images
Understand the differences between binary, grayscale, and color images. This section also introduces indexed and multispectral images.

Outro
A quick wrap-up of key terms and ideas in digital image processing, preparing you for hands-on processing techniques in upcoming lessons.
