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AI

## CHAPTER 1

### LEARN ABOUT OPTICAL CHARACTER RECOGNITION AND HEAD POSE ESTIMATION

Learn to extract text from images and track head movements for interactive applications.

## CHAPTER 2

### EXPLORE NATURAL LANGUAGE PROCESSING (NLP)

Delve into Natural Language Processing, a branch of AI focused on the interaction between computers and human languages.

## CHAPTER 3

### LEARN APPLICATION OF AI - ASSISTANT FEATURE

Discover how AI can be leveraged to create assistive technologies for people with special needs.

## CHAPTER 4

### EXPLORE MACHINE LEARNING

Gain a comprehensive understanding of Machine Learning (ML) concepts, including supervised and unsupervised learning, classification, regression, and clustering.

## CHAPTER 5

### LEARN ABOUT DEEP LEARNING AND NEURAL NETWORKS

Explore the advanced realm of Deep Learning and understand the architecture of Neural Networks.

## CHAPTER 6

### INTRODUCTION TO ARDUINO & EXPLORE TINKERCAD SOFTWARE

This chapter introduces embedded systems and their applications. Learn how to use Tinker-CAD Arduino software to simulate and build embedded projects, from basic circuits to complex IoT devices.

## CHAPTER 7

### ALL ABOUT C++ CODING

Dive into C++ programming, a powerful language for system and application development. This chapter covers the basics of C++ syntax, data structures, object-oriented programming, and more, providing a solid foundation for coding.

## CHAPTER 8

### INTRODUCTION TO VARIABLES AND CONTROL STATEMENTS

Master the fundamental building blocks of programming with variables and control statements. Learn how to use variables to store data and control statements like loops and conditionals to dictate the flow of your programs.

ARDUINO CODING

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## CHAPTER 9

### INTRODUCTION TO MOTORS AND THEIR TURNING CONCEPTS

Understand the principles behind motors and how they work. This chapter covers different types of motors, their applications, and the concepts of turning and controlling motor speed and direction in practical projects.

## CHAPTER 10

### INTRODUCTION TO SIGNALS AND SENSORS

Learn the differences between analog and digital sensors and their applications in various projects. This chapter explains how to interface sensors with microcontrollers and use them to gather and process environmental data.

## CHAPTER 11

### INTRODUCTION TO MIT APP INVENTOR

Get started with MIT App Inventor, a user-friendly platform for creating Android or iOS applications. This chapter guides you through the process of setting up your account, navigating the interface, and understanding the basic components.

## CHAPTER 12

### INTRODUCTION TO THE PALETTE AND TEXT-TO-SPEECH APPLICATION

Discover the features of the MIT App Inventor palette and learn how to create a Text-to-Speech application. This chapter covers the essential components and blocks required to build interactive and voice-responsive apps.

## CHAPTER 13

### DESIGN GAMES APP – BOUNCE A BALL

Create a fun and engaging "Bounce a Ball" game app using MIT App Inventor. This chapter provides step-by-step instructions to design, develop, and test a simple game, teaching fundamental concepts of game development.

## CHAPTER 14

### BUILD DIGITAL DOODLE DRAWING APPLICATION

Explore the creation of a Digital Doodle Drawing application. Learn how to use the canvas component and other tools in MIT App Inventor to design an app that allows users to draw, save, and share their digital artwork.

## CHAPTER 15

### CREATE AN APP - CLICK A PICTURE

Design a "Click a Picture" app that utilizes the device's camera. This chapter covers the implementation of camera functionalities, image display, and storage, enabling users to capture and save photos directly from the app.