ROCHESTON® CERTIFIED IoT ENGINEER

Certified by Rocheston®

RCIE® Certification Program Guide

ROCHESTON
NEW YORK
DISTINGUISHED

About Rocheston

Rocheston, a young New York based internet technology start-up, despite being in its nascent stage, is a company that is raring to go. Rocheston has a worldwide presence, with its headquarters in New York. The company's technology development center is based out of Chennai, with reach offices in Singapore and Dubai.

The team at Rocheston consists of young, liberal, innovative and forward-thinking individuals **who want to make a difference and change the world. At its core, Rocheston is a next-generation innovation company**, with cutting-edge research and development in emerging technologies such as Cybersecurity, Internet of Things, Big Data and automation.

Rocheston Certified IoT Engineer (RCIE)

A Rocheston Certified IoT Engineer will be trained in the various disciplines required to navigate the challenges of the Internet of Things revolution. The course provides understanding and insight into developments in networking, data management and analytics, communication devices, embedded systems and user interface design.

At present, IoT finds application in the fields of Transportation, Design, Education, Healthcare, Fitness & Lifestyle and Construction. The sectors where knowledge of the IoT is being sought include Product Management, Robotics, Hardware Engineering, Business Intelligence, Networking,Industrial Programming, Software Development, User Interface and Experience Design (UI/UX) and more.

Target Audience

- Students of business management
- Engineering and software development professionals
- Students of mobile application design
- IoT trained professionals

Eligibility

A Bachelor's degree with one year of professional experience or credential in computer science, engineering, mathematics, or other information technology related fields. Basic software development, networking, system administration, and mobile application design skills is preferred.

What the course will consist of:

- A 5-day Training Program
- Time: 9:30 AM – 6 PM
- The provision of an active web portal
- Seminars conducted by qualified engineers
- Best in-class environment

Cost

For pricing in your region, please contact the local distributor.

RCIE Exam

- Exam can be taken on Rocheston Cyberclass or Pearson VUE testing platform.
- Multiple Choice Objective Questions
- Total count - approximately 120 questions
- Pass Percentage: 70%
- Retake Policy - You may retake the exam any time on an additional fee. For further details contact the exam coordinator.

The Cyberclass Web Portal

The access to an online E-learning platform will be given to attendants on registration. It will contain a series of study videos, pre-recorded lectures, white papers, educational animations and power point presentations. The Web Portal can be used to catch-up on a missed session or to view an attended session again.

http://cyberclass.rocheston.com

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Course Completion

- On completing the course and successfully passing the exam, the candidate will be provided with a RCIE certification.
- Candidates are free to use the logo as per the Terms & Conditions as a Rocheston Certified Professional.
- The candidate will also receive a Welcome Kit and login information to access the Members' Portal.
- The Members' Portal is an online forum for Certified RCIEs to interact.
- The certification is valid for two years and it can be renewed online.
- Contact the course coordinator for any enquiries about the renewal fee or downloading of the updated course material.

Course Objectives

In the RCIE program you will learn:

- IoT Concepts
- IoT Infrastructure
- Network Architecture and Design
- Deep Learning
- IoT Programming Languages
- IoT Cloud Storage Data
- Smart Cities
- Big Data Analytics
- IoT Architect

Course Outline

The modules that are part of the RCIE theory courses

Module 1: IoT concepts

Module 2: Infrastructure for IoT

Module 3: IoT Network Architecture and Design

Module 4: IoT Business Models

Module 5: Entrepreneurship Opportunities in IoT

Module 6: IoT Standards

Module 7: IoT Platforms

Module 8: IoT Development Boards

Module 9: IoT Circuits and Wiring

Module 10: IoT Sensors, Actuators and Smart Objects

Module 11: Interconnecting Smart Objects

Module 12: IoT Programming Languages

Module 13: IoT Network Layers

Module 14: Building Prototypes using 3D Printers

Module 15: IoT Cloud Data Storage

Module 16: Deep Learning

Module 17: Big Data Analytics

Module 18: Industry 4.0

Module 19: Smart Cities

Module 20: IoT Case Studies

Module 21: IoT Security

Module 22: Integration of IoT with Home Automation Products

The modules that are part of the RCIE practical course

Module 0: Accessing USB through an Azure virtual machine

Module 1: Blinking an LED

Module 2: Reading a Potentiometer

Module 3: Driving an RGB LED

Module 4: Driving Multiple LEDs

Module 5: Push Buttons

Module 6: Reading a Photoresistor

Module 7: Reading an SPDT Switch

Module 8: Using an I2C Backlight LCD

Module 9: Reading a Temperature Sensor

Module 10: Driving a Servo Motor

Module 11: Driving a DC Motor

Module 12: Using a DC Motor driver with inputs

Module 13: Using a Piezo Buzzer

Module 14: Sound Detector

Module 15: Shift Register

Module 16: Real Time Clock Module

Module 17: 8x8 LED matrix

Module 18: Control servo motors by using joystick

Module 19: Tilt Sensor

Module 20: Water Sensor

Module 21: Driving Stepper Motor by using Stepper Motor Driver

Module 22: Relay

Module 23: Using RFID

Module 24: Motion sensor (PIR) with buzzer

Module 25: Temperature and Humidity Sensor

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