



**ROCHESTON® CERTIFIED
CYBERSECURITY ENGINEER**

Certified by Rochester®

RCCE® Certification Program Guide



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.



Target Audience

There is a growing need for an equally sophisticated cybersecurity framework with the increased dependence on interconnected cloud technologies.

Individuals who wish to build a career in cybersecurity across the following industries:

- Healthcare
- Smart Cities
- Industry 4.0
- Transportation
- Electronics
- Governance
- Automation
- Robotics
- Telecom
- Smart Appliances
- Department of Defense
- Finance



Eligibility

A Bachelor's degree with one year of professional experience or credential in computer science, engineering, mathematics, or other information technology related fields. You will need basic hacking, networking, system administration, and Linux skills.

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.

Note: If you don't have basic hacking skills you can attend Rocheston's Extreme Hacking Level 1 Program (which is included in this course).

RCCE[®] Exam

- Exam can be taken on Rochester Cyberclass or Pearson VUE testing platform.
- Multiple Choice Objective Questions
- Total count - approximately 90 questions for each exam
- Pass Percentage: 72%
- 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>



Course Completion

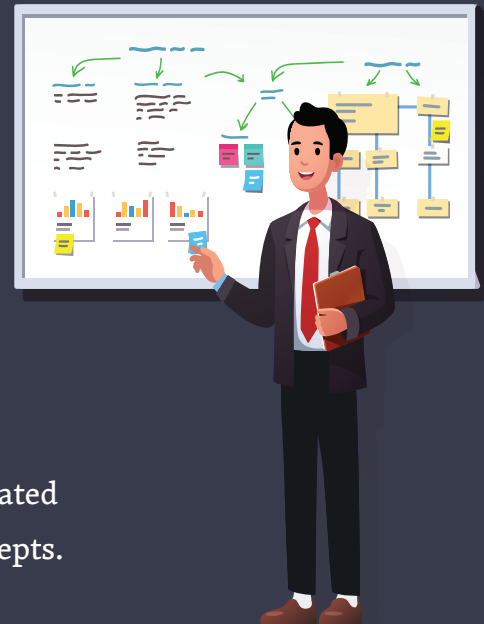
- On completing the course and successfully passing the exam, the candidate will be provided with a RCCE certification.
- Candidates are free to use the logo as per the Terms & Conditions as a Rocheston Certified Professional.
- The candidate will also receive a Welcome Kit and login information to access the Members' Portal.
- The Members' Portal is an online forum for Certified RCCEs 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 RCCE® Level 2 program you will learn to:

- Utilize sophisticated and extremely advanced phishing techniques.
- Carry out advanced blockchain exploits, cryptocurrency mining attacks and cyberweapon attacks.
- Understand quantum computing and advanced cloud security.
- Complement RCCE Level 1, RCCE Level 2 imparts specialist knowledge on persistent privacy problems, IoT vulnerabilities, open source intelligence, sophisticated stealth tools in the Dark web and other specialist concepts.
- Understand the types of cryptography and its history, encryption, data protection, key generation algorithms, RSA security and cryptography.
- Mail authentication tokens, authorization, and implementation of private servers.





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Course Outline

RCCE® Level 2

Module 1: Sophisticated and Extremely Advanced Phishing Techniques Harvested by Chinese and Russian Hackers

Module 2: Deep Network Insights for Deeper Analytics

Module 3: Read Privileged Kernel Memory and Leak Data to Escalate Privileges

Module 4: Advanced Blockchain Exploits and Cryptocurrency Mining Attacks

Module 5: Sophisticated Government use of Cyberweapon Attacks and How they work

Module 6: Principles of Quantum Entanglement to Secure Communication
(Unhackable networks)

Module 7: Guidance For Cybersecurity Disclosure and Advanced Techniques for Cyber Bounty hunting

Module 8: Advanced Mobile Banking and ATM Trojans

Module 9: Quantum Computing and Cryptography

Module 10: Dark Web and How to Download Sophisticated Stealth Tools

Module 11: Advanced Cloud Security - Azure, AWS, Digital Ocean, Google VM.

Module 12: H2O Driverless AI, Amazon SageMaker, and Azure Machine Learning AutoML

- Module 13:** Deepfakes and Generating Automated Fake news
- Module 14:** Advanced Threat Modelling Attacks
- Module 15:** Cognitive-Powered Security Intelligence Platform
- Module 16:** Advanced Ransomware and Cryptojacking Attacks
- Module 17:** Open Source Intelligence in Cybersecurity
- Module 18:** Attacking AI Chatbot and Voice Assistants - Siri, Google Home and Alexa
- Module 19:** DeepLocker: How AI Can Power a Stealthy New Breed of Malware
- Module 20:** Cybersecurity Insurance
- Module 21:** Advanced File System Protection With Cyber Deception
- Module 22:** Legal AI: How Machine Learning Is Aiding, Concerning Law Practitioners
- Module 23:** Advanced Threat Hunting Techniques
- Module 24:** Vulnerability Management Process Based on Weaponization and Asset Value
- Module 25:** Passwordless Authentication With FIDO
- Module 26:** Advanced PowerShell Attacks
- Module 27:** Next Generation of the Cyber Range Attacks
- Module 28:** Advanced Payment Gateway and Financial Cyberattacks
- Module 29:** Developing Immersive Cybersecurity Simulation
- Module 30:** Advanced DDOS Attacks Using IoT Botnets
- Module 31:** Attacking Hidden Endpoint Management Firewalls and IDS
- Module 32:** Advanced BGP Router Attacks

- Module 33:** Machine Learning with Automated Software Vulnerabilities
- Module 34:** Hacking Medical IoT Devices
- Module 35:** Hacking Biometric Security, and Facial Recognition Systems
- Module 36:** Threat Intelligence Models for Cyber Warfare
- Module 37:** Artificial Intelligence and Cyberwarfare
- Module 38:** Hacking Connected Cars
- Module 39:** Hacking Power Grids
- Module 40:** Advanced Mobile Phone Hacking, Spying, GPS and Monitoring
- Module 41:** Home Automation and IoT Gadgets
- Module 42:** How To Use Tensorflow
- Module 43:** Advanced EMP Cyberattacks
- Module 44:** Hacking heart devices, pacemakers, insertable cardiac
- Module 45:** Integrating IoT Security into Vulnerability Management Program
- Module 46:** Containers & Cloud Native Security





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