Graduate Certificate in Software Automation (GCSA)
Developed and awarded by Singapore Institute of Management, Singapore

Schedule for GCSA

January Intake	May Intake	September Intake
Cloud Computing- Concept and Applications	Managing Cybersecurity	Robotic Process Automation for Industry 4.0

Modules Outlines for GCSA

Cloud Computing- Concept and Applications

This module offers a conceptual introduction and practical implementation of cloud computing. Topics include types of cloud service models (e.g., IaaS, PaaS, SaaS), cloud infrastructure and network architecture, virtual machines and containers, cloud storage and automation, cloud security and identity management. Applications of cloud computing such as parallel processing, microservices, controller-based management systems, and edge computing for Industrial Internet of Things will also be discussed. After completing this module, students should be able to prepare for a Cloud Practitioner exam and get a certification.

Managing Cybersecurity

This module focuses on understanding the security and privacy issues surrounding the use of internet and smart technologies in Industry 4.0. Topics covered include use of information systems for business processes, legal, ethical and privacy concerns, digital forensics, secure system architecture, network vulnerabilities and analysis, malware and hacking, basics of cryptography, risk management and incident management

Robotic Process Automation for Industry 4.0

This module introduces students to the core concepts of Robotic Process Automation (RPA) and how it combines software robots with Artificial Intelligence to automate routine business operations. Topics include introduction to RPA tools, fundamentals of RPA, RPA programming, planning, and implementing RPA in organisations, roles in RPA, developing and deploying a software robot, RPA providers and future of RPA. This course will help students learn how to create and programme software robots to handle various routine activities such as data extraction from documents and email automation. After completing this module, students should be able to prepare for a RPA exam and get a certification.