Training For IT Professionals

Implementing, Maintaining and Optimizing Green Computing Technologies

Course Code: IMOGCT

Course Overview: This hands-on practical course (ISO/IEC 2382-36:2008 Compliant) will focus on the Implementation, Operations and Continual Improvement phases of the GCI Process Life-cycle. Course delegates will be formally introduced to the real-world concepts, principles and practices of Green Computing. This course leads to the Certified Green Computing Professional certification upon successful completion of the CGCP02 Exam.

Course Objectives: At the end of the course, delegates will have adequate knowledge and skills to implement, operate and optimize green computing technologies for small, medium and large IT infrastructures.

Length: 5 Days

Language: English

Audience(s): This course is intended for IT consultants, system integrators, vendors, systems engineers and network specialists who are responsible for implementing and troubleshooting green computing technologies for an organization.

Delivery Method: Instructor-led (classroom)

Courseware: Printed GCI Official Training Guide

Pre-requisites: 1 to 3 years in designing or deploying IT systems

Course Outline:

Module 1 - Introduction to Green Computing
1.1. Definition
1.2. Objectives
1.3. Common Terminology

1.4. Statistics
1.5. Research Assignment
1.6. Hands-On Assignment
1.7. Review

Module 2 - Introduction to the Green Computing Lifecycle (GCL)
2.1. Mapping the Concepts of Green Computing To the GCL
2.2. How Does The GCL Work?
2.3. Research Assignment
2.4. Hands-On Assignment
2.5. Review

Module 3 - Green Computing Technologies Primer
3.1. Data Center Energy Efficiency
3.2. Virtualization Techniques
3.3. Grid Computing
3.4. Cloud Computing
3.4.1. Software as a Service (SaaS)
3.4.2. Infrastructure as a Service (IaaS)
3.4.3. Platform as a Service (PaaS)
3.5. Power Optimization Techniques
3.6. Research Assignment
3.7. Hands-On Assignment
3.8. Review

Module 4 - Green Computing Standards & Legislation
4.1. ISO 14001
4.2. ISO 50001
4.3. Energy Star
4.4. EPEAT
4.5. Kyoto Protocol
4.6. Research Assignment
4.7. Hands-On Assignment
4.8. Review

Module 5 - Implementing, Operating & Optimizing Virtualization Techniques
5.1. Implementing a VT Infrastructure
5.2. Managing a VT Infrastructure
5.3. Troubleshooting & Optimizing a VT Infrastructure
5.4. Research Assignment
5.5. Hands-On Assignment
5.6. Review

Module 6 - Implementing, Operating & Optimizing Cloud Computing
6.1. Implementing a CC Infrastructure
6.2. Managing a CC Infrastructure
6.3. Troubleshooting & Optimizing a CC Infrastructure
6.4. Research Assignment
6.5. Hands-On Assignment

6.6. Review

Module 7 - Implementing, Operating & Optimizing Grid Computing
7.1. Implementing a GC Infrastructure
7.2. Managing a GC Infrastructure
7.3. Troubleshooting & Optimizing a GC Infrastructure
7.4. Research Assignment
7.5. Hands-On Assignment
7.6. Review

Module 8 - Implementing, Managing & Optimizing Data Center Energy Efficiency
8.1. Implementing a DCEE Infrastructure
8.2. Managing a DCEE Infrastructure
8.3. Troubleshooting & Optimizing a DCEE Infrastructure
8.4. Research Assignment
8.5. Hands-On Assignment
8.6. Review

Module 9 - Implementing, Operating & Optimizing Power Optimization Techniques
9.1. Implementing a PO Infrastructure
9.2. Managing a PO Infrastructure
9.3. Troubleshooting & Optimizing a PO Infrastructure
9.4. Research Assignment
9.5. Hands-On Assignment
9.6. Review