



Jansons Institute of Technology

Karumathampatti, Coimbatore - 641 659
Approved by AICTE and Affiliated to Anna University
An ISO 9001:2015 certified institution

Department of Computer Science and Engineering
Industry Readiness Course - Syllabus

Virtual Computing

2018 - 2019 ODD Semester

Course Objectives:

- To virtualize the basic functionality of today's typical computing systems
- To allow the decoupling of the user-perceived behavior of hardware/software systems.
- To cover the basic mechanisms and techniques involved in resource virtualization, machines to virtualized networked infrastructures..

Course Outcomes:

- To implement the Techniques for virtualization of networked computer.
- To analyze various virtual computing of the machines.
- To virtualize the basic functionality of virtual computing.

Syllabus:

Module 1 Introduction to Virtual computing

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Introduction to Virtual Computing - Architecture of Virtual computing - issue on virtualization technologies-Survey of Virtual computing – Formal Requirements for Virtualizable - Third Generation Architectures - basic functionality of virtual computing - Intel Virtualization Technology .

Module 2 Virtual Machine security

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Virtual Machine Introspection Based Architecture for Intrusion Detection - Application and Analysis of the Virtual Machine - Approach to Information System Security - Terra: a virtual machine-based platform for trusted computing - Analysis of the Intel's Pentium - Ability to Support a Secure Virtual Machine Monitor

Module 3 Virtual Computing techniques and case studies

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Virtualizing I/O Devices on VMware Workstation's - Hosted Virtual computing Monitor - a user-mode part of the linux kernel - Comparison of Software and Hardware - Techniques for x86 Virtualization - Interactive Virtual computing Using Periodic Realtime Scheduling - Migration of Virtual computing - Memory Resource Management in VMware ESX Server - virtual computing Replication - Network Virtualization

Course Designed By

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