# 摘 要

随着信息技术的不断发展，时代对高校的信息化要求也越来越高。我院作为软件学院在信息化的浪潮之中理所当然地应该充当起排头兵的作用。

在实际的上机教学过程之中我们逐渐发现了许多问题。如机房机器价格昂贵、易损坏、性能容易跟不上时代；实验环境配置麻烦；需要场地面积大；时间地点限制死板等等。要解决这些问题虚拟云实验室可以说是大势所趋。它具有以下优点：一、节约资金。二、节约空间。三、便于维护提供高可用性。四、资源的合理利用。五、存储技术更好的保障数据的安全性。VMware公司是虚拟化领域的世界巨头，它旗下的VMware vSphere为我们提供了一整套虚拟化的解决方案。其除了能将硬件虚拟化还能对资源进行智能控制以及提供虚拟桌面。可以说是我们实现虚拟实验室的首选工具。

本文将以VMware Vsphere虚拟化架构为基础介绍虚拟化的概念、类型、技术优势并重点阐述虚拟实验室的搭建、以及实现桌面虚拟化的过程。为我校虚拟实验室的建设提供借鉴。

关键字：虚拟实验室；VMware Vsphere；虚拟化

# Abstract

With the continuous development of information technology, the information requirements of colleges and universities are also getting higher and higher. As a college of software, we should take the lead in the wave of information.

In the actual process of teaching on the machine we gradually discovered many problems. Such as machine room machine is expensive, easy to damage, easy to keep up with the times performance; configuration of the experimental environment troublesome; need a large venue space; time and place constraints rigid and so on. To solve these problems virtual cloud laboratory can be said that the trend. It has the following advantages: First, save money. Second, save space. Third, easy to maintain to provide high availability. Fourth, the rational use of resources. Fifth, storage technology to better protect the data security. VMware is a world leader in virtualization and its VMware vSphere offers us a complete virtualization solution. In addition to virtualizing hardware, it also provides intelligent control of resources and provision of virtual desktops. It can be said that we are the preferred tool for implementing virtual labs.

This article will be based on VMware Vsphere virtualization architecture introduces the concept of virtualization, type, technical advantages and focus on the establishment of virtual labs, as well as the realization of desktop virtualization process. Provide reference for the construction of our virtual laboratory.

Key words：Virtual Labs; VMware Vsphere; Virtualization