

Civil, Materials and Computing Engineering

Part 2

Edited by
Wen-Pei Sung and Jimmy (C.M.) Kao



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PART 2

Selected, peer reviewed papers from the
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(ICCMC 2014),
December 6-7, 2014, Taiwan

Edited by

Wen-Pei Sung and Jimmy (C.M.) Kao



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Jimmy (C.M.) Kao

Preface

2014 International Conference on Civil, Materials and Computing Engineering (ICCMC 2013) will be held on December 6-7, 2014, in Taiwan. The aim is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Materials, Civil and Computer Engineering. The conference aims mainly at promoting the development of Materials, Civil and Computer Engineering, strengthening the international academic cooperation and communications, and exchanging research ideas. Submitted conference papers will be reviewed by technical committees of the Conference.

In this conference, we received more than 1000 submissions from email and electronic submission system, which were reviewed by international experts, and about 350 papers have been selected for presentation, representing 12 national and international organizations. I think that ICCMC 2014 will be the most comprehensive Conference focused on the Materials, Civil and Computer Engineering. The conference will promote the development of Materials, Civil and Computer Engineering, strengthening the international academic cooperation and communications, and exchanging research ideas.

We would like to thank the conference chairs, organization staff, the authors and the members of International Technological Committees for their hard work. Thanks are also given to Trans Tech Publications.

We hope that ICCMC 2014 will be successful and enjoyable to all participants. We look forward to seeing all of you next year at the MEME 2015.

October, 2014

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Computer Network Management Technology and Its Application

Glimpse

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Key words: computer; network management technology; overview mode; application

Abstract: Computer network is a product of modern computer technology and communications technologies. Computer network management technology refers to the initialization operation and monitor operation of computer networks in the active state. Computer network management technology function is to collect the related information in the network system. This article will mainly focus on computer network management technology and its application to start on.

In-depth study of computer network management technology, prompting the network to obtain sufficient stability and efficiency in the process of running. Use appropriate means to deal with computer network technology and diagnose and solve related problems, so as to continuously optimize and adjust the computer network management technologies. The following will describe in detail the meaning, models and applications of computer network management technology.

Chapter One An overview of computer network management technology

With the growing popularity of computers, network technology has received widespread attention, and permeated all sectors of society. Quality of network management directly affects the efficiency of the network. Therefore, improving the quality of network management is crucial. Network management is used when the network fails, can quickly and accurately find the cause of the failure, and to solve the problem, the network system to normal operation. NMS includes the following: first, the system functions; second, a network resource; third, a network management information; fourth, a network management system structure. In short, network management is to ensure that the network is in a stable long-run state, and can fully meet the growing demand. Currently, the network management primarily towards two aspects of development, namely enhancements, simple operation, it not only can reduce the difficulty of the work of management personnel, but also greatly improve the quality of network management.

Chapter Two Several common network management technology and its mode of inquiry

2.1 Several common network management technology

Currently, more common types of network management techniques are: First, SNMP. This technology is mainly for Internet management developed a network technology. This network technology operations more convenient, and has a broad scope, so SNMP has become the universal standard for today's networks. SNMP technology is flawed, in the management of complex networks, poor performance, only supports TCP / IP network; Second, CMIP. CMIP application of technology to make up the deficiency of SNMP technology, whether technology or standards, the technologies are relatively mature. The biggest drawback of this technology is too complex to lead to a substantial increase in cost, but also limits the further promotion and application of SNMP technology; Third, distributed object network management technology. Distributed object network management technology to manage content will all be seen as distributed objects, and interactive processing for distributed objects, and ultimately for the effective management of the network. Distributed object structure is relatively simple network management technology, the operation