

# MUHAMMAD AMIR MEHMOOD

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## RESEARCH INTERESTS

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My research interests are in large-scale computer networks. They encompass traffic engineering, routing, switching, network measurements and network security. I focus on problems faced during the operations of large IP/ATM backbone networks. I also have a particular interest in adapting tools from various vendors to solve problems in the large-scale backbone networks.

## CURRENT POSITION (JUNE 2001 – PRESENT)

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Assistant Divisional Engineer, Information Technology Infrastructure Department,  
Pakistan Telecommunication Company Limited.

## EDUCATION

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- December 2005      **MSc. in Electrical Engineering with specialization in Computer Engineering from University of Engineering and Technology**, Lahore Pakistan  
*Thesis Title: Design of Efficient Architecture for Implementing End-to-End QoS in IP Networks.*
- October 1996      **BSc. in Electrical Engineering from University of Engineering and Technology**, Lahore Pakistan  
*Thesis Title: Real Time Implementation of Code Excited Linear Prediction (CELP) on AT&T's DSP32C.*

## AWARDS

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- September 2005      **Best Conference Paper Award** in *IEEE International Conference on Emerging Technologies (ICET)*, 2005 organized by Center for Advanced Studies in Engineering (CASE) on September 2005 at Islamabad, Pakistan.
- October 1996      **First Prize** in *2<sup>nd</sup> IEEE Annual Final Year Project Competition* held at University of Engineering and Technology Lahore, Pakistan. October 1996.

## PUBLICATIONS

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- 2005      *Evaluation of VoIP quality over the Pakistan Internet Exchange (PIE) backbone*  
Mehmood, M.A.; Jadoon, T.M.; Sheikh, N.M.  
IEEE International Conference on Emerging Technologies –ICET 2005  
Islamabad, Pakistan.  
Page(s): 258- 263
- 2005      *Assessment of VoIP quality over access networks*  
Mehmood, M.A.; Jadoon, T.M.; Sheikh, N.M.  
Page(s): 5 pp.  
The first IEEE and IFIP Conference in Central Asia on Internet – ICI 2005  
Bishkek Kyrgyzstan.

## EXPERIENCE

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June 2001 - To Date

### **PTCL - Pakistan Telecommunication Company, Ltd.**

Currently working as "**Network Administrator**" of Pakistan Internet Exchange *PIE* Lahore, which is the Information Technology Infrastructure (ITI) Division of PTCL. PIE is a Tier-2 ISP responsible for providing IP Transit Services to ISP's, software houses, Call Centers and educational institutions on high-speed intercity IP backbone consisting of STM-1/4 links between Karachi, Lahore Islamabad and other cities. Internationally PIE is connected to Tier-1 ISP's like MCI, BT, TIS, STIX, and TeleGlobe with STM-1/4 links through SEA-MEA-WE 3/4 optical fiber cables.

I am involved in maintenance, operations and planning of Pakistan Internet Exchange CORE/DISTRIBUTION Layer equipment like Cisco GSR 12410,7513,7206 Huawei NE80/40 routers, Cisco Catalyst Switches 6506, 4003, ATM Switches BPX 8620 & MGX 8850, Cisco PIX 525 Firewall, Arbor Peak Flow SP, Sniffer. For the last five years I have been involved in Level one Technical support to Lahore PIE node customers. My core competency is in routing and switching protocols such as OSPF and BGP. Also I have good experience in protocol analysis of IP traffic along with VOIP signaling protocol such as SIP, H323 and RTP media formats such as G.711, G.729a and G.723.1. Currently I am a part of technical team, which is conducting provisional acceptance test for the migration of PIE network from IP to MPLS for PIE Data & Voice Backbones. I have been involved in the setup of Packet Data Switched Network PDSN for wireless V-Phone Internet service.

May 2000 – June 2001

### **SIEMENS ENGINEERING PAKISTAN**

I worked here as "**Senior Executive Engineer**" and was the regional Head of the Services Department of SIEMENS ICN EN Division Lahore region. I was responsible for the installation and commissioning of SIEMENS Digital Switches (HICOM 350, HICOM 300E, HICOM 150 E etc. along with voice mail systems from VOXTRON, DIALOGIC and different types of Call logging Software. Installation of Switches includes Routing, Zoning, Trunk Group planning and Tariff management. Routine maintenance includes all type of onsite and remote fault diagnosis and rectification. Here I lead a team of fifteen switching support engineers and technicians for the maintenance and commissioning of Siemens Switches. Also I was into Installation and commissioning of CALL CENTER Solutions (HIPATH PRO CENTER office ver 1.0) that includes unified messaging, voice mail and ACD (Agent Call Distribution) with HICOM 150 E.

Oct 97 – Apr2000

### **CALLMATE TELIPS TELECOM, Ltd.**

I worked here as "**Manager Technical**" and was Involved in installation, commissioning and maintenance of Payphone Network along with Central Fault Management System (CFMS C90) for both Magnetic Card (TSP 91) and Chip Card (TEAM2m) from URMET Italy. Maintenance and Troubleshooting of Payphones was carried out by checking on line alarms status from Central Fault Management System (CFMS C90) and through different teams of technicians working in the field. Protecting line losses by installing Line Protection Units in SIEMENS EWSD and ERICSSON AXE-10 Digital Switches in Lahore Telecom Region.

Jan 97 – Aug 97

### **CADCAM CONSULTANT, Ltd.**

I work here as "**Project Engineer**" for the rural electrification project for the province of Baluchistan. I was responsible for the design of LT and HT lines for rural areas under the specifications of WAPDA.

## TEACHING EXPERIENCE

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### **UNIVERSITY OF CENTRAL PUNJAB, LAHORE ( VISITING FACULTY)**

- Spring 2006 "Advance and Next Generation Computer Networks". CS5133  
"Multimedia Applications Over Broadband Networks". TE5313
- Fall 2005 "Advance Computer Networks". MSc/MS Telecom class
- Spring 2005 "Current & Next Generation Networks". BS Telecom class.

### **UNIVERSITY OF ENGINEERING & TECHNOLOGY, LAHORE ( EXTERNAL EXAMINOR)**

- Spring 2006 "Computer Networks" 7<sup>th</sup> Term Session-2003 Regular BSc Electrical (Communication) Engineering

### **COMSATS NETWORK TRAINING , LAHORE ( VISITING FACULTY)**

- Fall 2003 "Diploma in Telecommunication" [http://www.cnt.com.pk/djp\\_com.htm](http://www.cnt.com.pk/djp_com.htm)  
"Interconnecting Cisco Network Devices" <http://www.cnt.com.pk/icnd2.htm>

## INVITED TALKS

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- Aug 2006 "**Traffic Prediction and Voice Quality Assessment**" South Asian Network Operators Group (SANOG- 8 ) held from 27<sup>th</sup> July to 4<sup>th</sup> August 2006, Karachi, Pakistan.
- Dec 2005 "**BGP Issues in Pakistan Internet Exchange**" University of Engineering and Technology Lahore.
- Nov 2002 "**Pakistan Internet Exchange – PIE**" Lahore University of Management Sciences LUMS. Invited by IEEE Lahore Section.

## PROFESSIONAL TRAININGS

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- 2006 *Introduction of Arbor Peak Flow SP* May 2006 organized by ARBOR Networks at Karachi.
- 2005 *Implementing Cisco Quality of Service*, 6<sup>th</sup> -12<sup>th</sup> September 2005 organized by Fast lane Dubai.
- 2005 *Implementing Cisco Multi Protocol Label Switching*, 13th-19<sup>th</sup> September 2005 organized by Fast lane Dubai
- 2005 *Implementing Cisco Multi Protocol Label Switching, Traffic Engineering*, 20<sup>th</sup> -24<sup>th</sup> September 2005 organized by Fast lane Dubai
- 2003 *Cisco 12000 Series Technical Product Training*, 16<sup>th</sup> - 20<sup>th</sup> June 2003 organized by Fast lane Dubai
- 2003 *IP Network Security*, 4<sup>th</sup> - 6<sup>th</sup> June 2003 organized by National Post Graduate Institute of Telecommunication and Informatics, Islamabad.
- 2003 *Advance Networking in Cisco Routers*, 10<sup>th</sup> October to 31<sup>st</sup> December 2003 organized by Corvit Pakistan.

- 2002 *Telecom Management, 1<sup>st</sup> – 31<sup>st</sup> January 2002 organized by Excellence at Telecom Staff College Haripur.*
- 2002 *Introduction of Cisco Routers, Switches, basic Configuration, Advance Routing Protocols (OSPF & BGP) and MPLS. 22<sup>nd</sup> –30<sup>th</sup> April 2002 organized by Sysnet Education Karachi.*
- 2002 *ATM Technology and WAN Switches. Solaris System Administration and Cisco WAN Manager. 3<sup>rd</sup> – 10<sup>th</sup> May 2002 organized by Sysnet Education Karachi.*
- 2002 *Cisco Router and Switches Trouble shooting & Cisco PIX firewall and Network Security. 11<sup>th</sup> – 13<sup>th</sup> May 2002 organized by Sysnet Education Karachi.*
- 2002 *Configuration of Integrated Services Digital Network (ISDN). 9<sup>th</sup> – 12<sup>th</sup> September 2002 organized by National Post Graduate Institute of Telecommunication and Informatics, Islamabad.*
- 2001 *Seven Months training of Switching, Transmission System and IT Infrastructure of PTCL in the whole country that include Siemens EWSD, Ericsson AXE-10, PDH, SDH, DXX and Optical Fiber Systems organized by PTCL staff College, Haripur*
- 2000 *Introduction and Configuration of HiPATH Procenter Office Unified Messaging Solution. 13<sup>th</sup> –25<sup>th</sup> November 2001 organized by SIEMENS Regional Training Institute Bangkok Thailand.*
- 2000 *Installation and Commissioning of SIEMENS Digital Switches and Voice Mail Systems. September 2000 organized by SIEMENS Engineering Company Limited. Pakistan.*
- 1998 *Management of Centralized Fault Management System and Anti Line Theft Units. April 1998 organized by TELIPS International Karachi.*

## CITIZENSHIP

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Pakistani Citizen