

## **Proposal for Special Session in IEEE CCNC 2015**

**Title:** Special Session on Secure Cloud Computing Technologies for Mobile Health Services and Applications

**Description:** Cloud computing is one of the leading technologies for mobile health services and applications. The demand of continuous availability of these services and applications has paved the way for cloud computing in introducing novel methods, which must be able to store, process and manage the huge amount of health data. At the same time, cloud computing also heightens concerns over privacy, security, access and compliance. These concerns may affect data transmission and patients' privacy, and may also prevent access to health data and services. Although, cloud technologies and security efforts have evolved significantly, there are still many issues and challenges that require considerable research attention. This special session attracts high-quality technical papers reporting original research on secure communication protocols, information assurance, data privacy and applications security in mobile health services and applications.

**Targeted list of topics:** Topics of interest include, but are not limited to, the following:

- Secure communication protocols
- Data storage and management
- Vulnerability assessment in cloud-health systems
- Unified and ubiquitous of cloud-health systems
- MAC and routing protocols for cloud-health systems
- Secure healthcare information exchange based on mobile agents
- Intrusion detection in cloud-health systems
- Trust management
- Data security and data privacy for mobile healthcare devices
- Healthcare privacy, trust and liability issues.

### **PC Co-Chairs:**

**1- Dr. Sana Ullah**

CISTER Research Center

ISEP, Polytechnic Institute of Porto (IPP), Portugal.

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**Biography:** Dr. Sana Ullah is working as a Research Scientist at CISTER Research Unit at ISEP/IPP. He received his Ph.D. degree in Information and Communication Engineering from Inha University in 2011. He worked as an assistant professor in the College of Computer and Information Science, King Saud University, Riyadh from Dec. 2011 to Mar. 2014. He currently serves as an editor for Springer Journal of Medical Systems, KSII Transaction of Internet and Information Systems (TIIS), Wiley Security and Communication Network (SCN), Journal of Internet Technology and International Journal of Autonomous and Adaptive Communications Systems (IJAACS). He served as a guest editor for many top journals including Elsevier Journal of Information Science (INS), Springer Journal of Medical System (JOMS), and Springer Journal of Telecommunication Systems (TS). He also served as a co-chair/TPC member for a number of international conferences including BodyNets, IEEE PIMRC, IEEE Healthcom, IEEE Globecom, and IEEE WCNC.

- 2- **Dr. Haidar Abbas**  
Center of Excellence in Information Assurance  
King Saud University, Riyadh.

Biography: Haider Abbas is presently a Research Fellow/Assistant Professor at Centre of Excellence in Information Assurance, King Saud University, Saudi Arabia. Dr. Abbas received his MS in Engineering and Management of Information System in 2006 and PhD in Information Security in 2010 from KTH- Royal Institute of Technology, Stockholm, Sweden. Dr. Abbas holds various certifications like CEH (Certified Ethical Hacker) from EC- Council, ITM (Information Technology Manager) from Stockholm School of Entrepreneurship, Stockholm, Sweden. His research focuses various aspects on how information and communication security can be understood and thus managed in business/governmental organizations. Dr. Abbas has authored several international publications, supervising MS/PhD students and participating in various ICT related funded projects in EU, Pakistan and KSA.

- 3- **Prof. Sudip Misra**  
School of Information Technology,  
Indian Institute of Technology, Kharagpur, India  
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Biography: Dr. Sudip Misra is an Associate Professor in the School of Information Technology at the Indian Institute of Technology Kharagpur. Prior to this he was associated with Cornell University (USA), Yale University (USA), Nortel Networks (Canada) and the Government of Ontario (Canada). He received his Ph.D. degree in Computer Science from Carleton University, in Ottawa, Canada, and the masters and bachelors degrees respectively from the University of New Brunswick, Fredericton, Canada, and the Indian Institute of Technology, Kharagpur, India. Dr. Misra has several years of experience working in the academia, government, and the private sectors in research, teaching, consulting, project management, architecture, software design and product engineering roles.

His current research interests include algorithm design for emerging communication networks. Dr. Misra is the author of over 180 scholarly research papers (including over 90 journal papers, many of which are in IEEE/ACM journals). He has won eight research paper awards in different conferences. He was awarded the IEEE ComSoc Asia Pacific Outstanding Young Researcher Award at IEEE GLOBECOM 2012, Anaheim, California, USA. He was also the recipient of several academic awards and fellowships such as the Young Scientist Award (National Academy of Sciences, India), Young Systems Scientist Award (Systems Society of India), Young Engineers Award (Institution of Engineers, India), (Canadian) Governor General's Academic Gold Medal at Carleton University, the University Outstanding Graduate Student Award in the Doctoral level at Carleton University and the National Academy of Sciences, India – Swarna Jayanti Puraskar (Golden Jubilee Award). He was also awarded the Canadian Government's prestigious NSERC Post Doctoral Fellowship and the Humboldt Research Fellowship in Germany.

Dr. Misra is the Editor-in-Chief of the International Journal of Communication Networks and Distributed Systems (IJCNDS), Inderscience, U.K.. He has also been serving as the Associate Editor of the Telecommunication Systems Journal (Springer), Security and Communication Networks Journal (Wiley), International Journal of Communication Systems (Wiley), and the EURASIP Journal of Wireless Communications and Networking. He is also an Editor/Editorial Board Member/Editorial Review Board Member of the IET Communications Journal, IET Wireless Sensor Systems, and Computers and Electrical Engineering Journal (Elsevier). Dr. Misra has published 7 books in the areas of wireless ad hoc networks, wireless sensor networks, wireless mesh networks, communication networks and distributed systems,

network reliability and fault tolerance, and information and coding theory, published by reputed publishers such as Springer, Wiley, and World Scientific.

He was invited to chair several international conference/workshop programs and sessions. He served in the program committees of several international conferences. Dr. Misra was also invited to deliver keynote/invited lectures in over 20 international conferences in USA, Canada, Europe, Asia and Africa.

**4- Prof. Yuh-Shyan Chen**

College of Electrical Engineering and Computer Science  
National Taipei University, Taiwan  
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Biography: Prof. Yuh-Shyan Chen received the B.S. degree in Computer Science from Tamkang University, Taiwan, R. O. C., in June 1988 and the M.S. and Ph.D. degrees in Computer Science and Information Engineering from the National Central University, Taiwan, R. O. C., in June 1991 and January 1996, respectively. He joined the faculty of Department of Computer Science and Information Engineering at Chung-Hua University, Taiwan, R. O. C., as an associate professor in February 1996. He joined the Department of Statistic, National Taipei University in August 2000, and joined the Department of Computer Science and Information Engineering, National Chung Cheng University in August 2002. Since 2006, he has been a Professor at the Department of Computer Science and Information Engineering, National Taipei University, Taiwan.

Prof. Chen was Vice Chair of Task Force on "Telecommunications" of Intelligent Systems Applications Technical Committee, IEEE Computational Intelligence Society from 2007. Prof. Chen serves as Director, Graduate Institute of Communication Engineering (8/2008~7/2009, 10/2011~Present), National Taipei University, ROC. Prof. Chen now also serves as Editor-in-Chief of International Journal of Ad Hoc and Ubiquitous Computing (SCIE), Regional Editor (Asia and Pacific) of IET Communications (SCIE), and Editorial Board of Telecommunication System Journal (SCIE), EURASIP Journal on Wireless Communications and Networking (SCIE), International Journal of Communication Systems (SCIE), Mobile Information Systems (SCIE), Journal of Internet Technology (SCIE), and IET Networks. He served as Guest Editor of ACM/Springer Mobile Networks and Applications (MONET), Telecommunication Systems, Wireless Communications and Mobile Computing, EURASIP Journal on Wireless Communications and Networking, The Computer Journal, Wireless Personal Communications, International Journal of Communication Systems, and IET Communications. His paper wins the 2001 IEEE 15th ICOIN-15 Best Paper Award. Prof. Chen was a recipient of the 2005 Young Scholar Research Award, National Chung Cheng University, R.O.C. His recent research topics include wireless communications and mobile computing, and next-generation personal communication system. Dr. Chen is a senior member of the IEEE Communication Society, ACM (SIGMobile) member, and Phi Tau Phi Society.

**5- Dr. Farrukh Aslam**

National University of Computer and Emerging Sciences, Islamabad, Pakistan  
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Dr. Farrukh Aslam Khan is working as an Associate Professor at the Department of Computer Science, National University of Computer and Emerging Sciences (NUCES), Islamabad, Pakistan. He did his MS in Computer System Engineering from GIK Institute of Engineering Sciences and Technology, Topi, Pakistan, and Ph.D. in Computer Engineering from Jeju

National University, South Korea, in 2003 and 2007 respectively. He has more than 50 publications in refereed international journals and conferences. His research interests span the areas of Computer Networks with emphasis on security, routing, and performance evaluation of wired and wireless networks. He is the founding director of Wireless Networking and Security (WiNGS) research group at NUCES, Islamabad. He has successfully supervised one PhD student and fifteen MS theses students at NUCES, Islamabad. Currently, four PhD students and 2 MS thesis students are working under his supervision.

Dr. Khan has served as Guest Editor of special issues of Journal of Supercomputing (Springer) and International Journal of Distributed Sensor Networks (Hindawi). He has also served as reviewer of reputed international journals including IEEE Transactions on Emerging Topics in Computing, Applied Soft Computing (Elsevier), Data and Knowledge Engineering (Elsevier), Journal of Medical Systems (Springer), Swarm Intelligence (Springer), EURASIP Journal on Wireless Communications and Networking (Springer), Wireless Personal Communications (Springer), International Journal of Information and Computer Security (Inderscience), and Security and Communication Networks (Wiley). He was Technical Committee Co-chair of ICET 2011 (Pakistan), and Publicity Co-chair of WIAS 2011 (Canada) and ICET 2009 (Pakistan). He also served as TPC member of several international conferences and workshops including IEEE CEC 2014, ICSI (2011, 2012, 2013, 2014), EvoComnet (2012, 2013, 2014), IUPT (2011, 2012, 2013), ICACI 2012, SUComS (2011, 2012), FIT 2011, FGCN (2009, 2010), ACN (2009, 2010) and ICET (2009, 2010, 2014).

### **TPC Members**

- 1- Christos Verikoukis, CTTC, Spain
- 2- Farrukh Aslam, King Saud University, Saudi Arabia
- 3- Min Chen, HUST, China
- 4- Joel Rodrigues, University of Beira Interior, Portugal
- 5- Thaier Hayajneh, New York Institute of Technology, USA.
- 6- Han-Chieh Chao, National Ilan University, Taiwan
- 7- Emil Jovanov, University of Alabama, USA
- 8- Jun Suzuki, University of Massachusetts, USA
- 9- Jaime Lloret Mauri, Polytechnic University of Valencia, Spain
- 10- May El Barachi, Zayed University, UAE