

SungIk Jun

Principal Research Engineer
SW Service Research Team
Cloud Computing Research Department
ETRI
Korea

Department of Cloud Computing Research
Electronics and Telecommunications Research Institute (ETRI)
161 Gajeong-dong YuSeong-gu Daejeon, 305-700, South Korea
Telephone: +82-42-860-5562, Fax: +82-42-860-6699
E-mail: sijun@etri.re.kr

Education

- 1987 M.S. (Computer Science) Chung-Ang University
- 1985 B.S. (Computer Science) Chung-Ang University

Professional Career

- 2009.4-present Principal Research Staff, SW serviced Research Team, ETRI
- 2001-2009 Team Leader, Wireless Application Research Team, ETRI
- 1998-2001 Principal Research Staff, Dept. of MPLS systems Research, ETRI
- 1993-1998 Senior Research Staff, Real-time OS Research Team, ETRI
- 1987-1992 Research Staff, Real-time OS Research Team, ETRI

Grants and Awards

- 2010 ETRI Overseas Visiting Research Grant
- 2003 Granted a certificate of award from the Ministry of Information Communication of the government
- 1997 Won the company award certificate of president in the ETRI

Project Experience

- 2009.3-present Participated in the research on the development of SaaS Platform for software service of Small and Medium Enterprises. (Ministry of Knowledge Economy, Korea)
- 2006.3-2009.2 Project Leader in the research on the development of a Common Security Core Module for supporting secure and trusted service in the next generation mobile terminals. (Ministry of Information and communication, Korea)
- 2004.3-2007.2 Project Leader in the development of Security Platforms for Integrated Wireless Networks. (Ministry of Information and communication, Korea)
- 2002.2-2004.6 Project Leader in the development of the USIM chipset technologies for IMT-2000. (Ministry of Information and communication, Korea)
- 2001-2002 Project Leader in the development of the Next-generation IC Card and IC card reader. (Ministry of Information and communication, Korea)
- 1998-2001. Participated in the research on the development of Real-time OS for MPLS systems. (Government funded)
- 1997-1998. Participated in the research on the development of Objected Oriented OS for Embedded systems. (Korea, Government funded)
- 1993-1998. Participated in the research on the development of Real-time OS for ATM systems. (Korea, Government funded)
- 1993-1995. Participated in the research on the development of Real-time OS for CDMA systems. (Korea, Government funded)
- 1987-1992. Participated in the research on the development of Concurrent Real-time Operating Systems for the telecommunication systems. (Korea, Government funded)

Major Research Topics

- Real-time OS, Embedded OS
- Fault tolerance systems
- Information Security
- Advanced Smart Card Technologies
- Realization of the Java Card based USIM Technologies for IMT2000(3GPP) Networks

- Wireless Security (WLAN IEEE802.11b,a,g, 802.1x, Wibro and mobile WiMAX IEEE802.16e, WCDMA, HSDPA, inter-working security etc) Technologies
- Development of Mobile Trusted Platform Module for future terminals
- Wireless Sensor Network Security

Patents

- International Patents 7 registration, 32 patents pending
- Domestic patents: 101 Registration

Selected Publications (in the 1990s)

- 2009 Mooseop Kim, Jaecheol Ryou, and Sungik Jun, "Compact Implementation of SHA-1 Hash Function for Mobile Trusted Module," WISA 2008, LNCS 5379, pp. 292–304, 2009
- 2008 Jun-Cheol Park and Sung Ik Jun , "Network-based AAA Routing over Heterogeneous Wireless Networks," IJCSNS International Journal of Computer Science and Network Security, VOL.8 No.12, December 2008
- 2008 SuGil Choi, JinHee Han, JeongWoo Lee, JongPil Kim, and SungIk Jun, "Implementation of a TCG-Based Trusted Computing in Mobile Device," TrustBus2008, LNCS 5185, pp. 18–27, 2008
- 2007, Kiyeal Lee, Seokhwan Yang, Sungik Jun and Mokdong Chung, "Context-Aware Security Service in RFID/USN Environments using MAUT and Extended GRBAC," Journal of Information Assurance and Security, Volume 2, Issue 4, December 2007
- 2007, Jongpil Kim and Sungik Jun, "Authentication and Key Agreement Method for Home Networks Using a Smart Card," ICCSA 2007, LNCS 4705, Part I, pp. 655–665, 2007.
- 2007 S.I. Jun et al., "Power Efficient Hardware Architecture of SHA-1 Algorithm for Trusted Mobile Computing," ICICS 2007(LNCS)
- 2007 S.I. Jun et al., "Efficient Implementation of the Keyed-Hash Message Authentication Code based on SHA-1 Algorithm for Mobile Trusted Computing," ATC 2007(LNCS)
- 2007 S.I. Jun et al., "A Unified Authentication Method for Integrated WCDMA/WLAN/WiBro Networks," ITC-CSCC2007.
- 2007 S.I. Jun et al., "Key Management Protocol for Roaming in Wireless Interworking Systems," IJCSNS(International Journal of Computer Science and Network Security).

- 2006 S.I. Jun et al., "Low Power AES Hardware Architecture for Radio Frequency Identification," IWSEC2006, LNCS4266
- 2005 S.I. Jun et al., "Interworking security for public WLAN, Wibro and WCDMA : Mobile and wireless systems," KICS(Korea Information and Communications Society), Vol.44, No.1, pp.63~80.
- 2005 Y.S. Kim, S.I. Jun et al., "Trends of Interworking Security Technologies for the Wireless Networks," ETRI
- 2003 K. Wonjong, S.I. Jun, Y.S. Park, HJ, Cho, "A Platform-Based SoC Design of a 32-bit Smart Card," ETRI Journal, vol.25, no.6, pages 510-516, December 2003
- 1998 Sung Ik Jun', Boo Geum Jung', Young Jun Cha', Hyeoung Kyu Chang, Hyung Hwan Kim*, Em Hyang Lee*, Hyeong Ho Lee", and Young Man Kim, "SROS: A dynamically-Scalable Distributed Real-time Operating System For ATM Switching Network," Proceeding of GLOBECOM'98, pp.2918-2923, Nov. 1998
- 1998 S.I. Jun, H.K. Chang, W. Choi, Y.M. Kim, "Stand-by Loading Scheme: An Effective Software Retrofit Method for a Switching System," iscc, pp.343, Third IEEE Symposium on Computers & Communications, 1998
- 1997 Boo-Geum Jung, SungIk Jun, et. al, "Scalable Architecture for Distributed Real-Time Operating Systems," IEEE ICCS/ISPACS, Sydney Australia, 1997
- 1996 Boo-Geum Jung, Young-Jun Cha, Hyung-Hwan Kim, Sung-Ik Jun, Ju-Hyun Cho, "Dynamic Code binding for Scalable Operating systems in Distributed Real-Time Systems", IEEE ICCS/ISPACS, Singapore.
- 1996 S.I. Jun, J.H. Cho, and Y.Y. Park, "Replacement Scheme of Non-Stop Software to Minimize Interference Time in a Distributed Real-Time System," KIPS, March 1996.
- 1993 S.I. Jun, G.H. Lee, J.H. Cho, and H. Lee, "Design and Implementation of a Fault-Tolerant Control Architecture for Large-Scale Real-Time System," '93 APSITT (AIT), pp. A1-6, October 19, 1993