

CURRICULUM VITAE

Hassan Takabi

LERSAIS, School of Information Sciences, University of Pittsburgh

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Personal Information First Name: Hassan
Last Name: Takabi
Date of Birth: May 22, 1982
Gender: Male
Marital Status: Single

Research Interests

- Information Assurance and Security including Access Control Models, Trust Management, Privacy, and Web Security
- Usable Privacy and Security
- Distributed, Mobile, and Pervasive/Ubiquitous Computing
- Computer and Communication Networks
- Semantics-Aware Computing
- Artificial Intelligence (Fuzzy Logic, Neural Networks, Multi Agent Systems)

Education School of Information Sciences, University of Pittsburgh, Pittsburgh, PA, USA
Ph.D. Student, Information Science, August 2008 - Present
Advisor: Dr. James B. D. Joshi

Institute for Computing Research (ICR), Faculty of BCIM, London South Bank University, London, UK
Research Scholar, 2007 - 2008
Advisor: Prof. Ali Abdallah

Department of Computer Engineering, Sharif University of Technology, Tehran, Iran
M.Sc., Information Technology (Networking), 2007
Thesis Title: "Fuzzy Role-Based Access Control System"
Advisor: Dr. Rasool Jalili

Department of Computer Engineering, Amirkabir University of Technology (Tehran Polytechnic, Tehran, Iran
B.Sc., Computer Engineering (Software), 2004
Thesis Title: "Developing a filtering and monitoring software for Personal Computers with remote administration"
Advisor: Dr. S. M. HosseiniNezhad

Shahid Beheshti , Bagherololom High School (National Organization for Development of Exceptional Talents), Sabzevar, Iran
Diploma, Mathematics and Physics Discipline, 1999.

Honors and Awards

- Travel Grant, the 16th ACM Conference on Computer and Communications Security (CCS 2009), Chicago, IL, USA, November 9-13, 2009.
- Travel Grant, the 2009 ACM Workshop on Secure Web Services (SWS 2009), Chicago, IL, USA, November 13, 2009.
- Scholarship, University of Pittsburgh, 2009–2010.
- Scholarship, University of Pittsburgh, 2008–2009.
- Scholarship, London South Bank University, 2007–2008.
- Scholarship for FOSAD 2008 “International School on Foundations of Security Analysis and Design”, Summer School, 25-30 August 2008, Italy.
- Scholarship for SWING 2008 “3rd Bertinoro PhD School on Security of Wireless Networking”, Summer School, July 27 - August 1 2008, Italy.
- Scholarship for SSoRC 2008 “Summer School on Rational Cryptography”, 1-6 June 2008, Italy.
- Scholarship for SWING 2007 “2nd Bertinoro PhD School on Security of Wireless Networking”, Summer School, 26-31 August 2007, Italy.
- Iran Telecommunication Research Center (ITRC), grant on M.Sc thesis, May 2006.
- Ranked 8th among more than 8000 B.Sc. participants, Nationwide Graduate University Entrance Exam for Master of Information Technology, Iran, September 2004.
- Ranked 378th among more than one million students of all over Iran, Nationwide University Entrance Exam, and accepted as one of the first students in software engineering major in Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran, September 1999.

Publications

Book

- Hassan Takabi and Reza Hesamifard. Preparation for MSc Entrance Exam in Computer Engineering and Information Technology. Pardazesh, 2005. (Persian).
The book includes Operating Systems Concepts, Fundamentals of Data Structures, and Principles of Formal Languages and Automata, appropriate for BSc students.

Journal Paper

- Ali E. Abdallah and Hassan Takabi. Formalizing Delegation and Integrating it into Role-Based Access Control Models. *Journal of Information Assurance and Security*, Vol. 5, No. 1, 2010.
- Hassan Takabi, Ali Hajizadeh Moghadam, and Ahmad Khonsari. Hybrid adaptation of the maximum contention window (CW_{max}) and minimum contention window (CW_{min}) for Enhanced Service Differentiation in IEEE 802.11 Wireless Ad-hoc Networks. *International Journal of Computer Science and Network Security*, Vol. 6, No. 12, December 2006.

Conference Paper

- Hassan Takabi, James B. D. Joshi, and Hassan A. Karimi. A Collaborative K-anonymity Approach for Location Privacy in Location-Based Services. In *Proc. 5th Int'l Conference on Collaborative Computing: Networking, Applications and Worksharing (Collaborate-Com 2009)*, Crystal City, Washington D.C., USA, November 11-14, 2009.
- Hassan Takabi, Minsoo Kim, James B. D. Joshi, and Michael B. Spring. An Architecture for Specification and Enforcement of Temporal Access Control Constraints using OWL. In *Proc. 2009 ACM Workshop on Secure Web Services (SWS 2009), Held in conjunction with the 16th ACM Conference on Computer and Communications Security (CCS 2009)*, pages 21–28. Chicago, IL, USA, November 13, 2009.
- Hassan Takabi and James B. D. Joshi. An Efficient Similarity-Based Approach for Optimal Mining of Role Hierarchy. In *Proc. 16th ACM Conference on Computer and Communications Security (CCS 2009)(Poster)*, Chicago, IL, USA, November 9-13, 2009.

- Ali E. Abdallah and Hassan Takabi. Integrating Delegation with the Formal Core RBAC mode. In *Proc. 4th International Symposium on Information Assurance and Security (IAS 2008)*, pages 33–36. Naples, Italy, September 8-10, 2008.
- Hassan Takabi, Morteza Amini, and Rasool Jalili. Separation of Duty in Role-Based Access Control Model through Fuzzy Relations. In *Proc. 3rd International Symposium on Information Assurance and Security (IAS 2007)*, pages 125–130. Manchester, UK, August 29-31, 2007.
- Hassan Takabi, Morteza Amini, and Rasool Jalili. Enhancing Role-Based Access Control Model through Fuzzy Relations. In *Proc. 3rd International Symposium on Information Assurance and Security (IAS 2007)*, pages 131–136. Manchester, UK, August 29-31, 2007.
- Hassan Takabi, Morteza Amini, and Rasool Jalili. Trust-Based User-Role Assignment in Role-Based Access Control. In *Proc. 2007 ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2007)*, pages 807–814. May 13-16, 2007.

Submitted Paper

- Hassan Takabi and James B. D. Joshi. StateMiner: An Efficient Similarity-Based Approach for Optimal Mining of Role Hierarchy. Submitted to the 15th ACM symposium on access control models and technologies (SACMAT'10), Pittsburgh, PA, USA, June 9-11, 2010.
- Minsoo Kim, Minskoo Kim, Hassan Takabi, James B. D. Joshi. A Survey and Outlook of Use of Rules in Access Control Systems. Submitted to 31st IEEE Symposium on Security and Privacy, Oakland, California, USA, May 16-19, 2010.
- Richard Shay, Michelle L. Mazurek, Peter F. Klemperer, and Hassan Takabi. Exploring Reactive Access Control. Submitted to the 28th ACM Conference on Human Factors in Computing Systems (CHI 2010), Atlanta, GA, USA, April 10-15, 2010.

Work in Progress

- Hassan Takabi and James B. D. Joshi. Access Control and Security Issues in Community-Built Databases. Chapter to be included in the book “Community-Built Database: Research and Development”, to be published by Springer.
- Hassan Takabi and James B. D. Joshi. A Semantic-Aware Approach for Service Composition in Cloud Computing Environmet. To be submitted to the IEEE Security and Privacy, Special Issue on Cloud Computing Security.
- Richard Shay, Michelle L. Mazurek, Peter F. Klemperer, Hassan Takabi, Lorrie Cranor, and Lujo Bauer. Reactive Access Control Policies. To be submitted to the sixth Symposium on Usable Privacy and Security (SOUPS), Redmond, WA, July 14-16, 2010.

Theses

- Hassan Takabi. *Fuzzy Role-Based Access Control System*. M.Sc. thesis, Department of Computer Engineering, Sharif University of Technology, Tehran, Iran, 2007. (In Persian).
- Hassan Takabi. *Developing a filtering and monitoring software for Personal Computers with remote administration*. B.Sc. thesis, Department of Computer Engineering, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran, 2004. (In Persian).

Teaching Experiences

Teaching

- Operating System Laboratory, Sharif University of Technology, Fall 2006.
- Operating System Laboratory, Sharif University of Technology, Summer 2006.
- Operating Systems, University of Applied Science and Technology, Tehran, Iran, Winter 2006.
- Database Systems, University of Applied Science and Technology, Tehran, Iran, Winter 2006.

- Certified Securepoint Professional Network Administrator (CSPNA), SystemGroup Network Engineering Co, Winter 2006.

Teaching Assistantship

- Introduction to Security, University of Pittsburgh, Fall 2009.
- Security Management, University of Pittsburgh, Spring 2009.
- Developing Secure Systems, University of Pittsburgh, Spring 2009.
- Information Technology for Managers, Amirkabir University of Technology, Summer 2005.
- Information Technology for Managers, Amirkabir University of Technology, Spring 2005.

- Work Experiences**
- **LERSAIS, School of Information Sciences, University of Pittsburgh**, Pittsburgh, PA, USA, (August 2008-present).
Research Assistant.
 - **E-Security Research Center, Institute for Computing Research (ICR), Faculty of BCIM, London South Bank University**, London, UK, (August 2007- July 2008).
Research Assistant.
 - **Sharif Network Security Center, Sharif University of Technology**, Tehran, Iran, (January 2006-August 2007).
Research Assistant.
 - **SystemGroup Network Engineering Co.**, Tehran, Iran, (April 2005-August 2007).

Network Security Manager of SystemGroup Co. (with about 40 branches in different provinces)

IT Security Expert, some projects that I managed for the company are as follows:
SAPCO (Supplying Automotive Parts Company) ◦ Zanzan Industry and Mine Organization ◦ Mazandaran Wood and Paper Industry ◦ Air Compressor mfg. Havayar ◦ Ilam Water and Sewage Co. ◦ Bisotoun Power Generation Management Co. ◦ Hormozgan Industry and Mine Organization ◦ Zanzan Cooperative Organization ◦ Tak Makaron ◦ Semnan Cooperative Organization ◦ Kermanshah Natural Resources Organization

- **Amirkabir MetaNetworking Co**, Tehran, Iran, (Sep 2003-Dec 2004).
System programmer.

- Technical Skills**
- Programming Languages: C/C++, Pascal, C#, Java, Prolog, System programming and kernel development
 - Programming Environments: MS Visual Studio .Net, Borland C++ Builder, Delphi
 - Database Systems: Microsoft SQL Server, MySQL
 - Applications: L^AT_EX, FarsiT_EX, Microsoft Office, Adobe Photoshop, Macromedia Flash
 - Operating Systems: Windows, Dos, Linux
 - Networking and System Administration: Experience with Windows and Linux system administration, networking technologies (LAN, WAN technologies, VPN.), networking products (Cisco, 3Com, DLink, Linksys,)
 - Network Security Administration: Experience with security products(PIX, NetScreen, Securepoint, Sourcfire,), Certified Securepoint Professional Network Administrator (CSPNA), Securepoint GmbH Co., Germany, Certified Ethical Hacker(CEH), Certified Penetration Testing Professional(CPTP), Information Security Management System(ISMS), BS 7799 Standard

- Activities**
- Webmaster, 11th IEEE International Conference on Information Reuse and Integration (IRI 2010).
 - Reviewer, ACM Transaction on Knowledge and Data Engineering
 - Reviewer, 14th ACM symposium on Access control models and technologies (SACMAT'09), 2009.

- Reviewer, the IEEE 23rd International Conference on Advanced Information Networking and Applications (AINA'09), 2009.
- Committee Member, the 2008 International Conference on Security and Management (Sam'08), Las Vegas, Nevada, USA, 2008.
- Reviewer, ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2007), 2007.
- Member of ACM.
- Member of IEEE.
- Officer, Iranian Cultural Association of the University of Pittsburgh (Persain Panthers), 2009-2010.
- Vice-president, Doctoral Student Organization (Doctoral Guild), School of Information Sciences, University of Pittsburgh, Pittsburgh, PA, USA, 2009–2010.
- Vice-president, Diversity Student Organization (DSO), School of Information Sciences, University of Pittsburgh, Pittsburgh, PA, USA, 2009–2010
- Member of Computer Society of Iran (SCI).
- Member of Iranian Society of Cryptography (ISC).
- Member of editorial board, Amn, the Bulletin of Sharif Network Security Center.
- Reviewer, 8th Iranian Student's Conference on Electrical Engineering (ISCEE), 2005.
- Member of Executive Committee, The First Iranian RoboCup Simulation League, Computer Engineering Department, Amirkabir University of Technology, Tehran, Iran, 2000.
- Member of Executive Committee of Second Student Conference of Computer Society of Iran, Amirkabir University of Technology, Tehran, Iran, 1999.
- Member of Student Council in Amirkabir University of Technology Computer Engineering Dept. (1999-2000).
- Member of editorial board, Pooyesh(students' periodical).
- Member of editorial board, Pazhvak(students' periodical).

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