Curriculum Vitae

Somayeh Sobati Moghadam

Address

Electrical & Computer Engineering Department
Hakim Sabzevari University
Sabzevar, Iran
P.O.Box: 397
Phone: +98-51-44102968
Email: s.sobati@hsu.ac.ir
Homepage: http://staff.hsu.ac.ir/sobati/

Personal Details

Gender: Female
Date of birth: 3th of August, 1979
Place of birth: Sabzevar, Iran

Education

2002	BSc at the University of Amirkabir University of Technology (Tehran Plytechnic), Iran
2007	MSc in Information Technology at the University of INSA de Lyon, France
	Supervisor: Prof. Roberto Laurini
2017	PhD at the University of Lyon2 (Université de Lyon2), France.
	Supervisor: Prof. Jérôme Darmont

RESEARCH

Security	Data Security, Data Confidentiality, Secure Data Outsourcing, Secure Computing, Privacy-Preserving Computation, Privacy-Preserving Cloud Outsourcing
Business Intelligence	Decision Support Systems, Secure BI in Cloud, Data Warehousing, OLAP, NO-SQL DBMS, Secure Data Warehousing
Cloud Computing	Cloud Security, Privacy-Preserving Data Outsourcing, Lightweight Cryptographic Schemes for Cloud, Big Data Analytic, Security in IoT, Secure Protocols for IoT

PUBLICATION

A. Shahbakhsh, K. Javan, M. Zaferanieh, **S. Sobati-Moghadam**, "Multi-Attribute Decision-Making Methods to a Cloud Service Providing Selection", The 31th Conference on Electrical Engineering May 9-11, Tehran Polytechnic, Iran, IEEE, 2023.

A. Fayoumi, **S. Sobati-Moghadam**, A. Rajayian, , C. Oxlay, P.F. Montero, A. Safarian, "Home Care Automation: Market Research, Industry Analysis, and Security Assessment", 2023 International Conference On Cyber Management And Engineering (CyMaEn), Bangkok, Thailand, 2023.
https://ieeexplore.ieee.org/document/10051063

S. Sobati-Moghadam, K.Javan, P. Vafadoost, A. Rajayian,"SS4IoT: Secure Search Over Encrypted Outsourced IoT Data", 8th Iranian Conference on Signal Processing and Intelligent Systems (ICSPIS 2022) 28-29 December,2022.
https://ieeexplore.ieee.org/document/10044013

A. Fayoumi, **S. Sobati-Moghadam**, A. Rajayian, , C. Oxlay, P.F. Montero, A. Dahmani, "The cybersecurity risks of using IoT and surveys of end-users and providers (IoT) within the domicilary care sector", International Conference on Smart Cities, Internet of Things and Applications, (SCIoT2022), September 14-15 –Ferdowsi University of Mashhad, Iran, 2022.
https://ieeexplore.ieee.org/document/9953634

A. Rajaiyan, **S. Sobati-Moghadam**, "Optimized Power Consumption Formula for Designing IoT-Based Systems ", International Conference on Distributed Computing and High Performance Computing (DCHPC2022), Iran, 2022.

https://ieeexplore.ieee.org/document/9732149

S. Sobati-Moghadam, ”Efficient information-theoretically secure schemes for cloud data outsourcing”, Journal of Cluster Computing **24** 3591–3606 (2021). https://link.springer.com/journal/10586/volumes-and-issues/24-4

S. Sobati-Moghadam, A. Fayoumi, P. Vafadoos, ”Pavan: A privacy-preserving system for DB-as-a-Service”, ICT Express 7(2): 259-264 (2021). https://doi.org/10.1016/j.icte.2020.11.003. https://www.sciencedirect.com/science/article/pii/S2405959520304859

S. Sobati-Moghadam, ”Lightweight Additive Homomorphic Schemes for Cloud Outsourcing Scenarios”, Journal of Distributed Computing and Systems, vol.2, No. 2, P.170-177, 2020.

S. Sobati Moghadam, A. Fayoumi, ”Toward Securing Cloud-Based Data Analytics: A Discussion on Current Solutions and Open Issues”, IEEE Access, vol.7, P.45632-45650, 2019. https://ieeexplore.ieee.org/document/8678751

S. Sobati-Moghadam, ”Privacy Preserving Data Outsourcing via Secure Order-Preserving Secret Splitting Scheme”, 30th International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD2018), Poster, Ecole Normale Supérieure de Lyon, Lyon, France, 2018.

S. Sobati-Moghadam, ” Order Preserving secret splitting for cloud computing ”, International conference on distributed computing and high performance computing, Qom, Iran, 2018.

S. Sobati-Moghadam, A. Fayoumi, ”Private Collaborative Business Benchmarking in the Cloud”, IEEE Computing Conference,London, UK, July 2018. https://link.springer.com/chapter/

S. Sobati-Moghadam, J. Darmont, G. Gavin, ”S4: A New Secure Scheme for Enforcing Privacy in Cloud Data Warehouses”, 7th International Conference on Information Systems and Technologies (ICIST 17), Dubai, UAE, March 2017. https://eric.univ-lyon2.fr/jdarmont/publications/

S. Sobati-Moghadam, G. Gavin, J. Darmont, ”A Secure Order-Preserving Indexing Scheme for Outsourced Data”, 50th IEEE International Carnahan Conference on Security Technology (ICCST 16), Orlando, USA, October 2016. https://ieeexplore.ieee.org/document/7815719

S. Sobati-Moghadam, ”A Secure Frequency Hiding Index for Encrypted Databases”, 10th Int. Conference on Emerging Security Information, Systems and Technologies (SECURWARE 2016), Nice, France, 2016. SECUREWARE2016

G. Gavin , **S. Sobati-Moghadam**, ”A SWHE based on factorization”, Interna-

tional Conference on Cryptology (AfricaCrypt 2016) (Fes, MA), 2016.

O. Grabova, **S. Sobati-Moghadam**, S. Chagheri , J. Darmont , "BI4people : le décisionnel pour tous", 10es journées francophones sur les Entrepôts de Données et l'Analyse en ligne (EDA 14), Vichy; RNTI, Vol. B-10, 155-158, Juin 2014 (démo),
https://hal.archives-ouvertes.fr/hal-01448376

Book Chapter
S. Sobati-Moghadam, Darmont J., Gavin G., "Enforcing Privacy in Cloud Databases " In: Bellatreche L., Chakravarthy S. (eds) Big Data Analytics and Knowledge Discovery. DaWaK 2017. Lecture Notes in Computer Science, vol 10440. Springer

S. Sobati-Moghadam, Fayoumi A. (2019) Private Collaborative Business Benchmarking in the Cloud. In: Arai K., Kapoor S., Bhatia R. (eds) Intelligent Computing. SAI 2018. Advances in Intelligent Systems and Computing, vol 857. Springer

Working Experience

11/2018-now	Head of Data Security Research Laboratory (SecLab), Hakim Sabzevari University
10/2018-now	Assistant Professor, Hakim Sabzevari University
09/2018–09/2019	Researcher, University of Lyon2, ERIC Laboratory, Research title: Security vs. Functionality and performance for BI (Business Intelligent) in the cloud
10/2017–05/2018	Lecturer, Hakim Sabzevari University, Sabzevar, Iran
06/2017–09/2017	PostDoc, University of Lyon2, ERIC Laboratory, Research title: Security vs. Functionality and performance in the cloud
06/2013–03/2017	PhD student, University of Lyon2, Lyon, France
09/2010–05/2013	Lecturer, Hakim Sabzevari University, Sabzevar, Iran
09/2010–06/2011	Invited lecturer, Beihagh University, Sabzevar, Iran (part-time)
09/2010–06/2011	Invited lecturer, Ebne-Yamin University, Sabzevar, Iran (part-time)

Projects

BI4People

> BI4people brings the power of OLAP interactive analysis to the largest possible audience, by implementing the data warehousing process in software-as-a-service mode. In this project, classical data warehousing stages still apply, but must be fully automated.(Colleagues: Pr. Jérôme Darmont, Oksana Grabove from Lon2 University, France) http://eric.univ-lyon2.fr/bi4people/valo.html

Secure DataMining

> Designing secure protocols for mining outsourced data in the cloud. The aim of this project is collaboratively data clustering without data owner participation. (Colleagues: Pr. Frans Coenen, Nawal Almutairi from Liverpool University, UK)

Big Data Analytics

> Cloud data analytics allows business and professionals realizing data analytics in supporting decision making. Several privacy-preserving techniques are proposed to guarantee the

privacy of sensitive business data in the cloud. (Colleague: Dr. Amjad Fayoumi from Lancaster University, UK)

Secure IoT

Secure IoT aims at developing novel secure protocols to enhance the security of IoT protocols. Lightweight cryptographic methods are proposed to support secure data computations and communications. (Colleague: Dr. Hosein Shafagh from ETH Zurich)

BAMA

The aim is designing a new social network for female researchers in Iran with the recommendation system. This project aims at providing a link between women with different expertise from universities and recherches centers in Iran. The aim is creating a community of female researchers to provide more facilities and opportunities in research and education. This project is supported by Council of Women in Sabzevar.

Researches as Principal Investigator

2010-2013 at Hakim Sabzevari University
- Penestaring the university web servers to find the vulnerabilities
- Cloud cube security model
- Security breaches in OSI network layers
- Attack graphs in network security
- IIS7 security challenges and issues
- Virtualization security

2018-2020 at Hakim Sabzevari University
- Business Process Modeling with security consideration
- MQTT security challenges and recommendations
- Big data analytic in a privacy-preserving manner in cloud outsourcing scenarios
- Lightweight cryptographic methods for cloud

Reviewing Activities

IEEE Journal of Transactions on Cloud Computing
IEEE Journal of Distributed and parallel Computing
IEEE access
PC Member for BigDataMAPS as a part of ADBIS 2018, 2-5 September 2018, Budapest.

Talks (excluding paper presentations)

"*Data Privacy and security in cloud outsourcing scenarios, solutions and challenges*", workshop in the 4th conference of technology, university and national development, Hakim Sabzevari University, (In Persian), 2018.

"*How securely search over encrypted data without leackage in the cloud?*", journée ERIC hors les mûrs, (In French), 2016.

"*Business Intelligence(BI) towards cloud computing, How enterprises and businesses securely outsource data in the cloud? *", Séminaires périodiques de labo ERIC, Lyon2, (In French), 2014.

Other talks
"*Ontology-based Description and Reasoning for Component-based Development on the Web*", academic seminars, INSA de Lyon, 2007.
"*Symbol Error Probabilities For General Cooperative Links in WSN*", a part of recherches in wireless sensor networks, LIRIS laboratory, 2006.

Teaching

Master

Advanced DataBases for International
European Master DMKM,Lyon, Secure Data Sharing

Bachelor

Cloud Computing, IoT, Data Security, Special Issues in Security, Internet engineering, Network, Network Security, Decision Suport Systems(DSS), PowerBI, Compiler design, Theory of automaton, Programming, Data Structure

Language Knowledge

Persian	native
French	fluent
English	fluent