



# Mahdi Daghmechi Firoozjaei

*Curriculum Vitæ (August 29, 2017)*

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## STATUS

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**PhD Candidate** 2014-present  
*Electrical and Computer Engineering*  
*Advisor: Professor Hyoungshick Kim*

in Department of Electrical and Computer Engineering, College of Information and Communication Engineering, Sungkyunkwan University, Suwon, Republic of Korea

## EDUCATION

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**M.Sc. Telecommunication-Cryptology** 2002-2005  
*Imam Hossein Comprehensive University, Tehran, Iran*  
Thesis: "Review Security Weaknesses of IPSec and Suggestions for Improving Them"  
Advisor: M. Saleh Esfahani (Imam Hossein Comprehensive University) / A. Yazdian Varjani (Tarbiat Modares University)

**B.Sc. Telecommunication Engineering** 1996-2000  
*Scientific-Applied Faculty of Post and Telecommunication, Tehran, Iran*  
Thesis: "Designing and Implementing an Announcement System for Public Phone Systems"

## RESEARCH INTERESTS

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- Cryptography; Network Security
- Users' Privacy Preserving in the Cellular Networks
- Secure Emergency Messaging Systems & False Requests Detecting
- Network Functions Virtualization- NFV; Security Issues
- Geo-encryption; Secure Location Based Services

## REFEREED PUBLICATIONS

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12. Mahdi Daghmehchi Firoozjaei, Sangmin Lee, and Hyounghshick Kim, “O<sup>2</sup>TR: Offline Off-the-Record (OTR) Messaging”, *WISA: The 18th World Conference on Information Security Applications 2017*, Jeju Island, Korea (2017).
11. Mahdi Daghmehchi Firoozjaei, Jaehoon (Paul) Jeong, Hoon Ko, and Hyounghshick Kim, “Security Challenges with Network Functions Virtualization”, *ELSEVIER- Future Generation Computer Systems 67 (Feb 2017)*, 315-324 (2017).
10. Mahdi Daghmehchi Firoozjaei, Jaegwan Yu, Hyounghshick Choi, and Hyounghshick Kim, “Privacy-Preserving Nearest Neighbor Queries Using Geographical Features of Cellular Networks”, *ELSEVIER- Computer Communications 98 (Jan 2017)*, 11-19 (2017).
9. Mahdi Daghmehchi Firoozjaei, Minchang Kim, and Hyounghshick Kim, “How Practical is OTR?”, *CISC-S'16: Conference on Information Security and Cryptography 2016*, Busan, Korea (2016).
8. Mahdi Daghmehchi Firoozjaei, Jaewoo Park, and Hyounghshick Kim, “Detecting False Emergency Requests Using Callers’ Reporting Behaviors and Locations”, *DC2-2016: The 3rd International Workshop on Device Centric in conjunction with IEEE AINA*, Crans-Montana, Switzerland (2016).
7. Jinyong Kim, Mahdi Daghmehchi, Jaehoon (Paul) Jeong, Hyounghshick Kim, and Jung-Soo Park, “SDN-based Security Services using Interface to Network Security Functions”, *ICTC: The 6th International Conference on ICT Convergence*, Jeju Island, Korea (2015).
6. Mahdi Daghmehchi Firoozjaei, Jaegwan Yu, and Hyounghshick Kim, “Privacy Preserving Nearest Neighbor Search based on Topologies in Cellular Networks”, *DC2: The 2nd Workshop on Device Centric Cloud held in conjunction with IEEE AINA*, Gwangju, Korea (2015). (Selected as “best paper”)
5. Mahdi Daghmehchi Firoozjaei and Javad Vahidi, “Implementing Geo-encryption in GSM cellular Network”, *COMM 2012: 9th International Conference on Communication*, Bucharest, Romania (2012).
4. Mahdi Daghmehchi Firoozjaei and Ali Yazdian, “Evaluating Geo-encryption application in a cellular network, case study using GSM”, *ISCEE 2011: 14th Iranian Student Conference on Electrical Engineering (in Persian)*, Kermanshah, Iran (2011).
3. Mahdi Daghmehchi Firoozjaei and Ali Yazdian, “Improving IPsec Security Weaknesses in the decryption key forgery situation”, *16th Annual Computer Society of Iran Computer Conference (in Persian)*, Tehran, Iran (2011).
2. Mahdi Daghmehchi Firoozjaei, “Using MS location information in GSM encryption key generation, Study case: Geo-Encryption algorithm”, *National Conference on Information and Communication Security (in Persian)*, Ahvaz, Iran (2010).
1. Mahdi Daghmehchi Firoozjaei, “Comparison between VPN solutions: MPLS, SSL, and IPsec”, *7th Computer Engineering Student Conference (in Persian)*, Tehran, Iran (2005).

## **AWARDS**

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- **The 2nd Prize for the Superior Research Award**, College of Information and Communication Engineering, Sungkyunkwan University, August 3th 2017
- **The Best Paper Award**, DC2: The 2nd Workshop on Device Centric Cloud, 2015
- **The SKKU Scholarship for Outstanding International Students**, Sungkyunkwan University, 2014-2018

## **PROFESSIONAL SOCIETIES AND SERVICE**

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- Reviewer of:
  - Telecommunication Systems Journal- Springer
  - Computer & Electrical Engineering Journal- ELSEVIER
  - COMM2014, 10th International Conference on Communications
- Membership:
  - Iranian Society of Cryptology- ISC

## **TECHNICAL/SPECIAL SKILLS**

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- **Programming:** C/C++, Python, and Pascal
- **Simulation and Math package:** Matlab
- **Languages:** English, Arabic, and Persian (native language)