

Somayeh Abedian

Somayeh.Abedian@dhp.lbg.ac.at

[linkedin.com/in/somayeh-abedian-974ba227](https://www.linkedin.com/in/somayeh-abedian-974ba227)

Medical/Health Informatics Specialist, Computer Engineer, and Information Technology Expert with over 17 years of experience. Proficient in working independently and dedicated to delivering high-quality service across all projects. Expertise includes health informatics standards, health information systems data models, health systems functional evaluation, and electronic health record issues. A motivated professional who consistently excels in challenging environments.

EDUCATION

- *PhD in IT management, business intelligence at Department of Information Technology Management (ITM), IAU University, Qazvin, Iran 2019-2023, GPA: 19.06 out of 20.*
- *Master of Information Technology Management (ITM), Advanced Information Systems at Allameh Tabatabaie University, Tehran, Iran, February 3, 2013, GPA: 16.99 out of 20*
- *Bachelor of Computer Software Engineering, 2008, GPA:16.03 out of 20*
- *Bachelor of English Language Translation – 2012, GPA:15 out of 20*
- *Associate of Computer Software, 2006, GPA:17.09 out of 20*
- *Diploma in Mathematics and Physics,2002, GPA:18.30 out of 20*

PROFESSIONAL EXPERIENCE

- *Post-doc researcher in Health Informatics at Ludwig Boltzmann Institute for Digital Health and Prevention, Salzburg, Austria, Jan 2024-Present*
- *Adjunct Faculty Member, Institute of Health Policy, Management and Evaluation, University of Toronto, October 2023-Present*

ICT Management

- *Deputy, IT & Statistic Center, Iranian Ministry of Health and Medical Education, 2022-2023*
- *Head of Communication and Monitoring office for Pre-Hospital Emergency Operations at National Emergency Medical Services Organization (EMS) -2021*
- *Chief of Information and Communication Technology Center, National Emergency Medical Services Organization (EMS), MOHME, 2018-2021*
- *Head of Standard, Monitoring & Evaluation Office, ICT, and Statistics Management Center of MOHME, 2008-2018*

Health Information Systems Supervisory

- *Head of Supervision, Licensing and Regulation Department, ICT Center of MOHME, 2022- 2023*
- *Responsible for assessment and accreditation, ICT Center of MOHME, 2008-2018*
- *Senior officer for evaluation and monitoring of health systems in the implementation of Iranian Electronic Health Record (Iranian EHR is based on openEHR Infrastructure, <https://openehr.org>), 2008-2019*

International Activity

- *Secretary of Corresponding Committee of ISO TC 215(Technical Committee of Health Informatics), 2022- Dec 2023*
- *Representative of the Information Technology Center of the Ministry of Health in meetings and workshops of the World Health Organization in Iran regarding health information management since 2013*
- *Reviewer and colleague member of some of Health Informatics Conferences such as Medical Informatics Europe International Annual Conference (MIE), 2014- Present*

- National Technical Expert, ISO TC 215(Technical Committee of Health Informatics), **2013-Present**
- National Expert introduced by the National Standard Organization of Iran to the World Health Informatics Technical Committee TC215, Working Group 6, Pharmacy and medicines business, **2013- Present**

Main Activities in the Health Informatics

2008 – Present

- Temporary Researcher, at Iran Academy of Medical Sciences, starting from 06/2022 – present: Actively participated in research projects at the Iran Academy of Medical Sciences, with a specific focus on e-health topics such as privacy and ethics. Additionally, contributed to a research project aimed at developing a solution to protect the country's digital health infrastructure from cyber-attacks, in alignment with national strategies for Passive Defense.
- Member of the technical and executive team for the development of the Iranian Integrated Electronic Health Record (locally called SEPAS): In this large project, we analyzed and structured more than 20 information models in the electronic health record and developed information web services for the exchange of systems used in health centers based on the electronic health record architecture (openEHR).
- Chair of the National Committee for Organizing Hospital Information Systems in Iran: There are more than 35 kinds of hospital information systems developed by various companies.
- Chair of the National Evaluation Committee in information technology of medical sciences universities
- Member of the corresponding technical committee of TC215 (ISO Organization) at the National Standard Organization of Iran (ISIRI)
- Member of the DEVCO ISIRI Policy Committee / (Developing Countries Affairs) at the National Standard Organization of Iran (ISIRI)
- Member of the Medical Information Technology and Robotics Evaluation Committee, Deputy of Research and Technology, Ministry of Health, and Medical Education
- Member of the technical committee for compiling national health justice indicators package
- Member of the National Committee for Organizing and Supervising the Receipt of Revenues (CSRR) from the Health and Medical Education Sector
- Responsible for developing and implementing a national system for hospital information systems functional evaluation.
- Information technology consultant, Imam Khomeini Hospital, Tehran
- Information technology consultant, Milad Hospital, Tehran
- National committee secretary for health system reform plan in the field of information technology
- Member of the national working group for the health information systems strategic planning with using of the Health Assessment Network (HMN) framework
- Member of the national committee for preparation of the strategic document on biological defense in the Ministry of Health (MOHME)
- Member of the National Coordinating Working Group for implementation of the information technology monitoring system at the Ministry of Information Technology and Communications (ICT)
- Agent of the Ministry of Health (MOHME) in the World Summit on Information Society (WSIS), Ministry of Communications and Information Technology
- Member of the scientific/executive committee for several specialized conferences in the field of health information technology and mobile health
- Technical supervision over several national projects in the field of health information technology, including:

- Technical supervision of the implementation of the electronic prescription project in Iran
 - Architectural design of primary care information system
 - Comprehensive planning on e-health and e-insurance in Iran (Employer: Ministry of Communications and Information Technology)
 - Design of an intelligent system for validation of electronic hospital documents sent to the National EHR based on the rules of insurance organizations.
 - Pilot implementation of national electronic health records in hospital information systems in 30 hospitals and with collaboration of 3 products
 - Consulting and monitoring services for the implementation of FDO organization information systems
 - Design and development of a national family physician management system
- Member of the editing group - ISIRI 14142 and ISIRI 14199

PUBLICATION

Books

- The quality of Iranian Electronic Health Record data in Healthcare Services Information Message, (Somayeh Abedian and the group of authors), 2018, ISBN: 5-0148-00-622-978
- Technical Guideline on Electronic Information Messages: Data Interchange from Pre-Hospital Integrated System to National EHR, 2019
- Program to reduce the payment of patients admitted to public hospitals, Ministry of Health, and Medical Education, (Somayeh Abedian and the group of authors), 2016, ISBN: 5-08-6570-964-978
- Healthcare Services Information Message - Data Interchange Manual of Iranian Electronic Health Record System for Integrated Care, 2015, ISBN: 978-964-96120-5-8
- Functional Evaluation of Hospital Information Systems in IRAN, 2013, ISBN: 978-964-96120-4-1

Articles

1. Abedian S, Biglarkhani A, Azami Ghadikolaei A, Barahmand M. Development and Implementation of an Integrated Standard e-Prescription Model in Alignment with Iranian National EHR. *Stud Health Technol Inform.* 2024 May 23;314:139-143. doi: 10.3233/SHTI240077. PMID: 38785020.
2. Abedian S, Riazi H. E-Health: Security, Privacy, and Ethics Requirements from a National Perspective in I. R. Iran. *Stud Health Technol Inform.* 2024 May 23;314:147-148. doi: 10.3233/SHTI240079. PMID: 38785021.
3. Riazi H, Abedian S, Moghaddasi H. Ethical and Legal Aspects of Implementing Electronic Health Records in Iran. *IJMEHM* 2023; 16 (S1): 5 URL: <http://ijme.tums.ac.ir/article-1-6660-en.html>
4. Abedian S, Sanaei M, Rahchamani A. Online hospital management system: a new approach in real-time management of hospital beds, from admission to discharge. *Iran J Health Insur.* 2023;5(4):292-301
5. Abedian, S., Sanaei, M. R., & RahChamani, A. (2023). A National Decentralized Approach to Online Monitoring System from Admission and Triage to Discharge and Bed Management. *International Journal of Hospital Research*, 12(1), -. doi: LBL_COMMENTED_AT/ijhr.2023.393160.1537
6. Abedian S, Kolivand P, Lornejad HR. Perform the Regulatory Process: A National Approach for Evaluation of the Pre-Hospital Emergency Information System in I.R. Iran. *Stud Health Technol Inform.* 2022 Jan 14; 289:469-472. doi: 10.3233/SHTI210959. PMID: 35062192.
7. Discovering Rules from a National Exam Repository: A Use Case for Data Analysis from Iranian Medical Schools Entry Exam. Hanieh Zehtab Hashemi, Somayeh Abedian, Parvane Parvasideh, Zahra Bahrevar, Sina Madani, 2022; *Studies in Health Technology and Informatics*, Pahe: 796 – 800. doi:10.3233/SHTI220586.
8. Abedian S, Kolivand P, Lornejad HR. Toward an Agile System: Iranian Information System for Covid-19-Affected Patients Data Collection from Iranian Hospitals. *Stud Health Technol Inform.* 2021 Oct 27; 285:173-178. doi: 10.3233/SHTI210593. PMID: 34734870.

9. Somayeh Abedian, Pirhossein Kolivand, Hamid Reza Lornejad, Amin Karampour, Ebrahim Keshavarz Safari. Save Lives: The Application of Geolocation-Awareness Service in Iranian Pre-hospital EMS Information Management. World Academy of Science, Engineering and Technology, International Journal of Health, and Medical Engineering. Nov 1, 2021
10. Abedian S, Bitaraf E, Askari M. Advantages of a Web-Based Real-Time Bed-Management System for Hospital Admission Monitoring in Iran. Stud Health Technol Inform. 2018; 247:536-540. PMID: 29678018.
11. Functional assessment model for hospital information systems in I.R. Iran, 2015, Studies in health technology and informatics 01/2015; 210:1013-5. doi:10.3233/978-1-61499-512-8-1013
12. Abedian S, Kazemi H, Riazi H, Bitaraf E. Cross hospital bed management system. Stud Health Technol Inform. 2014; 205:126-30. PMID: 25160159.
13. Mobile-based health development strategies in Iran based on the study of leading countries in the field of World Health Organization, 2014, Electronic Health and ICT Applications in Iranian Medicine - Iranian Medical Engineering Association Conference.
14. Iranian EHR, Definitions, Concepts and Standards, 2014, Telemedicine Conference, Medical Council Organization and Virtual Electronic Health Research Institute of Amir Kabir University of Technology.
15. Standard data models for data exchange of medical images and electronic health records, 2014, The 5th Iranian Imaging Informatics Conference.
16. Identification of m-Health Services on the Pioneering Countries, 2012, International Conference on e-Health (The Islamic Republic of Iran Medical Council), Olympic Hotel, Tehran, Iran.
17. Investigating the distribution of hospital information systems in the Iranian hospitals, 2010, First International Congress of Hospital Technology Management.
18. Hospital Information System Evaluation Model in Iran, 2010, First International Congress of Hospital Technology Management.

CONFERENCE and WORKSHOP

- Workshop and panel management on Iranian electronic health records. The first international conference on electronic health by the Iranian Medical Council Organization, Tehran Olympic Hotel– Lecture, 2012.
- Electronic Health Record System, Architecture and Standards Workshop, Ministry of Health, and Medical Education - Holding and lecturing, Annual conference since 2010.
- Research Management Seminar on "Needs Assessment, Exploitation, and Knowledge Interpretation in Beneficial, Applied and Developmental Research", Research Institute of Endocrinology and Metabolism, Shahid Beheshti University of Medical Sciences - Holding and Lecture.
- Specialized workshop on electronic health records, Tehran University of Medical Sciences – Lecture.
- Providing solutions for implementing electronic health records and the required infrastructure, the 17th Iran Health International Exhibition – Lecture.
- "Electronic Health Record System", The fourth national workshop - Holding and lecturing.
- The information technology situation in the country's hospitals with the focus on HIS, the 17th Iran Health International Exhibition – Lecture.
- Introduction to Comprehensive Hospital Information System (HIS), Third Exhibition of New Technologies and Medical Equipment – Lecture.
- Iranian e-Health Record Architecture, Fourth National Conference on Hospital Management and its role in implementing the health system reform – Lecture.
- Editor of Iranian Electronic Health Record-Journal in two editions, 2014.

TEACHING

- Course Title: " Health systems standards in Iran", Tarbiat Modarres University, School of Systems and Industrial Engineering, Master of Health Systems Engineering, Fall- 2015, Spring- 2016.
- Course Title: "Health Information Systems", Shahid Beheshti University of Medical Sciences, School of Paramedical Sciences, Bachelor of Health Information Technology Management, Fall- 2012.

- Course Title: " Advanced Information Systems ", Shahid Beheshti University of Medical Sciences, School of Paramedical Sciences, Bachelor of Health Information Technology Management, Fall- 2012.
- Course Title: " OPEN EHR Standard in EHR development", Shahid Beheshti University of Medical Sciences, School of Paramedical Sciences, Medical Informatics, Master of Medical Informatics, Spring-2013.

AWARDS

Appreciation letter from:

- Member of Parliament and Chairman of the Electronic Health Committee of the Health Commission for efforts to develop electronic health in Iran- 2023.
- Chair of the Statistics and Information Technology Center of Ministry of Health for effective attempts in the field of statistics and health information technology - 2023.
- Minister deputy director of Management and Resources Development of the Ministry of Health, and Medical Education for efforts in the development of e-health in Iran- 2022.
- Chair of the Statistics and Information Technology Center of Ministry of Health for development of Health Information Systems evaluation process - 2022.
- Member of Parliament and Chairman of the Electronic Health Committee of the Health Commission for effective efforts in improving e-health services in Iran- 2022.
- Minister deputy and head of the National EMS Organization for upgrading information technology structures in pre-hospital EMS- 2018, 2020, 2021.
- Chair of the Statistics and Information Technology Center of Ministry of Health for development of e-Health services- 2016.
- Health deputy of minister of Health and Medical Education for membership in health information management committee- 2015
- General director of Medical Equipment for participating in the specialized panels of Iran Health International Exhibition -2015
- Minister advisor and chair of the Statistics and Information Technology Office of MOHME for effective attempts in the field of statistics and information technology of the MOHME- 2015
- Minister advisor and head of the Statistics and Information Technology Office of MOHME for holding the fourth national workshop on the Electronic Health Record System of Iran - 2015
- General director of Medical Equipment for organizing several specialized workshops on medical equipment and the third exhibition of new technologies and medical equipment - 2015
- Health deputy minister and the head of the Statistics and Information Technology Office of MOHME for attempts in the health system reform planning- 2014
- General director of the Technology Evaluation, Standardization and Health Tariff office of the Ministry of Health and Medical Education for participating in the evaluation and standardization projects of health deputy - 2014
- Minister of Health and Medical Education of Iran for Iranian health coding system and national electronic health record development - 2013
- Deputy minister of Development and Human Resources Management and the head of the National Passive Defense Organization for participating in compiling of the strategic document on bio-defense in MOHME- 2013
- General director of the Office of Standard Development of the Organization for Standardization and Industrial Research of Iran for participation in the corresponding technical committee "Health Informatics" and membership in 4 specialized working groups- 2013

- General director of Medical Equipment for participating and organizing of specialized panels in the 17th Iran Health International Exhibition and manage a workshop on electronic health record implementation strategies- 2013
- Minister advisor and head of the Statistics and Information Technology Office of MOHME for the functional evaluation of hospital information systems and HIS standardization- 2012
- Standardization and Promotion deputy of the National Standards Organization of Iran (ISIRI) for participation in the international standards development- 2012
- Head of the National Medical Council Organization for participating in holding the International Conference on Electronic Health and organizing the specialized workshops- 2012
- President of Jiroft University of Medical Sciences for attempts in advancing the goals and plans of Jiroft University- 2012
- Head of the Protection Center of MOHME and chair of the Statistics and Information Technology Center for active participation and leadership of the National Committee for Functional Evaluation in information technology of Medical Universities- 2012
- Chair of Statistics and Information Technology Center for the attempts and positive effects in the Statistics and Information Technology Office of MOHME- 2012
- Chair of the Statistics and Information Technology Management Center of MOHME for MOHME booth management in the 25th International Electronics, Computer & E-Commerce (ELECOMP) Exhibition- 2012
- Minister of Health and Medical Education of Iran for participation in compiling the national health system reform plan- 2011
- General Director of Standard Development office of National Standard Organization of Iran (ISIRI) for membership in TC215 corresponding technical committee- 2011
- Chairman of the Policy Council of the Ministry of Health and Medical Education for compiling the indicators of justice in health- 2011
- General director of Human Resources and Support of MOHME and director of Human Resource of Tehran University of Medical Sciences for organizing a workshop on "Electronic Health Record" at the Medical Science University of Tehran- 2011
- Minister's Advisor and Head of the Statistics and Information Technology Center of MOHME for attempts in the e-health domain and preparing the infrastructure of national EHR
- Head of Statistics and Information Technology Management Center of MOHME for participating in setting up a booth for the Ministry of Health in the International Digital Media Exhibition, Tehran- 2009

LANGUAGE SKILL

- *Persian: Native*
- *English: Professional Working Proficiency*
- *Germany: Basic*
- *Arabic: Basic*