In the name of God

TOKTAM KHATIBI
(*Scientific Curriculum Vitae*)

Assistant professor, Faculty of Industrial and Systems Engineering, Tarbiat Modares University. Phone: +982182883913
Email: toktam.khatibi@modares.ac.ir , toktam.khatibi@gmail.com

Education:

1. Ph.D.

Ph.D. in Industrial Engineering, Tarbiat Modares University, 2009- 2014, GPA: 18.51/20.

Supervisor: Dr. Mohammad Mehdi Sepehri.

Advisors: Dr. Pejman Shadpour, Dr. Seyyed Hesamoddin Zegordi

Dissertation title: *"Interrupt analysis in laparoscopic surgery via speech, text and video processing"*. Grade: 20/20.

2. M.Sc.

M.Sc., Socio-economical (industrial) Engineering, Tarbiat Modares University, 2006-2008. GPA: 18.43/20 - The first rank in the class (2007-2009)

Supervisor: Dr. Mohammad Mehdi Sepehri.

Thesis title: "*Opinion mining (sentimental text mining) for Persian documents*"

3. B.Sc.

B.Sc., Computer Engineering, Software Engineering, Sharif university of technology, 1997- 2002.

B.Sc. Project title: "*Web-based multimedia java trainer*"

Awards
- Top graduate as qualified by Iran National Elites Foundation
- The first rank in the M.Sc. education in the class, 2007-2009.
- Bronze medal for mathematical Olympia in Iran, 1995.
- 495th grade in the overall universities entrance examination in Iran, 1997.

Research focus
- Health care Systems Engineering
- Data analytics (including complex data and big data) with an emphasis on health care
- Machine Learning and Deep Learning
- Signal processing (Images and videos) specially for medical image analysis
- Process mining including process discovery and enhancement
- Pattern recognition (action and gesture recognition)
- Decision making in health care
- Industrial engineering for health care applications
- Crowdsourcing
- Knowledge acquisition and representation (ontology engineering)

Publications

1. Academic book

Ontologies: Methodologies, Tools and Languages, **Tarbiat modares university press**, 2011, (with Asoushe Abbas, Mehrasa Shohreh, Khakshour Saadat Parisa).

2. Book Chapters

1. New Features Extracted From Renal Stone NCCT Images to Predict Retreatment After Shockwave Lithotripsy (SWL), In: Elham Akhondzadeh Noughabi, Bijan Rahemi, Amir Albadvi and Behrooz H. Far.(ed.), **Handbook of Research on Data Science for Effective Healthcare Practice and Administration**, IGI Global, 2018, 296-316, (with Mohammad Mehdi Sepehri, Mohammad Javad Soleimani and Pejman Shadpour).

2. Applications of Image Processing in Laparoscopic Surgeries: An Overview, In: Elham Akhondzadeh Noughabi, Bijan Rahemi, Amir Albadvi and Behrooz H. Far.(ed.), **Handbook of Research on Data Science for Effective Healthcare Practice and Administration**, IGI Global, 2018, 317-344, (with Mohammad Mehdi Sepehri, Pejman Shadpour and Seyyed Hesamoddin Zegordi).

3. Journal papers

1. Mobile GIS based monitoring Asthma attacks based on environmental factors, **Journal of Cleaner Production**, 179, 417-428, (with R. Khasha, Mohammad Mehdi Sepehri, S.A. Mahdavian).

2. Extraction and Comparison of the Discharge Process in a Teaching Hospital, **International Journal of Hospital Research**, 2017, 6 (1):-, (with Nasim Nejad Jaefari)

3. Designing an RFID-enabled wasteless system for hemovigilance . Sci J Blood Transfus Organ. 2016; 13 (3) :185-196, (with Marjan Soleymani, Mohammad Mehdi Sepehri, Karim Shams Asenjan)

4. A knowledge map for hospital performance concept: Extraction and analysis, **Iranian journal of public health**, 2016, 45(7): 843–854, (With Nader Markazi-Moghaddam, Mohammad Arab, Hamid Ravaghi, Arash Rashidian and Sanaz Zargar Balaei Jame)

5. Designing a Cost Based Systematic Framework For Heart STEMI Patients by pPCI and Thrombolytic Treatments, Hospital, 2015, 14 (3): 9-21, (with Masoumeh Saeedian, Mohammad Mehdi Sepehri and Hassan Aghajani)

6. Percutaneous Coronary Intervention (PCI) Knowledge Map Using Fuzzy Cognitive Map, **Journal of** Management of Technology Development, 2015, 2 (1): 79-106, (with Samira Korani and Mohammad Mehdi Sepehri)

7. Data Mining Approach for Prediction of Erythropoietin Drug Dosage in Hemodialysis Patient, **Journal of Mazandaran University of Medical Sciences,** 2015, 25 (129) :26-35, (with Akram Tavousi, Mohammad Mehdi Sepehri and Tahereh Malakoutian)

8. Prioritizing interrupt causes in minimally-invasive surgeries based on identifying causal relations between interrupt causes, **Journal of industrial engineering (JIENG)** (indexed in ISC), 2015, 49(1): 33-43, (with Mohammad Mehdi Sepehri, Pejman Shadpour and Seyyed Hesamoddin Zegordi).

9. A novel unsupervised approach for minimally-invasive video segmentation, **Journal of medical signals and sensors** (indexed in ISI, Medline and ISC), 2014, 4 (1): 53-71, (with Mohammad Mehdi Sepehri and Pejman Shadpour).

10. Accurate detection of laparoscopic surgery instrument using a novel image segmentation algorithm, **International journal of hospital research** (indexed in ISC), 2013, 2 (4): 163-170, (with Mohammad Mehdi Sepehri and Pejman Shadpour).

11. Risk management based approach for identification and ranking of surgical cancellation factors using Fuzzy FMEA, **International journal of hospital research** (indexed in ISC), 2013, 2(1): 17-24, (with Roghiyeh Khasha and Mohammad Mehdi Sepehri).

12. Fuzzy FMEA application to improve workflow in operating rooms, **Journal of industrial engineering (JIENG)** (indexed in ISC), 2013, 47 (2): 135-147, (with Roghiyeh Khasha, Mohammad Mehdi Sepehri and Alireza Soroush).

4. International conference papers

A framework for monitoring patients in the recovery room using Kinect, 11th international industrial engineering conference (IIEC 2015), Iran, 2015, (with Mohammad Mehdi Sepehri and Hamed Mollaei)

0-1 Mathematical programming models for laparoscopic activity recognition, 9th international industrial engineering conference (IIEC 2013), Iran, 2013, (with Mohammad Mehdi Sepehri and Pejman Shadpour).

Laparoscopic instrument detection with a new image segmentation algorithm (GNSTIS), The first international conference on Electronic health, Iran, 2012, (with Mohammad Mehdi Sepehri and Pejman,Shadpour).

Time series representation and clustering with directional distance based features (DDBF), 9th international conference on electronics, computer and computation (ICECCO), Turkey, 2012, (with Mohammad Mehdi Sepehri and Pejman Shadpour).

Design a comprehensive framework for evaluationg the readiness of starting surgical operation based on surgical cancellation reduction, The first international conference on Electronic health, Iran, 2012, (with Roghiyeh Khasha and Mohammad Mehdi Sepehri).

5. National conference papers

Devising Novel Algorithms for Information Extraction from Live Laparoscopic Imaging, 5th Iranian Endourology & Urolaparoscopy Society Congress (IEUS), 2012, (with Pejman Shadpour and Mohammad Mehdi Sepehri).

Enhancing the Process of Image Recording Through Intelligent Analysis of Motion in the Camera and Laparoscopic Instruments, 5th Iranian Endourology & Urolaparoscopy Society Congress (IEUS), 2012, (with Shadpour Pejman and Mohammad Mehdi Sepehri).

Teaching experiences

Clinical Data mining, Tarbiat Modares University, Industrial and Systems Engineering Department.

Data Mining and Knowledge Discovery, Tarbiat Modares University, Industrial and Systems Engineering Department.

Artificial Neural Networks and Intelligent Systems in Medicine, Medical Informatics Department, School of Health management and Information Sciences, Iran University of Medical Sciences.

Crowdsourcing and Crowd Activities, Tarbiat Modares University, Industrial and Systems Engineering Department.

Information Technology in Healthcare, Tarbiat Modares University, Industrial and Systems Engineering Department.

Process mining and Workflow Modeling in Health, Medical Informatics Department, School of Health management and Information Sciences, Iran University Of Medical Sciences.

System Engineering- Project control and Information Technology, School of Health management and Information Sciences, Iran University Of Medical Sciences.

Software Engineering, Tarbiat Modares Tarbiat Modares University, Industrial and Systems Engineering Department.

Data Structures and Algorithms, Tarbiat Modares University, Industrial and Systems Engineering Department.