Ashkan Tashk's Curriculum Vitae

• INTRODUCTION TEXT

I am a researcher passionate about machine learning, applied AI, and data science. I have a strong background in digital image and signal processing in different fields including biomedical and analytical applications. I hold a Ph.D. in Electrical engineering, with numerous publications in international journals. I've worked on several national and international projects, including a six-month internship at IPE, KIT, Germany, where I developed software for 3D image segmentation using USCT technology. I also have experience as a senior researcher in digital image processing and a telecommunication expert at Fars Regional Power Company, with expertise in monitoring power electric dispatching signals transmitting between power stations including Vestas's wind turbines. My research work at KU was the development of a novel algorithm—Multi-Imputation Partial Least Squares 2 (MIPLS2)—for multivariate data analysis to handle diverse types of missing values (MVs) in large-scale foodomics and metabolomics datasets, including labile measurements, using robust spectral data such as H^{1}NMR, NIR, and FTIR in collaboration with FOSS Analytics A/P and the Departments of Computer Science (DIKU) and Food Science at the University of Copenhagen (KU). I am currently a postdoc at CogSys section, DTU Compute, DTU, Copenhagen, Denmark.

• WORK EXPERIENCE AND EMPLOYMENT

◉ **Dec. 2024 – Present**	Postdoctoral Researcher at Cognitive Systems, DTU Compute, Technical University of Denmark (DTU), Copenhagen, Denmark
◉ **Feb. 2023 – Nov. 2024**	Postdoctoral Researcher at the Department of Food Science, University of Copenhagen (KU), Copenhagen, Denmark.
◉ **Apr. 2019-Jan. 2023**	Postdoctoral Researcher at Unit of Applied AI and Data Science (AID), The Maersk Mc-Kinney Moller Institute (MMMI), University of Southern Denmark (SDU), Odense, Denmark.
◉ **Dec. 2022**	Member of the assessment committee of a postdoc position at The Arctic University of Norway (UiT) with contract Number NO9476940568583.
◉ **Feb. 2017-Mar. 2019**	Telecommunication expert at Fars Regional Electricity Company (FREC), Shiraz, Iran.
◉ **Nov.2014-Apr. 2015**	Internship project entitled "*Segmentation of 3D Ultrasound Computer Tomography Images*" at Institute for Data Processing and Electronics (IPE), Karlsruhe University of Technology (KIT), Karlsruhe, Germany.

• EDUCATION HISTORY   2002-PRESENT

◉ **2011-2015**	Shiraz University of Technology, Shiraz, Iran **Ph.D.:** Department of Electronic & Electrical Engineering, Telecommunications Systems **GPA: 18.18/20 (As the 1st rank Student among the same level M.Sc. Students)** **Ph. D. Thesis Title: "**Automatic Mitosis Detection Using Breast Cancer Histopathological Slide Images**"**
◉ **2007-2009**	Shiraz University of Technology, Shiraz, Iran **M.Sc.:** Department of Electronic & Electrical Engineering, Telecommunications Systems **GPA: 18.28/20 (As the 1st rank Student among the same level M.Sc. Students)** **M.Sc. Thesis Title: "**Fingerprint Coarse Ridge Orientation Estimation Smoothing**"**
◉ **2002-2006**	Shiraz University, Electrical Engineering Department **B.Sc.:** Electrical Engineering, Telecommunications **GPA: 16.31/20** **B.Sc. Project title:** "Design and Manufacturing a Prototype Sunlight Tracking Platform".

• ACADEMIC POSITIONS AND TEACHING EXPERIENCES

◉ **Fall 2025**	Co-teaching of a Master/Bachelor course titled "UX Design Prototyping," (course number 02810), 5 ECTS, DTU Compute, DTU, Copenhagen, Denmark.
◉ **Winter 2024**	Co-teaching of a Master/Bachelor course titled "User Experience Engineering," (Course Number 02266), 5 ECTS, DTU Compute, DTU, Copenhagen, Denmark.
◉ **Sep. 12-Nov. 15, 2023**	Accomplishing an online course "Science Communication" offered by the Royal Danish Academy of Science and Letters (Videnskabernes Selskab), sponsored by the NovoNordisk and Carlsberg Foundations.

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Website: https://ashkantashk.github.io/

◉ **Sep. 12-Nov. 15, 2023**	Passing the workshop "Responsible Conduct of Research (RCR): A case-based workshop for postdocs and assistant professors" at the University of Copenhagen (KU).
◉ **June 9, 2023**	Teaching the course "Expert in Teams (EiT)" with 10 ECTS for two semesters at the University of Southern Denmark (SDU).
◉ **Fall 2020 - Fall 2021**	Teaching assistant of the course "Principal Statistics" with 5 ECTS, at the University of Southern Denmark (SDU).
◉ **Fall 2020**	Teaching Courses such as Electrical Circuits, Microprocessors, Signals and systems, Numerical Analysis, MATLAB programming, etc, at Iranian Academic universities and institutions.
◉ **2008 - 2017**	Teaching Assistant for Courses such as Stochastic Processes, Digital Signal Processing (DSP), etc at Shiraz University of Technology and Shiraz University.
◉ **2013 - 2015**	Session Chair at 8th International Conference of Advanced Computer Science & Information Technology (ACSIT2020), Copenhagen, Denmark.
◉ **Jul. 2020**	Chair of Artificial Intelligence session at 2019 International Conference on Control, Artificial Intelligence, Robotics & Optimization (ICCAIRO2019), Athens, Greece.
◉ **Dec. 2019**	Session Chair at 8th IEEE Control and System Graduate Research Colloquium (ICSGRC2017), Shah Alam, Malaysia.
◉ **Aug. 2017**	Session Chair at the 11th IEEE Cybermatics Congress and 20th IEEE International Conference on Green Computing and Communication (GreenCom2024), Copenhagen, Denmark.
◉ **Aug. 2024**	Publishing several online courses in the Persian language with the following internet link addresses:
◉ **2008 - 2020**	• https://faradars.org/courses/fvlng98101-introduction-to-danish-language • http://faradars.org/courses/fvplc9306-introduction-omron-and-keyence-plcs-video-tutorial • http://faradars.org/courses/fvmth102-numerical-analysis • http://faradars.org/courses/fvssa9408-analysis-of-signals-and-systems • http://faradars.org/courses/fvssa9511-digital-and-analog-telecommunication
	Holding workshop entitled "Introduction to 3D USCT Imagery and Its Application for Breast Cancer Diagnosis" at Shiraz University (ICEE2016), Shiraz, Iran.
◉ **May 2016**	Holding workshop entitled "Introduction to USCT Imagery and Its Application for Breast Cancer Diagnosis" at Shahid Beheshti University (MVIP2015), Tehran, Iran.
◉ **Apr. 2015**	Presenting a lecture entitled "Automatic Mitosis Detection Using Breast Cancer Histopathology Slide Image: Challenges and Solutions" at Centre for Vision, Speech, and Signal Processing (CVSSP), University of Surrey (UniS), Guildford, Surrey, UK.
◉ **Mar. 11, 2015**	Holding PLC workshops at: Shiraz University of Technology (2012), Azad University of Marvdasht on (29/11/2011), Pasargad Private Institute of Education, (27/05/2010), Azad University of Gerash (06/11/2009).
◉ **2009 -2012**	Assistant instructor at Shiraz University and Shiraz University of Technology, teaching assistant and lecturer at the virtual university of Shiraz, Shiraz, Iran.
◉ **Sep. 2008- Feb. 2017**	

- ## KEY PROFESSIONAL AND TECHNICAL SKILLS

- Programming language:
• Python and its deep learning frameworks such as TensorFlow, Keras, PyTorch, and Jax,
• MATLAB and Simulink, R (RStudio), C/C++,
• Ladder diagram/Statement List Programming of Omron/Siemens/Keyence PLCs,
• AVR and PIC Microcontrollers and their coding via their related IDEs like BASCOM and CodeVision.
• COMSOL Multiphysics for Finite Element Method (FEM).
- Laboratory Tools:
• Oscilloscopes, Vector Network (Gain/Phase) Analyzers, Function generators, Multimeter, Electronic loads, Power and Audio analysers, Electric board hand soldering, PCB Layout design through OrCAD Schematic Design and Proteus, etc.
- Others:
• Latex, overleaf documentation, Microsoft office full packages, etc.

- ## MEMBERSHIP BACKGROUND   2009-PRESENT

✓ **2022 – present**   IEEE Senior Member
✓ **2009-2021**

✓**2025-present**	IEEE Student Member, IEEE Member, IEEE Graduate Student Member (*IEEE Young Professionals*), IEEE Women in Engineering (*IEEE WiE*), IEEE Signal Processing Society (*IEEE SPS*), IEEE Communication Society (*IEEE ComSoc*)
	The Association for Computing Machinery (ACM) professional member

• LANGUAGE SKILLS & PASSED EXAMS   2010-2021

- ■ **Farsi: My native language,**   ■ **English: professional at an academic level,**   ■ **Danish: Intermediate at an academic level.**

- ✓ **Danish Language Tests Scores:**
  - **- Prøve på Dansk 3 (PD3) scores:**
  - ✎ Nov.-Dec. 2021: Læsning: 4/12, Skriftlig: 2/12, Mundtlig: 7/12, Average: 5/12.

• PUBLICATIONS   2009-PRESENT

✓ Personal Web Pages

✓ **DBLP computer science bibliography Web Page**
◎ https://dblp.org/pid/40/9144.html

✓ **Google Scholar web Page (h-index = 13)**
◎ https://scholar.google.com/citations?user=r_WC0AUAAAAJ&hl=en

✓ **ORCID ID**
◎ https://orcid.org/0000-0001-5220-3609

✓ **Personal GitHub Repository**
◎ https://github.com/ashkantashk

✓ **Personal GitHub Webpage**
◎ https://ashkantashk.github.io/

✓ **Personal LinkedIn Profile**
◎ https://www.linkedin.com/in/ashkan-tashk-ph-d-118b8194/

✓ Published Books (in Persian)

◎ A. Pakfetrat, M. A. Alavianmehr, and **A. Tashk**, "*Intelligent Transportation Systems (ITS): Applications and Technology*", (2017).

◎ **A. Tashk**, "*An Introduction to Omron and Keyence PLCs*", (2009).

◎ F. Faghihi & **A. Tashk**, "*Advanced Numerical Methods with an approach toward Matlab Programming*", (2005).

✓ Journal Papers   2015-Present

◎ **A. Tashk**, S. B. Engelsen, K. M. Sørensen, K. S. Pedersen, and C. E. Eskildsen, "MIPLS2: Exploiting PLS2 to Impute Missing Values in A Two-Block System with Multiple Response Variables," Accepted to be Elsevier Journal of Analytica Chimica Acta (ACA), April 2025.https://doi.org/10.1016/j.aca.2025.344134

◎ A. Naemi, **A. Tashk**, A. S. Azar, T. Samimi, G. Tavassoli, A. B. Mohasefi, E.N. Khanshan, M. H. Najafabad, V. Tarighi, and U. Kock Wiil, "Artificial Intelligence Application for Metastatic Gastrointestinal Cancer: A Systematic Literature Review," MDPI Cancers Journal, Feb. 2025.

◎ V. Blanes-Vidal, **A. Tashk**, M. L. Cantuaria, R. S. Hansen, C. A. Poulsen, M. H. Poulsen, M.-L. Krogh, S. P. Sheikh, and E. S. Nadimi, "Epidemiological description and trajectories of patients with prostate cancer in Denmark: an observational study of 7448 patients," BMC Research Notes, Vol. 16, No. 341, 2023.

◎ J. Herp, J.M. Braun, M. L. Cantuaria, **A. Tashk**, T. B. Pedersen, M. H. A. Poulsen, M. L. Krog, S. P. Sheikh, and E. S. Nadimi, "Modelling of Electronic Health Records for Time-Variant Event Learning Beyond Bio-Markers – a Case Study in Prostate Cancer," in IEEE Access, 2023, doi: 10.1109/ACCESS.2023.3272745.

◎ M. A. Alavianmehr, M. S. Helfroush, H. Danyali, and **A. Tashk**, "Butterfly Network: A Convolutional Neural Network with A New Architecture for Multi-Scale Semantic Segmentation of Pedestrians," Springer Journal of Real-Time image processing (JRTIP), Vol. 20 (1), p.9-9, 2023. doi: https://doi.org/10.1007/s11554-023-01273-z.

◎ **A. Tashk**, J. Herp, T. Bjørsum-Meyer, A. Koulaouzidis, and E. S. Nadimi, "AID-U-Net: An Innovative Deep Convolutional Architecture for Semantic Segmentation of Biomedical Images," Diagnostics, vol. 12, no. 12, p. 2952, Nov. 2022, doi 10.3390/diagnostics12122952.

◎ M. Nejadghaderi, **A. Tashk**, P. Mansouri, and Z. Safaei Naraghi, "A Novel Study of Lichen Planopilaris Among Different Iranian Ethnicities based on Computer-aided Programs," International Journal of Computer Science and Information Technology (IJCSIT), vol. 12, no. 4, pp. 81-88, Aug. 2020.

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🌐 **Website:** https://ashkantashk.github.io/

◎ **A. Tashk**, J. Herp, and E. S. Nadimi, "Automatic Segmentation of Colorectal Polyps based on a Novel and Innovative Convolutional Neural Network Approach," WSEAS TRANSACTIONS on SYSTEMS and CONTROL, Vol. 14, Dec. 2019.

◎ **A. Tashk**, T. Hopp and N. V. Ruiters, "An Innovative Practical Automatic Segmentation of UltraSound Computer Tomography Images Acquired from USCT Systems," Springer Journal of Iranian Journal of Science and Technology Transactions of Electrical Engineering (ISTE), Jul. 2018. DOI: 10.1007/s40998-018-0098-9.

◎ Kh. Rezaei, J. Haddadnia and **A. Tashk**, "Optimized clinical segmentation of retinal blood vessels by using combination of adaptive filtering, fuzzy entropy, and skeletonization," *Elsevier Journal of Applied Soft Computing* (*ASOC*), Sep. 2016.

◎ **A. Tashk**, M. S. Helfroush, H. Danyali, and M. Akbarzadeh-jahromi, "Automatic Detection of Breast Cancer Mitotic Cells Based on the Combination of Textural, Statistical and Innovative Mathematical Features," *Elsevier Journal of Applied Mathematical Modelling* (*APM*), Jan. 2015.

✓ Conference Papers   2015-Present

◎ Md. S. Hossain, **A. Tashk**, C. M. A. Ilyas, F. Kabir, and P. Bækgaard, "Unsupervised Profiling of L2 Reading from Eye Tracking Data in the MECO-L2 Dataset" in Proc. ACM Symposium on Eye Tracking Research and Applications (ETRA'26), Workshop on MULTIPLEYE, Marrakech, Morocco, June 1–4, 2026.

◎ Md. S. Hossain, **A. Tashk**, C. M. A. Ilyas, F. Kabir, and P. Bækgaard, "Incremental Feature Analysis for Reading Pattern Detection: A Systematic Evaluation of Behavioral Indicators in L2 Eye-Tracking" in Multimodal Signal Processing for Attentional Resource Cognition (MSPARC) holding during IEEE International Conference on Acoustic, Speech, and Signal Processing (ICASSP'26), Barcelona, Spain, May 4th, 2026.

◎ **A. Tashk**, C. M. A. Ilyas, B. Cooreman, S. Beier, and P. Bækgaard, "Native Language Identification from Gaze: Logistic Regression vs. BERT on MECO-L2" in Proc. IEEE 7th International Conference on Cybernetics, Cognition and Machine Learning Applications (ICCCMLA'25), Elmshorn, Germany, November 1–2, 2025.

◎ C. M. A. Ilyas, S.-E. Noor, **A. Tashk**, B. Cooreman, S. Beier, and P. Bækgaard, "Reading the Readers Mind through Eye Tracking: Can AI Generated Texts Match Human Authors?" in Proc. ACM Symposium on Eye Tracking Research and Applications (ETRA'25), Workshop on MULTIPLEYE, Tokyo, Japan, May 26–29, 2025. DOI: https://doi.org/10.1145/3715669.3726846

◎ H. E. Jensen, C. M. A. Ilyas, **A. Tashk**, B. Cooreman, S. Beier, and P. Bækgaard, "Context Preservation Through Eye Tracking: Adaptive Reading Application Design for an Optimal Reading Experience," in Proc. ACM Symposium on Eye Tracking Research and Applications (ETRA'25), COGAIN, Tokyo, Japan, May 26–29, 2025. DOI: https://doi.org/10.1145/3715669.3725897

◎ **A. Tashk**, and M. A. Alavianmehr, "Enhanced Pedestrian Detection and Tracking Using Multi-Person Pose Extraction and Deep Convolutional LSTM Network," The 20th IEEE International Conference on Green Computing and Communications (GreenCom'24), Copenhagen, Denmark, August 19-22, 2024.

◎ **A. Tashk**, S. B. Engelsen, B. Khakimov, K. S. Pedersen, K. M. Sørensen, O. C. Galbo Engstrøm, "A Novel PLS2-Based Algorithm for Imputing Missing Values in Foodomics/Metabolomics Studies with multiple response variables," The food Analytics Conference 2023 (FAC'23), Copenhagen, Denmark, Nov. 15th, 2023.

◎ **A. Tashk**, K. E. Sahin, J. Herp, and E. S. Nadimi, "A CNN Architecture for Detection and Segmentation of Colorectal Polyps from CCE Images," 5th International Image Processing Applications and Systems 2022 (IPAS'22), Geneva, Italy, Dec. 2022.

◎ **A. Tashk**, and E. S. Nadimi, "An Innovative Polyp Detection Method from Colon Capsule Endoscopy Images Based on A Novel Combination of RCNN and DRLSE," IEEE World Congress on Computational Intelligence (IEEE WCCI2020), Glasgow, UK, 19-24 Jul. 2020.

◎ M. Nejadghaderi, **A. Tashk**, P. Mansouri, and Z. Safaei Naraghi, "Biomedical Study of Demographics and Clinical Features of Lichen Planopilaris Among the Iranian Population," 8th International Conference of Advanced Computer Science & Information Technology (ACSIT 2020), Copenhagen, Denmark, 27-28 Jun. 2020.

◎ M. A. Alavianmehr, M. S. Helfroush, H. Danyali, and **A. Tashk**, "A New Approach Toward Pedestrian Detection based on A Mixture of Region Proposal and Semantic Segmentation Deep Convolution Neural Networks," 11th Iranian and the first International Conference on Machine Vision and Image Processing (MVIP2020), Qom, Iran, 18-20 February 2020.

◎ **A. Tashk**, J. Herp, and E. S. Nadimi, "Fully Automatic Polyp Detection based on a Novel U-Net architecture and Morphological Post-process," 4th International Conference on Control, Artificial Intelligence, Robotics and Optimization (ICCAIRO2019), Athens, Greece, 8-10 Dec. 2019.

◎ M. A. Alavianmehr, M. S. Helfroush, H. Danyali, and **A. Tashk**, "Vehicle Detection in ITS Based on Improved Background Modeling Method as An Advanced Pattern Recognition Strategy for Surveillance Purposes," 4th International Conference on Pattern Recognition and Image Analysis (IPRIA2019), Tehran, Iran, 6-7 March 2019.

◎ **A. Tashk** and H. Omidi, "A Novel Strategy for Providing Visibility of Distributed Generators (DGs) in Dispatching Centers," 23rd Electrical Power Distribution Conference (EPDC2018), Tehran, Iran, 10-11 May 2018.

◎ H. Omidi, M. S. Helfroush, H. Danyali, **A. Tashk,** and K. Kazemi, "A Novel Method for Classification of Power Quality Disturbances Based on a New One-Dimensional Local Binary Pattern Approach," 8th IEEE Control and System Graduate Research Colloquium (ICSGRC2017), Shah Alam, Malaysia, 4-5 Aug. 2017.

◎ **A. Tashk**, A. Pakfetrat, M. Taghvaei, and M. A. Alavianmehr, "An Innovative Practical Surveying Green-land Areas in Metropolitan Zones based on Aerial Video Images," 8th IEEE Control and System Graduate Research Colloquium (ICSGRC2017), Shah Alam, Malaysia, 4-5 Aug. 2017.

◎ **A. Tashk**, M. A. Alavianmehr, and A. Pakfetrat, "Intelligent Automatic Detection of Traffic Rule Violation from Traffic Surveillance Video Cameras," 2nd Iran ITS Congress (ITS2017), Tehran, Iran, 7-8 Feb. 2017.

◎ M. A. Alavianmehr, **A. Tashk**, and A. Sodagaran, "Video Foreground Detection Based on Gaussian Mixture Model for Traffic Video Surveillance Systems," 4th International Conference on Traffic and Transportation Engineering (ICTTE2015), Madrid, Spain, 24-25 May 2015.

- ## PROFESSIONAL QUALIFICATIONS, HONOURS, AWARDS AND CERTIFICATES

◎ Copenhagen, Denmark, sep. 12- Nov. 14, 2023	‣ Diploma for completing the online course "Science Communication", held by the Royal Danish Academy of Science and Letters (Videnskabernes Selskab), sponsored by the Novo Nordisk and Carlsberg Foundations.
◎ Orlando, USA, 8- 10 May 2023	‣ Member of the Program Committee for the 2023 International Conference on Advances in Computing Research (ACR'23).
◎ Bangkok, Thailand, 2019	‣ Nominated as the prestigious Editorial Board and international technical committee member of CFMAI2019.
◎ Amsterdam, Netherlands, 2019	‣ Nominated as the prestigious Editorial Board member and international technical committee member of FCSIT2019 and the Best reviewer of the conference.
◎ Kerman, Iran, 2002	‣ Best Student of electrical engineering in the first semester During B.Sc. studies.
◎ Winter-2005 & spring-2006, Shiraz University, Iran	‣ Certificates of participating and passing workshops entitled "GSM Fundamentals" and "GSM-signalling" (passed with A grade), organized by Iran Tele/Mobile Communication Company (ITMC) and Mobile Company of Iran (MCI).
◎ Summer 2006	‣ Internship entitled "Preliminary Introduction to PLCs" Degree granted by Control Hooshmand Private Company.
◎ Spring 2009, Iran	‣ "Project Plan Writing", Iran Ministry of Science, research, and Technology (msrt).
◎ Spring 2009, Iran	‣ "Experience Documentation" Iran Ministry of Science, research, and Technology (msrt).
◎ Winter 2011, Shiraz, Iran	‣ Certificate from the Iranian Standard Organization for attending a workshop entitled "Introduction to International Standards and Protocols" (passed with 'A' grade).
◎ Shiraz, Iran, 2010	‣ First M.Sc. graduate Student among all the same entrance M.Sc. Students, 2010.
◎ Leuven, Belgium, 2010	‣ Invited and funded by IEEE Region 8 Student Branch and GOLD Congress 2010 Committee (SBC2010).
◎ Madrid, Spain, 2012	‣ Invited and attended IEEE Region 8 Student Branch and GOLD Congress 2012 (SBC2012).
◎ Madrid, Spain, Jul. 2012.	‣ Certificate of participation in the "Achieving Success through Networking and Social Capital Workshop," presented by Steven D'Souza, organized by the Student Branch and Gold Congress.
◎ Madrid, Spain, Jul. 2012	‣ Certificate of participation in the "Exploring Brain Chemistry with MRI-PET" presented by Jacob M. Hooker, organized by the Student Branch and Gold Congress.
◎ Madrid, Spain, Jul. 2012	‣ Certificate of participation in the "Neuroimaging in brain disease" presented by J. A. Hernandez Tamames, organized by the Student Branch and Gold Congress.
◎ Madrid, Spain, Jul. 2012	‣ Certificate of participation in the "Simultaneous Register of EEG and fMRI" presented by Ana Beatriz, organized by the Student Branch and Gold Congress.
◎ Madrid, Spain, Jul. 2012	‣ Certificate of participation in the "Where the Neurotechnology and Neurorehabilitation Meet" presented by Javier Minguez, organized by the Student Branch and Gold Congress.
◎ Madrid, Spain, Jul. 2012	‣ Certificate awarded for "Designation of a Software-Based CAD for Mitosis Detection in Histological Slide Images", held by the IPAL Laboratory and ICPR2012.
◎ Shiraz, Iran, Apr. 2013	‣ Selected as the Best national chairman of student societies for being the president of the IEEE student branch at Shiraz University of Technology (SUTECH) by the Ministry of Science, Research and Technology.
◎ Aug. 2013	‣ Certificate awarded for participation in the "Solar Power and Renewable Energy Workshop," held by the Iran Technical and Vocational Training Organization (TVTO), affiliated with the Iranian Ministry of Cooperative, Labour, and Social Welfare.
◎ Mar. 2015	

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🌐 **Website:** https://ashkantashk.github.io/

| ◎ Dec. 2017 | ‣ Certificate of Accomplishment for completing the non-credit course "Image and Video Processing: From Mars to Hollywood with a Stop at the Hospital," offered by Duke University and issued by Coursera. |
| | ‣ Selected and Appreciated as the meritorious researcher by the Governor General of Fars, Shiraz, Iran, Dec. 2017. |

● REVIEW OF ISI JOURNALS   2010-PRESENT

◎ Revision of papers for "Scientific Reports" published by Springer Nature with 2-year impact factor (**IF**): **4.996** (2021).

◎ Revision of more than two papers (till 01/24/2017) for "IEEE Transactions on Medical Imaging (**IEEE-TMI**)" journal with impact factor (**IF**) of **11.037** (2023).

◎ Revision of more than four papers for the journal of "Computers and Electrical Engineering (**COMPLECENG**)" published by Elsevier with impact factor (**IF**) of **4.152** (2024).

◎ Revision of more than **17** papers for the journal "Multimedia Tools and Applications (**MTAP**)" published by Springer with impact factor (**IF**) of **2.395** (2024).

◎ Revision of about three papers for the "Journal of Systems and Software (**JSS**)" published by Elsevier with impact factor (**IF**) of **3.514** (2024).

◎ Revision of more than three papers for the journal "Applied Soft Computing (**ASOC**)" published by Elsevier with impact factor (**IF**) of **8.263** (2024).

◎ Revision of about two papers for the journal entitled "Journal of Mechanical Engineering Science (**JMES**)" published by Sage with impact factor (**IF**) of **1.495** (2024).

◎ Revision of about two papers for "Iranian Journal of Science and Technology (**ISTE**)" published by Springer with impact factor (**IF**) of **1.723** (2024).

● ACCOMPLISHED PROJECTS   2010-PRESENT

◎ **2024, KU, DK**	Proposed a new machine learning algorithm named "MIPLS2" for predicting and imputing missing values in two-way large scale metabolomics datasets.
◎ **2023, SDU, DK**	Proposed a new machine learning model for predicting metastatic prostate cancer based on LSTM and Random Forest and by means of biochemistry test parameters and medical journals.
◎ **2022, SDU, DK**	Proposed a new CNN model named "AID-U-Net" for automatic and accurate semantic segmentation of biomedical target objects in various biomedical image modalities.
◎ **2011, IR**	Reverberation cancellation in sonar systems.
◎ **2010, SUTECH, IR**	Digital Image processing on fingerprint recognition.
◎ **2010, IR**	Producing an Automatic Parking Lot Entry and Exit Control system based on car plate and fingerprint recognition, sponsored by the National Institute of Iranian Elites (Bonyad-e-Meli-e-Nokhbegan (BMN)).
◎ **2009, IR**	Controlling Stepper Motor and commanding it using Microprocessor 8086.
◎ **2006, IR**	Design and construction of a sunlight-tracking platform.

● ME AS A COLLEAGUE

◎ Values social interaction with colleagues, especially during activities like lunchtime and the DHL run.
◎ Active lifestyle with a passion for soccer, promoting teamwork and discipline.
◎ Engages in social and academic programs, fostering a collaborative and inclusive work environment.
◎ Committed to community involvement through voluntary participation in various social activities. enjoy reading and learning new languages as well as exercising. My favourite sport is Soccer.

● SUPERVISED PROJECTS AND ACQUIRED THIRD PARTY FUNDING

- B.SC. Projects (Two Supervised Persian Projects)

1- Spring 2025	"Quantifying Reading Progress through Eye Tracking and Voice Analysis," Done by Maja Brøndtoft Klerk (s184488), 5 ECTS, DTU, Copenhagen, Denmark.
2- Spring 2025	"User Experience Design for Adaptive Reading Systems," Done by Adolfo Martin (s225214), 20 ECTS, DTU, Copenhagen, Denmark.
3- Spring 2022	"Polyp detection and segmentation using a deep learning architecture with deep neural networks," B.Sc. Project done by Kasim Emre Sahin, B.Sc. Student of software engineering at the University of Southern Denmark (SDU), Odense, Denmark.

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Website: https://ashkantashk.github.io/

| 4- Spring 2011 | "Automatic Live-Tracking of Vehicles Using Digital Image Processing for Traffic Flow Control", B.Sc. project done by B.Sc. Student of Bahonar College of Profession and Engineering. |
| 5- Spring 2011 | "Lossless Digital Biomedical Image Watermarking for EPRs Including Persian Letters" B.Sc. project done by two B.Sc. Students of Bahonar College of Profession and Engineering. |

- M.Sc. Thesis Advised/Supervised

1) Jul. 2026	"Smart Reading Support: Adaptive Cognitive Anchoring from Eye-Tracking Signals" Done by Master students Oliwer Szefer (s243866) & Sandra Maria Grzelak (s233484), DTU, Copenhagen, Denmark.
2) Jul. 2026	"Adaptive Reading Systems: A Modular Software Architecture" Done by Master students Sachin Baral (s243871) & Satish Gurung (s243872), DTU, Copenhagen, Denmark.
3) Mar. 2026	"The Impact of Font Width on Readability and User Experience in Digital Text," Done by Master student Aysha Rahman Ratry (s232194), DTU, Copenhagen, Denmark.
4) Jan. 2026	"Eye Signatures: Native Language Identification from Reading with Deep Vision Models," Done by Master student Kevin Moore (s204462), DTU, Copenhagen, Denmark.
5) Sep. 2025	"Evaluating Bold Typeface Variations for Readers With and Without Reading Difficulties to Improve Reading Experience," Done by Master Student Mobashshira Chowdhury (s230062), DTU, Copenhagen, Denmark.
6) Jul. 2025	"Investigating the Role of Typography in Enhancing Readability for Individuals with Reading Disabilities," Done by Master student Pooja Shrestha (s230004), DTU, Copenhagen, Denmark.
7) Jun. 2025	"Understanding and Modeling Reading Styles Using Eye Tracking Data," Done by Master student Md. Sabbir Hossain (s232236), DTU, Copenhagen, Denmark.
8) Jun. 2025	"Prototyping and Evaluating Adaptive Reading Interfaces for Improved User Experience," Done by Master Student Madis Otenurm (s233012), DTU, Copenhagen, Denmark.
9) Jun. 2025	"Visual Comfort and Reading Performance: Investigating the Impact of Text Spacing Through Eye Tracking," Done by Master student Sahira Salam (s222499), DTU, Copenhagen, Denmark.
10) 2020-21	"User-Centered Design for Adaptive Reading Interfaces: Improving Accessibility through Usability Testing," Done by Master student Mobashshira Chowdhury, DTU, Copenhagen, Denmark.
11) 2010-11	"Robust Lossless Data Hiding Schemes Based on Image Histogram Modification", Co-supervised the M.Sc. Dissertation of M. A. Alavianmehr, Master Student of Electronics at the University of Sistan and Baluchestan, Faculty of Electrical and Computer Engineering, Zahedan, Iran.

- Ph.D. Thesis Advised/Supervised

| 1) 2019- 2023 | "Pedestrian Detection and Tracking Schemes for ITS purposes", Done by M. A. Alavianmehr, Ph.D. Student of Telecommunication systems at shiraz university of Technology (SUTECH), Department of Electronic and Electrical Engineering, Shiraz, Iran. |

- Master or Ph.D. Special Courses

C	TITLE	STUDENT'S LEVEL/ECTS	STUDENT'S ID
1) WINTER 2025	IMAGING EYE TRACKING DATA FOR DEEP VISION	M.Sc./ 5	K. Moore (s204462)
2) AUTUMN 2025	MODELING READING STYLES USING EYE-TRACKING AND MACHINE LEARNING	M.Sc./ 5	Md Sabbir Hossain (s222336)

- Applied and Acquired Third party Funding

YEAR	TITLE	AMOUNT	ACQUIRED

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Website: https://ashkantashk.github.io/

1) 2025	- Otto Mønsted's Fund for Participating in ETRA 2025 (MULTIEYE) workshop, Tokyo, Japan.	7.500,0 DKK	YES
2) 2025	- H.C. Ørsted's Foundation Fund for technical-scientific research and experiments with a practical aim.	259.000,0 DKK	YES

- **REFERENCES UPON REQUEST**

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