# Alireza Abdollahpouri



### Contact

#### Address:

Pasdaran Blvd., University of Kurdistan, Sanandaj, Iran

#### Phone:

+98 9188770993

#### Email:

Abdollahpouri@uok.ac.ir Abdollahpouri@gmail.com

## Languages

English – Fluent German – B1

# **CURRICULUM VITAE**

## Summary

Alireza Abdollahpouri (Ph.D., University of Hamburg, Germany) is an associate professor at the Department of Computer Engineering, University of Kurdistan, Iran. He has more than 16 years experience in teaching "computer networks", "computer architecture" and "operating systems" at the undergraduate level and "dynamic complex networks" and "neural networks" at the graduate level in University of Kurdistan.

## Education

- Ph.D. in Computer Networks: University of Hamburg,
  Germany
- M.Sc. in Computer Engineering: AmirKabir University of Technology, Tehran, Iran
- B.Sc. in Computer Engineering: Isfahan University of Technology, Isfahan, Iran

# **Employment**

- 2005 Present: Academic staff University of Kurdistan
- 2001 2005: System Programmer Tehran
  Telecommunication Company

## Certifications

- Introduction to CISCO Networking Technologies
- MQ Series
- OS/390 Utilities
- Job Control Language (JCL)
- Introduction to COBOL Programming Language

### Research Interests

- Complex Networks (Influence Maximization, Link Prediction, Community Detection, Ranking)
- Computer Networks (IPTV, Quality of Service in Wireless Networks, Multimedia Networking)
- Computer Architecture (Branch Prediction Mechanisms, Pipelining, Formal verification)

## International Research Cooperation

- Cooperation in MEMPHIS Project (High speed packet processing in software routers)- University of Hamburg, 2012-2014.
- Short-term visit and cooperation in MONICA project (IoT deployment in Hamburg), Hochschule für Angewandte Wissenschaften Hamburg, summer 2018.

# Teaching Experience

- University of Kurdistan "Dynamic Complex Networks", "Computer Networks I and II", "Computer Architecture", "Operating Systems", "Machine Language and Structure", "Neural Networks", " Data Communications"
- University of Applied Science and Technology- "Computer Networks", "Principle of Network Systems", "Internet Engineering", "Computer Architecture"
- Islamic Azad University of Sanandaj- "Computer Architecture", "Computer Networks"
- Amirkabir University of Technology "Microprocessor Lab"

# Publications (Books & Book chapters)

- Abdollahpouri A. "Principles of Computer Networks", University of Kurdistan Publications, 1st Edition 2007, 2nd Edition 2012 (in Persian).
- Abdollahpouri A., QoS-aware Live IPTV Streaming Over Wireless Multi-hop Networks,
  Shaker-Verlag, Aachen, Germany, 2012.
- Abdollahpouri A. "Zapping Delay Reduction in IPTV Systems", Published as a chapter of the book "IPTV Delivery Networks: Next Generation Architectures for Live and Video-on-Demand Services", Wiley, 2018.

# Publications (Journal Papers)

- Dabiri S., Azizi S., **Abdollahpouri A.**, "Optimizing deadline violation time and energy consumption of IoT jobs in fog–cloud computing", Neural Computing and Applications, Vol. 34 (23), pp. 21157-21173, 2022.
- Rafiee S., Abdollahpouri A., "DSMN: A New Approach for Link Prediction in Multilplex Networks", Multimedia Tools and Applications, Vol. 81, pp. 33823-33849, 2022.
- Bartani A., Abdollahpouri A., Ramezani M., Akhlaghian Tab F., "An adaptive optic-physic based dust removal method using optimized air-light and transfer function", Multimedia Tools and Applications, Vol. 81, pp. 33823-33849, 2022.
- Jamal J., Azizi S., Abdollahpouri A., Ghaderi N., Sarabi B., Silva-Ordaz
  A., Castano-Menses V., "Monitoring rocket (Eruca sativa) growth parameters using the Internet of Things under supplemental LEDs lighting", Sensing and Bio-Sensing Research, 2021.
- Ramezani M., Moradi P., Abdollahpouri A., Mohammad M.A., "A new generalized collaborative filtering approach on sparse data by extracting high confidence relations between users", Information Sciences, Vol. 570, pp. 323-341, 2021.
- Abdollahpouri A., Rahimi Sh., Zamani F., Moradi P., "A Text Classification Method based on Combination of Information Gain and Graph Clustering", International Journal of Information & Communication Technology Research, 2020.
- Salavati Ch., Abdollahpouri A., Menbari Zh. "A Multi-Objective Algorithm for Identifying Influential Nodes in Social Networks", Tabriz Journal of Electrical Engineering, (TJEE), Vol. 50, Issue 3, pp. 1293-1304, 2020.
- Abdollahpouri A., Salavati Ch., Arkat J., Akhlaghian F., Menbari Zh. "A Multi-Objective Model for Identifying Valuable Nodes in Complex Networks with Minimum Cost", Cluster Computing, Springer, Vol. 23, Issue 4, pp. 2719-2733, 2020.
- Rafiee S., Abdollahpouri A., Salavati Ch. "CNDP: Link prediction based on common neighbors degree penalization", Physica A, Elsevier, Vol. 539, 2020.
- Salavati Ch., Abdollahpouri A., "Identifying Influential Nodes based on Ant Colony Optimization to Maximize Profit in Social Networks", Swarm and Evolutionary Computation, Elsevier, Vol. 51, 2019.

- Tahmasebi S., Moradi P., Ghodsi S., Abdollahpouri A. "An ideal point based many-objective optimization for community detection of complex networks", Information Sciences, Elsevier, Vol. 502. pp. 125-145, 2019.
- Golzardi E., SheikhAhmadi A., Abdollahpouri A. "Detection of Trust Links on Social Networks Using Dynamic Features", Physica A, Elsevier, Vol. 527, P. 121269, 2019.
- Salavati Ch., Abdollahpouri A., Menbari Zh. "A Multi-Objective Algorithm for Identifying Influential Nodes in Social Networks", Tabriz Journal of Electrical Engineering, (TJEE), 2019 (in press)
- Salavati Ch., Abdollahpouri A., Menbari Zh. "Ranking Nodes in Complex Networks based on Local Structure and Imroving Closeness Centrality", Neurocomputing, Elsevier, Vol. 336. pp. 36-45, 2019.
- Salavati Ch., Abdollahpouri A., Menbari Zh. "BridgeRank: A Novel Fast Centrality Measure Base on Local Structure of the Network", Physica A, Elsevier, Vol. 496. pp. 635-653, 2018.
- Rahimi Sh., Abdollahpouri A., Moradi P. "A Multi-Objective Particle Swarm Optimization Algorithm for Community Detection in Complex Networks", Swarm and Evolutionary Computation, Elsevier, Vol. 39. pp. 297-309, 2018.
- Abdollahpouri A., Ghavami R., Moradi P. "On the Synthetic Dataset Generation for IPTV Services Based on User Behavior" Multimedia Tools and Applications, Springer, Vol. 77. pp. 8475–8493, 2018.
- Amini Khoei Z., Abdollahpouri A. "Network Traffic Classification by Means of Improved Random Forest Algorithm" Computing Science Journal (CSI), Vol. 5, pp. 2-16, 2017.
- Azadjalal M., Moradi P., Abdollahpouri A., Jalili M. "A trust-aware recommendation method based on Pareto dominance and confidence concepts" Knowledge Based Systems, Vol. 116, pp. 130-143, 2017.
- Azizi G., Abdollahpouri A., "Resource Allocation in OFDMA-based WiMAX Networks for IPTV Systems Using Genetic Algorithm" Tabriz Journal of Electrical Engineering, (TJEE), Vol. 46, No. 3, pp. 249-258, 2016.
- Ghavami R. Abdollahpouri A., Moradi P., Bahrami Zh. "Popularity Prediction of Videos in IPTV Systems" University of Human Developments Journal, Vol. 1, No. 3, pp. 385-389, 2015.
- Lai J., Jiang L., Lei M., Abdollahpouri A., Fang W. "Software-defined Cellular Networking: A Practical Path Towards 5G" International Journal of

- Communication Networks and Distributed Systems (IJCNDS), Vol. 14, No.1, pp. 89-105, 2015.
- Meyer T., Wolfinger B.E., Heckmueller S., and **Abdollahpouri A.**, "A Modeling Approach for Resource Management in Resource-constrained Nodes" Academy Publisher Journal of Networks (JNW), Vol. 10, No. 1, pp. 39-50, 2015.
- Abdollahpouri A., and Wolfinger B.E., "Measures to Quantify the Gain of Multicast with Application to IPTV Transmissions via WiMAX Networks," Springer Telecommunication Systems Journal, Vol 55, pp. 185-198, 2014.
- Lai J., Li S., Abdollahpouri A., Zhang J., and Lei M. "A Fairness-based Access Control Scheme to Optimize IPTV Fast Channel Changing" Hindawi, Mathematical Problems in Engineering Journal, Vol. 2014, Article ID 207402, doi:10.1155/2014/207402
- Abdollahpouri H. and Abdollahpouri A., "Is Always Hybrid Recommender System Preferable to Single Techniques?" International Journal of Computer Applications, Vol. 82, No.4, pp. 42-48, 2013.
- Abdollahpouri A. and Wolfinger B.E., "Multicast Gain for IPTV Transmission in WiMAX Multi-hop Relay Networks," Academy Publisher Journal of Networks (JNW), Vol. 7, No. 11, pp. 1760-1772, 2012.
- Abdollahpouri A., Wolfinger B.E., Lai J., and Vinti C. "Modeling the Behavior of IPTV Users with Application to Call Blocking Probability Analysis," Zeitschrift Praxis der Informationsverarbeitung und Kommunikation (P IK Journal), Vol. 32, Heft 2, pp. 75-81, 2012.

# Publications (Conference Papers)

- Rafieie S., Abdollahpouri A., "A New Inter-layer Similarity metric for link prediction in multilayer networks" 11th International Conference on Computer and Knowledge Engineering (ICCKE 2021), Mashad, Iran., Oct. 2021.
- Rahimi Sh., **Abdollahpouri A.**, Zamani F., and Moradi P. "Feature selection based on hybridization of Information gain and graph clustering for text classification" 10th International Conference on Information and Knowledge Technology (IKT 2019), Tehran, Iran, Dec.. 2019.
- **Abdollahpouri A.**, Rahimi Sh., Mohammadi. Sh., Salavati Ch. "A Modified Particle Swarm Optimization Algorithm for Community Detection in Complex Networks" CD-MAKE 2018, Hamburg, Germany, August 2018.
- **Abdollahpouri A.**, Manyiani L.., Mohammadi. Sh. "A Novel Intrusion Detection System in MANETs Based on K-means Clustering and AFS Theory" ICNS 2018, Sulaimani, Iraq, July 2018.

- **Abdollahpouri A.**, Mohammadi. Sh. "Generating a User Behavior-based Synthetic Dataset for IPTV Services with Application to Recommender Systems" ICNS 2018, Sulaimani, Iraq, July 2018.
- Zhoulideh Kh., Abdollahpouri A. "A New Approach to Reduce Coverage Holes in Wireless Sensor Networks" 22nd CSI Computer Conference (CSICC2017), Sharif University of Technology, 2017, Tehran, Iran.
- Reisi M., Moradi P., Abdollahpouri A. "A Feature Weighting based Artificial Bee Colony Algorithm for Data Clustering" 8th International Conference on Information and Knowledge Technology (IKT 2016), Hameden, Iran, Sep. 2016.
- · Ghaderi S. **Abdollahpouri A.**, Moradi P."On the Modularity Improvement for Community Detection in Overlapping Social Networks" 8th International Symposium on Telecommunication (IST 2016), Tehran, Iran, Sep. 2016.
- Ghaffaripour Z. **Abdollahpouri A.**, Moradi P. "A Multi-objective Genetic Algorithm for Community Detection in Weighted Networks" 8th International Conference on Information and Knowledge Technology (IKT 2016), Hameden, Iran, Sep. 2016.
- Ghavami R. **Abdollahpouri A.**, Moradi P., Bahrami Zh. "Popularity Prediction of Videos in IPTV Systems" Second International Scientific Conference, Sulaymanyah, Iraq, April 2015.
- Bozorgpanah A., Fathi M., Abdollahpouri A. "Performance Analysis of Wireless Sensor Networks for Data Aggregation in Renewable Energy Sources" Smart Grid Conference (SGC'14), December 2014, Tehran, Iran.
- Bozorgpanah A., **Abdollahpouri A.**, Akhlaghian Tab F. "Categorizing Letters Based on Written Features for Feature Extraction in Kurdish Handwriting" 3rd Conference on Computational Linguistics, November 2014, Tehran, Iran.
- Azadjalal M., Moradi P., Abdollahpouri A., "Application of Game Theory techniques for Improving Trust-based Recommender Systems in Social Networks" 4th International Conference on Computer and Knowledge Engineering (ICCKE 2014), Mashad, Iran.
- Abdollahpouri H. and Abdollahpouri A., "An Approach for Personalization of Banking Services in Multi-channel Environment Using Memory-based Collaborative Filtering," 5th Conference on Information and Knowledge Technology (IKT 2013), May 22-24, Shiraz, Iran.
- Meyer T., Wolfinger B.E., Heckmueller S., and Abdollahpouri A., "Extensible and Realistic Modeling of Resource Contention in Resource-constrained Nodes," International Symposium on Performance Evaluation of Computer and Telecommunication Systems, SPECTS 2013, July 7 10th, 2013, Toronto, Canada. (best paper award)
- Abdollahpouri A. and Wolfinger B.E., "Wired and Wireless IPTV Access Networks: A Comparison Study," ICUMT 2012, St. Petersburg, Russia, Oct. 2012.
- Abdollahpouri A. and Wolfinger B.E. "Reducing Zapping Delay in WiMAX-based IPTV Systems," The 16th International GI/ITG Conference on Measurement, Modeling and Evaluation of Computing Systems and Dependability and Fault Tolerance, MMB/DFT 2012, 19-21 March 2012, Kaiserslautern, Germany.

- Abdollahpouri A. and Wolfinger B.E. "New Measures for Multicast Gain and Their Application to IPTV Delivery in WiMAX based Access Networks," IFIP/IEEE Wireless and Mobile Networking Conference (WMNC2011), 26-28 October 2011, Toulouse, France.
- Abdollahpouri A. and Wolfinger B.E. "Overhead Analysis in WiMAX-based IPTV Systems,"
  International Congress on Ultra Modern Telecommunications and Control Systems, ICUMT 2011, 5-7
  October, 2011, Budapest, Hungary.
- Abdollahpouri A., Wolfinger B.E., Lai J., and Vinti C. "Elaboration and Formal Description of IPTV User Models and Their Application to IPTV System Analysis," MMBnet2011, 15-16 Sep. 2011, Hamburg, Germany.
- Abdollahpouri A. and Wolfinger B.E. "On the Efficiency of Multicasting for IPTV Delivery over IEEE 802.16j Networks," International Symposium on Performance Evaluation of Computer and Telecommunication Systems, SPECTS 2011, June 27 - 30, 2011, The Hague, Netherlands.
- **Abdollahpouri A.**, Wolfinger B.E. and Lai J. "Unicast versus Multicast for Live TV Delivery in Networks with Tree Topology," 8th International Conference on Wired/Wireless Internet Communications (WWIC 2010), 1-3. June 2010, Lulea, Sweden.
- Abdollahpouri A. and Wolfinger B.E. "Decision Support for the Usage of Multicast versus Unicast in Broadband TV Networks," 6th Advanced International Conference on Telecommunications (AICT'10), 9-15. May 2010, Barcelona, Spain.
- Abdollahpouri A. "A New Method for Formal Verification of Superscalar Processors," 15th Iranian Conference on Electrical Engineering (ICEE2007), Telecommunication Research Center, 2007, Tehran, Iran.
- Abdollahpouri A. and Akbari M.K. "Formal Verification of a Pipelined Processor with out-of-order Execution and Branch Prediction by Model Checking," 10th Annual Computer Conference (CSICC2005), Telecommunication Research Center, 2005, Tehran, Iran.
- Abdollahpouri A. and Akbari M.K. "Formal Verification of a RISC Processor," 2nd National Computer Conference, Ferdowsi University of Mashhad, 2003, Mashhad, Iran.

# Academic Activities

- Program committee member of: ICN 2022, INC 2021, ICN 2020, ICN 2019, ICN 2018, ICN 2017, TED 2016, IKT 2016, ICN 2016, MMBnet 2015, ICN 2015, IKT 2015, TED 2015, ICCKE 2014, ICN 2014, ICIISN 2014, ISWTA 2014, ISCAIE 2014, ICISA 2013
- Member of the editorial team of the Journal of Soft Computing and Information Technology
- Reviewer of:
  - IEEE Transactions on Multimedia
  - Swarm and Evolutionary Computation
  - Physica A: Statistical Mechanics and its Applications

- International Journal of Communication Systems (IJCS)
- Journal of Information Science (JIS)
- Tabriz Journal of Electrical Engineering (TJEE)
- Computational Intelligence in Electrical Engineering