

ISEM Full-Time Faculty – Recent Publications (Listed alphabetically by last name)

Dr. Iheb Abdellatif

1. A Niture, N., **Abdellatif, I.** (2022): "Multi-Factor Traffic Collision Prediction Using AI" (In Progress). Springer SN Applied Sciences Journal.
2. Khatri, H., **Abdellatif, I.** (2022): "Systematic Literature review on the use of VR for gender-based violence detection" (In Progress). Springer Virtual Reality Journal.
3. Jakkula, P., **Abdellatif, I.** (2022): "Predictive Modeling of Wildfires in the US Using AI" (In Progress). Fire Safety Journal.
4. A Niture, N., **Abdellatif, I.** (2021): "Multi-Factor Traffic Collision Prediction Using AI". Informs 2021.
5. Jakkula, P., **Abdellatif, I.** (2022): " Multi-Factor Wildfire Prediction Using AI ". Informs 2021.
6. **Abdellatif, I.**, April, A., Abran, A. (2021): "Measuring and Representing the Multi-perspective of BPM Controls." Information Systems Management Journal (Taylor & Francis).
7. Eeshwaroju, S., Jakkula, P., **Abdellatif, I.** (2020): "An IoT based Three-Dimensional Dynamic Drone Delivery (3D4) system". IEEE Cloud Summit
8. Khatri, H., **Abdellatif, I.** (2020): "A multi-modal approach for gender-based violence detection." IEEE Cloud Summit
9. A Niture, N., **Abdellatif, I.** (2020): "AI-based airplane air pollution architecture using satellite imagery." IEEE Cloud Summit
10. **Abdellatif, I.** (2019): "Towards a novel approach for designing smart classrooms." International Conference on Information and Computer Technologies, IEEE.
11. Bendavid, Y., **Abdellatif, I.**, Ben Naceur, M. (2019): "Using IoT in operational business intelligence." Information and Management Association Conference.
12. Siamak, A., Sadeghian, R., **Abdellatif, I.**, & Nwoji, S. (2019): "Diagnosing heart disease types from chest x-rays using a deep learning approach." International Conference on Computational Science and Computational Intelligence (CSCI), IEEE.
13. **Abdellatif, I.**, Bendavid, Y. (2018): "Using a multi-perspective approach in the selection of an Internet-of-Things system." International Conference: Association of Global

Management Studies.

14. **Abdellatif, I.**, Bendavid, Y. (2016): "Towards a Multi-objective approach for implementing RFID technologies." International Journal of Design.
15. **Abdellatif, I.**, Chabanne, A. (2016): "Energy Efficiency Operations and Maintenance Planning Integration: An RFID Oriented Approach." International Journal of Wireless Information Networks.
16. **Abdellatif, I.**, April, A., Abran, A. (Submitted - 2015): "Measuring and Representing the Multi-perspective of BPM Controls." Information and Software Technology, Elsevier.
17. **Abdellatif, I.** (Submitted - 2015): "Towards a decision support tool for service identification in a service-oriented architecture." IT Professional Journal, IEEE.
18. **Abdellatif, I.**, Bendavid, Y. (2015): "Concept of multiperspectivity in operations management." LATECE 2015 seminary. December 16, 2015, Montreal, Canada.
19. Mtibaa, F., Chaabane, A., **Abdellatif, I.**, Li, Y. (2014): "Towards a Traceability Solution in the Canadian Forest Sector." 5th International Conference on Information Systems, Logistics and Supply Chain.
20. **Abdellatif, I.**, April, A. (2014): "A Comparative Evaluation on Multi-perspective Representations of Business Controls: An Experimental Case Study." Proceedings of the 2014 Industrial and Systems Engineering Research Conference. May 31 - June 3, Montreal, Canada.
21. **Abdellatif, I.**, April, A. (2012): "Multi-perspectives Representation of Internal Controls in Business Processes." Journal of Software Engineering and Applications, 2012. Vol 5: p. 971-982.
22. **Abdellatif, I.**, Ramudhin, A. (2011): "Toward a Service-Oriented Architecture for Business Processes", Service-Oriented Computing and Applications, 2011. Vol 2: p. 71-81.

Dr. Farooq Anjum

1. Anjum, Farooq (2023) "AI Demystified For Absolute Beginners: Understanding Mental Models, Software Models and Machine Learning Models", Kindle Edition, available at Amazon.com.

Dr. Siamak Aram

1. Fan, T., Sadeghian, R., & **Aram, S.** (2020, October): “Deer-Vehicle Collisions Prevention Using Deep Learning Techniques”, 2020 IEEE Cloud Summit (pp. 97-102). IEEE.
2. **Aram, S.**, Kornev, D., Han, Y., Ekramnia, M., Sadeghian, R., Sardari, S. E., ... & Gandjbakhche, A. (2020): “Machine Learning in Cognitive Neuroimaging. Data Analytics and AI”, 167.
3. R. Srivasta, M. Rahmathullah, **S. Aram**, N. Ashby, and R. Sadeghian: “A Deep Learning Approach to Diagnose Skin Cancer Using Image Processing”, CSCI 2020
4. **Siamak Aram**, Maria H. Rivero, Nikesh K. Pahuja, Roozbeh Sadeghian, Joshua L. R. Paulino, Michael Meyer, James Shallenberger. "Multi-Environmental Parameters Dashboard for Susquehanna River Basin using Machine Learning techniques", in IEEE Computer Society & Conference Publishing Services (CPS)
5. Venu, S. K., Sadeghian, R., Sardari, S. E., Dashtestani, H., Gandjbakhche, A., & **Aram, S.** (2020, July): “Neural Correlation of Brain Activities and Gaming Using Functional Near Infrared Spectroscopy and Iowa Gambling Task”, in International Conference on Applied Human Factors and Ergonomics (pp. 16-22). Springer, Cham.
6. Cumhur Cosgun, **Ozlem Cosgun**, Roozbeh Sadeghian, Siamak Aram (2020): “Prediction of Ultimate Load Capacity of Concrete-Filled Steel Tubes with Circular Sections under Axial Load by Using Predictive Analytics Methods”, IEEE CSCI 2020 (International conference on Computational science and computational intelligence)
7. Sarah Hadipour, **Siamak Aram**, Roozbeh Sadeghian: “Similar Multi-Modal Image Detection In Multi-Source Dermatoscopic Images of Cancerous Pigmented Skin Lesions”, Proceedings of the 24th International Conference on Image Processing, Computer Vision, & Pattern Recognition
8. **Aram, S.**, Kornev, D., Sadeghian, R., Sardari, S. E., Venu, S. K., Dashtestani, H., & Gandjbakhche, A. (2020, July): “Machine Learning Approaches and Neuroimaging in Cognitive Functions of the Human Brain: A Review”, in International Conference on Applied Human Factors and Ergonomics (pp. 23-29). Springer, Cham.
9. Ethel Mensah, Musarath J. Rahmathullah, Pooja Kumar, Roozbeh Sadeghian, and **Siamak Aram** (2020): “A Proactive Approach to Combating the Opioid Crisis using Machine Learning Techniques”, the 6th International Conference on Health Informatics & Medical Systems

10. Aditya Vikram Singh, Roozbeh Sadeghian, Mike Meyer, John Quigley and **Siamak Aram**: “Analyzing and monitoring the effect of precipitation on Susquehanna River Basin using a dashboard and machine learning approaches: A pilot study”, AI World Conference & Expo, Boston, MA, 2019.
11. **Siamak Aram**, Maria H. Rivero, Nikesh K. Pahuja, Roozbeh Sadeghian, Joshua L. R. Paulino, Michael Meyer, James Shallenberger (2019): "Data-driven Environmental Management: A Digital Prototype Dashboard to Analyze and Monitor the Precipitation on Susquehanna River Basin" in Springer Nature Research Book Series
12. **Siamak, A.**, Sadeghian, R., Abdellatif, I., & Nwoji, S. (2019, December): Diagnosing heart disease types from chest x-rays using a deep learning approach”. In 2019 International Conference on Computational Science and Computational Intelligence (CSCI) (pp. 910-913). IEEE.
13. **Aram, S.**, Levy, L., Patel, J. B., Anderson, A. A., Zaragoza, R., Dashtestani, H., ... & Tracy, J. K. (2019): “The Iowa gambling task: a review of the historical evolution, scientific basis, and use in functional neuroimaging”. SAGE Open, 9(3), 2158244019856911.
14. Dashtestani, H., Zaragoza, R., Kermanian, R., Condy, E., Anderson, A., Chowdhry, F., ... & Gandjbakhche, A. (2019): “The Quest for Functional Biomarkers in the Prefrontal Cortex Using Functional Near-Infrared Spectroscopy (fNIRS)”. In Neurophotonics and Biomedical Spectroscopy (pp. 123-136). Elsevier.
15. Anderson, A. A., Parsa, K., Geiger, S., Zaragoza, R., Kermanian, R., Miguel, H., ... & Gandjbakhche, A. H. (2018): “Exploring the role of task performance and learning style on prefrontal hemodynamics during a working memory task”. PloS one, 13(6), e0198257.

Barry L. Boyer

1. **Boyer, B.**, “A Case Study in IT Governance”, HDI Conference, Aug 2007.
2. **Boyer, B.**, “Networking for Healthcare Environments”, HDI Conference, Aug. 2012.
3. **Boyer, B.**, “Service Desk Software Selections based on ITIL Principles”, Aug. 2014.
4. Kaylee Bloom, **Barry Boyer**, Sindy Santos, LaDelta Williams, and Dr. Raymond Francis, “COVID-19’s Impact on Online and Blended Learning: Motivation for Returning to Education”, Canada International Conference on Education (CICE) 2022.

Dr. Ozlum Cosgun

Peer reviewed journal papers:

Published/Accepted/In-review Papers in Peer-Reviewed Journals

1. Burak Cankaya, **Ozlem Cosgun**, Kazim Topuz, Eyyub Kibis, Joao Souza Dias Garcia. (2023). High Stakes Decision Making with Prescriptive Analytics and Machine Learning: Creating and Predicting a New Sustainable Business Performance Metric for Airlines, Technological forecasting and social change, *In-review* (impact factor: 10.884)
2. Abdurrezzak Sener, **Ozlem Cosgun**, Asil Oztekin (2023). Advanced data analytics for improving the reliability of trucks and supply chain safety, Journal of Computer information systems, *In-review* (impact factor: 3.317)
3. **Ozlem Cosgun**, Gamze Kaya, Cumhur Cosgun. (2022). COVID-19 Vaccination Performance of the U.S. States: A Hybrid Model of DEA and Ensemble Methods. Annals of Operations Research, *In-review* (impact factor: 4.854)
4. **Ozlem Cosgun**, Amjad Umar, Adam Donaldson, Dursun Delen (2022). Performance Assessment of Nursing Homes for Times of Pandemic: An Integrated Methodology on Data Envelopment Analysis and Machine Learning, Expert Systems with Applications, *In-review* (impact factor: 6.954)
5. **Ozlem Cosgun**, Gokhan Yurdakul, (2020). Performance evaluation of an apparel retailer's stores by using Stochastic Imprecise DEA, Journal of Multiple Valued Logic and Soft Computing, 34, 1/2, 59-75.
6. **Ozlem Cosgun**, Esra Buyuktahtakin Toy (2018). Stochastic Dynamic Resource Allocation for HIV Prevention and Treatment: An Approximate Dynamic Programming Approach. Computers and Industrial Engineering, 118, 423-439. (impact factor: 5.431)
7. **Ozlem Cosgun**, Ufuk Kula, Cengiz Kahraman, (2017). Markdown Optimization for an apparel retailer under cross-price and initial inventory effects, Knowledge-Based Systems, 120, 186-197. (impact factor: 8.038)
8. **Ozlem Cosgun**, Ilkay Gultas (2016). Sales Plan Generation Problem on TV Broadcasting. An International Journal of Optimization and Control: Theories & Applications (IJOCTA), 6 (2), 167-178. (impact factor: 1.21)
9. **Ozlem Cosgun**, Gamze Oğcu Kaya (2016). Stochastic Dynamic Programming for Natural Gas Pricing in the Turkish Energy Market. Journal of Multiple Valued Logic and Soft

Computing, 26, 353-361.

10. **Özlem Cosgun**, Yeliz Ekinci, Seda Ugurlu (2014). Fuzzy rule-based demand forecasting for dynamic pricing of a maritime company. *Knowledge-Based Systems*, 70, 88-96. (impact factor: 8.038)
11. **Özlem Cosgun**, Gamze Oğcu (2014). Data Envelopment Analysis Application in Turkish Energy Market. *International Journal of Computational Intelligence Systems*, 7(4), 636-649. (impact factor: 1.838)
12. **Özlem Cosgun**, Ufuk Kula, Cengiz Kahraman (2013). Analysis of cross-price effects on markdown policies by using function approximation techniques. *Knowledge-Based Systems*, 53, 173-184. (impact factor: 8.038)
13. **Özlem Cosgun**, Ufuk Kula, Cengiz Kahraman (2013). Markdown Optimization via Approximate Dynamic Programming. *International Journal of Computational Intelligence Systems*, 6(1), 64-78. (impact factor: 1.838)
14. **Özlem Cosgun**, Ilkay Gultas, Mehmet Nahit Serarslan (2013). Application of a Mathematical Model to an Advertisement Reservation Problem. *An International Journal of Optimization and Control: Theories & Applications (IJOCTA)*, 3(1), 23-33. (impact factor: 1.21)
11. Seda Uğurlu, **Özlem Cosgun**, Yeliz Ekinci (2012). A Dynamic Pricing Model for a Maritime Transportation Service Provider. *International Journal of Computational Intelligence Systems*, 5 (6), 1109-1119. (impact factor: 1.838)
15. **Ozlem Cosgun**, Cengiz Kahraman, Ufuk Kula (2011), "Markdown Optimization under Stochastic Demand", itüdergisi/d (national journal in Turkey). Papers under Review in Peer-Reviewed Journals

Conference papers:

1. Ying-Chih Sun, **Ozlem Cosgun**, Raj Sharman, (2023). Assessment Of Telehealth Utilization Across US States During the COCID-19 Outbreak, INFORMS 2023 Conference
2. **Ozlem Cosgun**, Eyyub Kibis. (2023). Modelling hospital bed and ventilator capacity under non-pharmaceutical interventions during COVID-19, INFORMS 2023 Conference
3. **Ozlem Cosgun**, Burak Cankaya, Kazim Topuz, Eyyub Yunus Kibis. (2023). Creating And Predicting A New Business Performance Metric For Airlines By Using Predictive And Prescriptive Analytics, DSI 2023 Conference

4. Maria Helena Rivero, **Ozlem Cosgun**. (2023). Water Quality Index (W.Q.I.) Prediction Using Multivariate Data Analysis and Machine Learning Techniques in San Joaquin Valley Region, DSI 2023 conference
5. Cumhur Cosgun, Ozlem Cosgun. (2022). Seismic assessment of existing reinforced concrete structures by using machine learning techniques, DSI 2022 Conference
6. Enrique Pavillard, **Ozlem Cosgun**. (2022). Impact of COVID-19 on the Residential Construction Industry in the Tampa Bay Area, DSI 2022 Conference
7. **Ozlem Cosgun**, Amjad Umar. (2022). Determination of the most significant COVID-19 related factors in the efficiency prediction of the nursing homes using the Integration of DEA and ML approaches, INFORMS 2022 Conference
8. **Ozlem Cosgun**, Gamze Kaya, Cumhur Cosgun. (2022). COVID-19 Vaccination Performance of the U.S. States via DEA and Ensemble Methods, Production and Operations Management (POMS) Conference 2022, Orlando, Florida.
9. Abdurrezzak Sener, **Ozlem Cosgun**, Dursun Delen. (2021). Determining Injury Severity Risk Factors in Supply Chain Truck Crashes: A Predictive Analytics Method, DSI 2021 Conference
10. **Ozlem Cosgun**, Megha Bhimrao Gaikwad (2021). Investigating socioeconomic and health factors on the prediction of life expectancy by using ML techniques, DSI 2021 Conference
11. Cumhur Cosgun, **Ozlem Cosgun** (2021). Prediction of Reinforced Concrete Beam-Column Joint Shear Capacity By Using Machine Learning Techniques, DSI 2021 Conference
12. **Ozlem Cosgun**, Amjad Umar (2021). Performance evaluation of the Nursing Homes against Pandemics by using Optimization and Machine Learning Techniques, INFORMS 2021
13. Eyyub Kibis, **Ozlem Cosgun**, Kazim Topuz (2020). An Integrated Approach of Machine Learning and Optimization Model For Breast Cancer Chemotherapy Treatment. INFORMS 2020, Washington DC.
14. **Ozlem Cosgun**, Amjad Umar (2020). Smart Resource Allocation Advisor in the Cloud for COVID-19 and Other Pandemics. IEEE Cloud Summit.
15. Jarred Michael Carter, Husnu S. Narman, **Ozlem Cosgun**, Jinwei Liu (2020). Trade-off Model of Fog-Cloud Computing for Space Information Networks. IEEE Cloud Summit.
16. Cumhur Cosgun, **Ozlem Cosgun**, Roozbeh Sadeghian, Siamak Aram (2020). Prediction of Ultimate Load Capacity of Concrete-Filled Steel Tubes with Circular Sections under Axial

Load by Using Predictive Analytics Methods. IEEE CSCI 2020 (International conference on Computational science and computational intelligence)

17. **Ozlem Cosgun**, Abdurrezzak Sener (2020). Determination of Injury Severity Risk Factors in Commercial Crashes for Supply Chains Using Predictive Analytics Methods, INFORMS 2020, Washington DC.
18. **Ozlem Cosgun**, Eyyub Kibis, Kazim Topuz (2019). Stochastic Optimization Model with Bayesian Network update: The case of Breast Cancer Chemotherapy treatment, INFORMS 2019, Seattle, Washington.
19. **Ozlem Cosgun**, Mehmet Sevkli, Aise Zual Sevkli (2019). Comparison of Data Mining and Mathematical Models for Estimating Fuel Consumption of Passenger Vehicles, Midwest Association of Information Systems (MWAIS 2019)

Dr. Glenn Mitchell

1. **Mitchell, GW.**, 2021. Are We Spending Too Much Trying to Lower Overall Healthcare Costs? *Healthcare Innovation*; HCInnovationGroup.com Jan/Feb.
2. **Mitchell, GW**, 2014. The Silver Tsunami. *Physician Executive Journal*; 40(4):34-38.
3. **Mitchell, GW**, 2013. Synergizing ICD-10. *J AHIMA*, 84(3):34-8.
4. **Mitchell, GW**, 2013. First Steps for Synergizing Health IT Projects. *J AHIMA*, 84(5):39-41.
5. Parker GD, Smith T, Corzine ML, **Mitchell, GW**, Schrader S, Hayslip BJr, Fanning L. 2012. Assessing Attitudinal Barriers Towards End of Life Care. *Am J Hosp Palliat Care* 29: 438-442.

Dr. Robert Pittman

1. Atoosa Rezaei, **Robert Pittman**, Shane Tomblin, “A Systematic Approach to Design of Cross Contextual Systems in Cities: Cognitive Neighborhoods”, presented virtually at the ICON-SONIC 2021 Conference, October 12-13, 2021.

Dr. Thomas Plunkett

1. **Plunkett, T.**, et al., IEEE International Conference on Quantum Computing and Engineering 2020, “A Survey of Educational Efforts to Accelerate a Growing Quantum Workforce.”
2. **Plunkett, T.**, Stanford Journal of Blockchain Law and Policy, Spring, 2022: “The Blockchain Defensive Patent License as an Alternative to Forking Bitcoin to Block the

AsicBoost Patent.”

Dr. Amjad Umar

1. **Umar, A.** “Metaverse for Public Service – An Exploratory Study”, IEEE Conf on Robotics and AI, June 2022
2. **Umar, A.** “Metaverse for UN Sustainable Development Goals (SDGs) – An Exploratory Study”, UN High Level Policy Conference, Paper submitted (Invited), March 29, 2022
3. **Umar, A.** “Training and Education for Smart Cities, Communities and Enterprises Using ISEM Concept”, IEEE Technology and Engineering Management (TEM), March 2022
4. **Umar, A.** “A Digital Transformation Lab for Developing Countries and Small to Medium Enterprises”, IEEE Technology and Engineering Management (TEM), March 2022
5. **Umar, A.**, “Strategic Planning of Manufacturing 4.0 for Developing Countries”, British Commonwealth Research Report”, June 2021
6. **Umar, A.**, “An eFactory for Rapid Development of Blue Economies”, eSociety Conference, Jan 2021
7. **Umar, A.**, “A Software Factory in the Cloud for Pandemics and other Disasters – Initial Results and Future Directions”, IEEE Cloud Summit, Oct 2020
8. **Umar, A.**, “Computer Aided Strategic Planning of Digital Enterprises”, Ingram, June 2020 (Revised Sept 2022)
9. **Umar, A.**, “Computer Aided Architectures and Integration of Smart Enterprises”, Ingram, Target, Sep 2023 (currently available as a Course-pack through Paypal)
10. Cosgun, O. and **Umar, A.**, "Smart Resource Allocation Advisor in the Cloud for COVID-19 and Other Pandemics", IEEE Cloud Summit, Oct 2020
11. **Umar, A.**, “Smart Collaborating Hubs and a Smart Global Village – An Alternative Perspective on Smart Cities”, IEEE Conference on Technology and Engineering Management, June 2018
12. **Umar, A.**, and Darr, E., “Graduate Studies in Information Systems Engineering and Management (ISEM) for Digital Enterprises”, IEEE Conference on Technology and Engineering Management, June 2018
13. **Umar, A.**, “Computer Aided Strategic Planning for the United Nations Sustainable Development Goals (SDGs)”, International Journal of Engineering and Applied Sciences, Jan 2018
14. **Note:** More than 30 papers published between 1990 to 2020 (Not Shown)

BOOKS PUBLISHED

1. Umar, A., 'Distributed Computing and Client/Server Systems', Prentice Hall, 1993 (translated in 5 languages)
2. Umar, A., “Object-Oriented Client/Server Internet Environments”, Prentice Hall, 1997

3. Umar, A., "Application (Re)Engineering: Building Web-based Applications and Dealing with Legacies", Prentice Hall, 1997
4. Umar, A., "Computer Aided Strategic Planning of Digital Enterprises", Ingram, June 2020 (available as a coursepack through Paypal), Second Edition, planned Sept 2023
5. Umar, A., "Computer Aided Architectures and Integration of Smart Enterprises", Ingram, Target, Sept 2023 (available as a coursepack through Paypal)
6. Umar, A., "Enterprise Architectures and Integration Using SOA", Ingram, January 2010
7. Umar, A., "Mobile Computing and Wireless Communications: Applications, Networks, Platforms, Security, and Architectures", May 2004. (next edition under prep)
8. Umar, A., "Information Security and Auditing in the Digital Age", Ingram, August 2004
9. Umar, A., "Third Generation Distributed Computing", NGE Solutions, January 2008 (2nd edition)
10. Umar, A., "e-Business and Distributed Systems Handbook: From Strategies to Working Solutions", NGE Solutions, March 2003, Published as eight modules (Overview Module, Applications Module, Architecture Module, Integration Module, Management Module, Networks Module, Middleware Module, Platforms Module).