

A'aeshah Alhakamy, Ph.D.

د. عائشة بنت عبد الله مقبول الحكي

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Education

- 2017-2020 ■ **Ph.D., in Computer Science.** Graphics, Visualization, Imaging Track. *Purdue University, Indianapolis, USA.*
Thesis title: *Extraction and Integration of Physical Illumination in Dynamic Augmented Reality Environments.* <https://doi.org/10.25394/PGS.12950315.v1>
- 2015-2016 ■ **M.Sc., in Computer Science.** Graphics, Visualization, Imaging Track. *Purdue University, Indianapolis, USA.*
- 2001-2005 ■ **B.Sc., in Computer Science.** *Taibah University, Medina, Saudi Arabia.*


Appointments

- Sep 2023 - Present ■ **Vice Chair of the Standing Executive Committee for Data Management and Governance at the University of Tabuk.**
- Aug 2023 - Present ■ **Data Management Officer at the University of Tabuk.**
- Preparing, implementing, and following up data management programs in various fields. - Ensure compliance with national data management controls and specifications. - Communicate with business data representatives and specialists. - Oversee data quality and accuracy. - Preparing, implementing, and following up data quality improvement programs. - Overseeing data structure and modeling. - Oversee business intelligence and analytics initiatives. - Prepare and implement open data initiatives. - Manage data-sharing requests. - Manage requests for access to information. - Supervision of the data dictionary.
- Jun 2023 - Present ■ **Erasmus+ Liaison Officer at the University of Tabuk.**
Communicate with Erasmus+ Programme representatives and specialists at the Ministry of education, Erasmus+ is an European funding programme established in 1987 offering university students the possibility of studying or register in an internship abroad.
- May 2023 - Present ■ **Member of the Computer Science Department Council.**
- May 2021 - May 2023 ■ **Member of the Information Technology Department Council.**
- Propose the appointment of faculty members, graduate students, and lecturers and propose their secondment, delegation and promotion. - Propose degree plans, or their amendment in consideration with academic departments. - Propose curricula, textbooks, and references for the department of the college or institute. - Encourage the conduct of academic research, coordinate research activities between the departments of the university or institute, and undertake its publication.
- Jan 2023 - Present ■ **Researcher at the Artificial Intelligence and Sensing Technologies (AIST) Center at the University of Tabuk.**
PI: Extended Reality (XR) Making Immersive Technologies in Training and Repair: The Key to Unlocking Industry 4.0. Grant number: S-1443-0002, Amount: 24,800 SAR. - Conduct scientific research in the field of Artificial Intelligence and Sensing Technology - Work on internal and external funded research.

Appointments (continued)

























Dec 2022 - Present	<p>■ Member of the Permanent Committee Supervising Social Responsibility Activities at the University of Tabuk.</p> <p>- Participate in making and approving decisions related to the system and policies of the unit and community initiatives. Participate in the presentation and development of qualitative community initiatives. - Review the measurement of performance indicators. - Participate in planning and preparing programs for the Community Responsibility Unit.</p>
Apr 2021 - Present	<p>■ Assistant Professor of Computer Science at the Faculty of Computers and Information Technology of the University of Tabuk.</p> <p>- Conduct research and publish papers in academic journals. - Representing the university at conferences and presenting presentations when necessary. - Teaching and supervising undergraduate and graduate students. - Provide demonstrations and supervise experiments and investigations. - Answering questions in class or via email or telephone. - Provide Professors and Department Heads with feedback on student progress. - Write proposals to secure funding for research.</p>
Jan 2023 - Aug 2023	<p>■ Supervisor of Academic Affairs at the University of Tabuk.</p> <p>- Build course plan for the faculty of Computers and Information Technology</p> <p>- Assistant the supervisor of the Department of Computer Science to perform her duties.</p>
Jan 2022-Present	<p>■ The Saudi Federation For Cybersecurity, Programming and Drones Liaison Officer.</p> <p>-Acts as the point of contact between different organizations or within the University of Tabuk for all cybersecurity, programming, and drones. -Coordinating cybersecurity programming, and drone initiatives, ensuring compliance with security policies, facilitating communication between departments or organizations, and managing responses to cybersecurity incidents.</p>
Jan 2021 - Jan 2023	<p>■ Deputy Director of Industrial Innovation and Robotics Center (IIRC) at the University of Tabuk.</p> <p>- Build a strategic plan for the research center - Conduct research in the field of robotics and industrial innovations - Coordination of visits by external parties to the center - Finding aspects of partnership and research cooperation with external parties.</p>
Fall 2018- Fall 2020	<p>■ Research Assistant at Indiana University @Indianapolis.</p> <p>Working at the Data Lab with an NSF-funded project named "Aiding Reasoning about Correlation and Causation". Develop a Human-Data and Embodied Interaction system using gestures, body movements, Gamepad, or Tangible objects.</p>
Fall 2017	<p>■ Teaching Assistant at Purdue University @Indianapolis.</p> <p>Held office hours for individual student discussion and grading exams and papers for the security engineering course.</p>
Dec 2009 - Apr 2021	<p>■ Teaching Assistant of Computer Science at the Faculty of Computers and Information Technology of the University of Tabuk.</p> <p>Teaching computer organization with assembly, data structure and algorithms, operating system, theory of computation, programming language, logic design, advanced Internet and web technology, computer ethics, introduction to computing, computer programming 1 & 2</p>
2008	<p>■ Computer Instructor at Modern Girl Institute for Computer and Languages and at several High Schools.</p> <p>Taught Introduction to Computer Science, System Analysis and Design, Speed typing, Microsoft Office, Adobe Photoshop and more.</p>

Appointments (continued)


- 2007  **Secretary at Taibah Charity Association in Madina**
Administrative duties: conference and meeting setting, travel planning, letter writing, report forms brochures, cards, and customer service.

Achievements




Awards

- 2024  **Excellence Award**, in the field of teaching and learning, the path of excellence in e-learning (National Excellence), University of Tabuk Excellence Award in its first distinguished session 1445 AH - 2024 AD.  Post
-  **Outstanding Faculty Member Award**, in Student Activities, Deanship of Student Affairs, University of Tabuk  Post
-  **Outstanding Scientific Research Award**, Web of Science Journal, Deanship of Scientific Research, University of Tabuk. For manuscript  <https://doi.org/10.1007/s11042-023-17598-7>
-  **Outstanding Scientific Research Award**, Web of Science Journal, Deanship of Scientific Research, University of Tabuk. For manuscript  <https://doi.org/10.3390/s23136024>
- 2023  **Outstanding Scientific Research Award**, Web of Science Journal, Deanship of Scientific Research, University of Tabuk. For manuscript  <https://doi.org/10.3390/sym15030699>
-  **Outstanding Scientific Research Award**, Web of Science Journal, Deanship of Scientific Research, University of Tabuk. For manuscript  <https://doi.org/10.3390/su15020911>
-  **Incentive Reward for Distinguished Researchers**, published with graduate students in Web of Science classified journal, Deanship of Scientific Research, University of Tabuk. For manuscript  <http://dx.doi.org/10.14569/IJACSA.2022.0131246>
- 2022  **President's Award for Outstanding Scientific Research Award**, in research and innovation for scientific and engineering track, University of Tabuk.  Post
- 2021  **Outstanding Scientific Research Award**, Web of Science Q1 Journal, Deanship of Scientific Research, University of Tabuk. For manuscript  <https://doi.org/10.1145/3386496>
- 2020  **Travel Award**, Attend CHI conference from Dr Cafaro, NSF, and IUPUI Data Lab full support.
- 2019  **Outstanding Scientific Research Award**, Publishing while a Ph.D. student from the Saudi Arabian Cultural Mission (SACM). For manuscript  <https://doi.org/10.1109/INFOCT.2019.8710982>
- 2018  **Travel Award**, Financial Fund to attend a conference title "Introduction to Academic Leadership" provided by the Saudi Arabian Cultural Mission (SACM) that includes travel and accommodation.
- 2016  **Master with high GPA Award**, Graduating a Master's degree with a high GPA from the Saudi Arabian Cultural Mission (SACM).
- 2013  **Scholarship**, Full Scholarship from the University of Tabuk and the Saudi Arabian Cultural Mission (SACM).


Achievements (continued)

- 2005  **Honor Degree**, Graduating with honor degree, BSc in Computer Science from Taibah University.

Certifications




- June 5, 2023  **Fundamentals of Developing and Building Policies and Legal Legislation** Awarded by the national data management office (NDMO).
- July 24, 2021  **Hadoop Platform and Application Framework**. Awarded by University of California San Diego.
- 2018  **Introduction to Academic Leadership**. Awarded by the Saudi Arabia Ministry of Education.

Grants

- Aug 2022 - May 2023  **Deanship of Scientific Research, University of Tabuk** PI: Extended Reality (XR) Making Immersive Technologies in Training and Repair: The Key to Unlocking Industry 4.0, Grant#: S-1443-0002.

Mentoring (Research and Project Advisor)

Master Students

- July 2022 - July 2023  **Hibah Q. Alatawi, Nouf M. Albalawi, Ghada H. Shahata, and Khulud A. Aljohani**, Thesis titled "Extended Reality (XR) making Immersive Technologies in Training and Repair: The Key to Unlocking Industry 4.0", Published Article "Augmented Reality-Assisted Deep Reinforcement Learning-Based Model towards Industrial Training and Maintenance for NanoDrop Spectrophotometer" on  <http://doi.org/10.3390/s23136024>
- May 2021 - May 2022  **Shoroog Albalawi, Lama Alshahrani, Nouf Albalawi, and Reem Kilabi**, Thesis titled "An Iris Recognition and Authentication System Using Image Analysis and Artificial Intelligence Techniques", Published Article "A Comprehensive Overview on Biometric Authentication Systems using Artificial Intelligence Techniques" on  <http://dx.doi.org/10.14569/IJACSA.2022.0130491>

Undergraduate Students

- Jan 2024 - Present  **Bayder Alesa, Aseel Alatawi, Shooq Alfehimai, Maryam Majrashi, Noor Mubark, Nada Aladisani**, Capstone project Hajj and Omrah Guide titled "YUSR"
- Aug 2022 - Feb 2023  **Shahad Alsufyani, Alanoud Albalawi, Maha Al-Shammari, Madawi Al-Anzi, Albatul Altoum, Maha Alenazi, and Alia alatawi**, Capstone project titled "Road Breakers"
-  **Heba Al-Balawi, Wejdan Al-Atwi, Batool Abdullah, Wadha Al-Hwaiti, Bayan Al-Atwi, Samah Alhawiti, Maryam Alatwi, and Razan Alatwi**, Capstone project titled "UT Repository"
- Aug 2021 - May 2022  **Renad Alsharafaa, Manar Albalawi, Awatef Alharthi, Njoud Alhazmi, Amal Aamri, and Razan Asiri**, Capstone project titled "Stay"
-  **Rana Alharbi, Hadeel Aljuhani, Ahad Aljohani, Abeer Albalawi, Ghada Albushi, and Rahaf AlAtwi**, Capstone project titled "Student Club"
- Mar 2023 - Present  **Nour Mubarak, Bayader Al-Issa, Maryam Majrashi, Shawq Al-Fihmani, Nada Al-Adisani, Aseel Al-Atwi**, Capstone project titled "YUSR: A Mobile Application for Umra and Hajj in Makkah"

University and Community Services

Keynote Speaker/Workshops

- 28 Jan - 1 Feb 2024 ■ **Professional Center - Deanship of Student Affairs with Research and Consulting Institute**, Providing a 40 hours training program entitled "Cyber-security Course" in cooperation with the King Abdulaziz Charitable Society and King Abdulaziz Model Schools.
- 9 Feb 2023 ■ **Deanship of Scientific Research**, University of Tabuk, Saudi Arabia, A scientific seminar within the research hour initiative, Research entitled "Extended Reality (XR) Toward Building Immersive Solutions: The Key to Unlocking Industry 6.0" for the funded project with grant# S-1443-0002
- 8 Nov 2021 ■ **Faculty of Computers and Information Technology** University of Tabuk, Saudi Arabia, Seminar entitled "Essential steps to create your own website"
- 16 Sep 2021 ■ **Digital Giving Webinar, Ataa**, Seminar entitled "External scholarship and self-education to keep pace with digital transformation"
- 8 Sep 2021 ■ **Faculty of Computers and Information Technology**, University of Tabuk, Saudi Arabia, Seminar entitled "Extraction and Integration of Physical Illumination in Dynamic Augmented Reality Environment"

Reviewer/Technical Committee

- 12-14 Jun 2024 ■ **The ACM International Conference on Interactive Media Experiences (IMX)**), will be held in Stockholm, Sweden.
- 1-3 Nov 2023 ■ **The IEEE 2023, 11th International Conference on Control, Mechatronics and Automation (ICCMA 2023)**, held at Campus Grimstad, University of Agder, Norway.
- 17 Dec 2022-present ■ **Multimedia Tools and Applications Journal**, Springer Nature Switzerland AG, Reviewer of 16 scientific manuscripts and keep going
- 18 Apr 2022-present ■ **International Journal of Human-Computer Interaction**, Taylor & Francis, London, UK, Reviewer of 2 scientific manuscript and keep going
- 13-16 Feb 2022 ■ **The ACM 2022, 16th International Conference on Tangible, Embedded and Embodied Interaction (TEI)**, KAIST, Daejeon, South Korea
- 30 Nov-2 Dec 2021 ■ **The IEEE 2021, 2nd International Conference on Computing and Information Technology (ICCIT)**, at the University of Tabuk, Saudi Arabia

Ambassador

- 9 Feb 2023 ■ **Future Technologies Ambassadors Program of the Ministry of Communications and Information Technology**, Riyadh, Saudi Arabia, A workshop entitled: "Extended Reality (XR) Toward Building Immersive Solutions: The Key to Unlocking Industry 4.0"
- 12-20 Dec 2022 ■ **Future Technologies Ambassadors Program of the Ministry of Communications and Information Technology**, Riyadh, Saudi Arabia, Training an elite group of students in several different universities around the Kingdom on the technical curriculum of "Digital 101" course, providing six workshops for two hours each
- 15 Jan-20 Dec 2022 ■ **Ministry of Communications and Information Technology**, Riyadh, Saudi Arabia, Knowledge Ambassador in the Future Technologies Ambassadors Program and Stanford Technical Course "Digital 101", Attending six workshops for two hours each

University and Community Services (continued)

Event Mentor/Judge

4 Feb 2024	■ 2 - Thon Deanship of Student Affairs, University of Tabuk, Saudi Arabia, A Judge for Scientific Patents
18 and 28 Jan 2024	■ Princess Seetah Award Deanship of Student Affairs, University of Tabuk, Saudi Arabia, A Substituted Judge for Sustainable Solutions
27 Jan 2024	■ 2nd Global Game Jam Google Developer Students Club, Deanship of Student Affairs, University of Tabuk, Saudi Arabia, A Judge of results
7 Oct 2023	■ NASA International Space Apps Challenge , Deanship of Students Affairs, University of Tabuk, Saudi Arabia, Judge for Space Apps Challenge
2-5 Feb 2023	■ Xthon-2 event , Deanship of Students Affairs, University of Tabuk, Saudi Arabia, Judge for Asynchronous Learning Track
13-15 Sep 2022	■ Global Game Jam Google Developer Students Club, Deanship of Student Affairs, University of Tabuk, Saudi Arabia, A mentor to teams and Judge of results
3-7 Jan 2021	■ Xthon-1 event , Deanship of Student Affairs, University of Tabuk, Saudi Arabia, Teams Mentor for Sustainable Environment Applications Challenge

Presenter

30 Nov-2 Dec 2021	■ The IEEE 2021 2nd International Conference on Computing and Information Technology (ICCIT) , at the University of Tabuk, Saudi Arabia, Event presenter
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Participant


19-20 Dec 2023	■ Digital Governance Forum , Riyadh, Saudi Arabia, Investigating methods of cooperation for the data management office at the University of Tabuk
13-14 Sep 2023	■ The IEEE 2023 3rd International Conference on Computing and Information Technology (ICCIT) , Grand Millennium, University of Tabuk, Tabuk, Saudi Arabia, Session chair and participant
1 Dec 2022–1 Jan 2023	■ Digital Innovation Award of the Ministry of Communications and Information Technology , hybrid (Riyadh and Online), Participant in scientific research "SARA for Diabetic Children" and attending workshops and a month-long training program
13-15 Sep 2022	■ Research Partnership Day , Grand Millennium, Vice Rectorate for Postgraduate Studies and Scientific Research, University of Tabuk, Participation in the session on protecting natural reserves
	■ Global Summit on Artificial Intelligence , Riyadh, Saudi Arabia, Attend conference activities by special invitation
19 Apr 2022	■ International Education Conference and Exhibition , in Riyadh, Saudi Arabia, Attending conference activities, some of the workshops held, and being in the university corner
1-3 Feb 2022	■ LEAP 2022 , Riyadh, Saudi Arabia, Exploring cooperation for the Industrial Innovation and Robotics Center
22 Oct 2021	■ The Knowledge Society Series in E-Learning workshop , Deanship of E-Learning and Distance Education, University of Tabuk, Tabuk, Saudi Arabia, participate in discussions.

Teaching

Fall 2010 - First Semester 1431

CE 5 224  **Data Structure**, 3 lecture credit hours, Community Collage, Associate Diploma

Spring 2010 - Second Semester 1431

CSC 102  **Computer Programming 2**, 2 lab credit hours, CS Bachelor

Fall 2011 - First Semester 1432

DM 241  **Introduction to Computer**, 2 lecture, 2 lab credit hours, CS Bachelor

CSC 112  **Programming Languages**, 8 lab credit hours, CS Bachelor

CSC 109  **Computer Ethics**, 2 lecture credit hours, CS Bachelor

Spring 2011 - Second Semester 1432

CSC 101  **Computer Programming 1**, 2 lab credit hours, CS Bachelor

CSC 102  **Computer Programming 2**, 6 lab credit hours, CS Bachelor

Fall 2012 - First Semester 1433

CSC 210  **Computer organization with Assembly**, 6 lab credit hours, CS Bachelor

CSC 220  **Data Structure and Algorithms**, 4 lab credit hours, CS Bachelor


Spring 2013 - Second Semester 1433

CSC 101  **Theory of Computation** , 3 lecture credit hours, CS Bachelor

CSC 210  **Computer organization with Assembly**, 2 lab credit hours, CS Bachelor


CSC 491  **Graduation Project**, 2 lab credit hours, CS Bachelor

Spring 2021 - Second Semester 1442

CSC 102  **Computer Programming 2**, 12 lecture, 2 lab credit hours, CS Bachelor


Fall 2021 - First Semester 1443

CSC 490  **Graduation Project 1**, 2 credit hours, CS Bachelor

CSC 102  **Computer Programming 2**, 6 lecture credit hours, CS Bachelor


CIS 611  **Big Data Analytics**, 3 lecture credit hours, Master of Data Science


CIS 605  **Programming for Data Science**, 3 lecture credit hours, Master of Data Science


CSC 624  **Research Project 1**, 3 credit hours, Master of Artificial Intelligence


Spring 2022 - Second Semester 1443

CSC 490  **Graduation Project 1**, 3 credit hours, CS Bachelor

 **Graduation Project 1**, 6 credit hours, CS Bachelor

CSC 101  **Computer Programming 1**, 3 lecture credit hours, CS Bachelor

CIS 601  **Data Science Fundamentals**, 3 lecture credit hours, Master of Artificial Intelligence

CSC 624  **Research Project 2**, 3 credit hours, Master of Artificial Intelligence


Fall 2022 - First Trimester 1444


CIT 0341  **IT Project Management** , 8 lecture credit hours, IT Bachelor

CSC 0490  **Graduation Project 1**, 1 credit hours, CS Bachelor


CIT 0490  **Graduation Project 1**, 1 credit hours, IT Bachelor

CSC 1101  **Introduction to Computing**, 5 lecture credit hours, CS Bachelor

CIS 0611  **Big Data Analytics**, 4 lecture credit hours, Master of Data Science

CIT 0616  **Introduction to Cyber Security and Digital Forensic**, 4 lecture credit hours, Master of Forensic Accounting

Teaching (continued)

CSC 0624  **Research Project 1**, 3 credit hours, Master of Artificial Intelligence


Winter 2022 - Second Trimester 1444


CSC 0452  **Computer Graphics**, 5 lecture credit hours, CS Bachelor

CSC 0492  **Selected Topics in Computer Science**, 5 credit hours, CS Bachelor


CSC 0491  **Graduation Project 2**, 3 credit hours, CS Bachelor


CIT 0491  **Graduation Project 2**, 3 credit hours, IT Bachelor

CSC 1101  **Database Security**, 5 lecture and 1 lab credit hours, Master of Information Security

CSC 0624  **Research Project 2**, 3 credit hours, Master of Artificial Intelligence


Spring 2023 - Third Trimester 1444


CIT 0453  **Multimedia Systems**, 15 lecture credit hours, IT Bachelor

CSC 0624  **Research Project 3**, 3 credit hours, Master of Artificial Intelligence

Fall 2023 - First Semester 1445

CSC 420  **Theory of Computation**, 9 lecture credit hours, CS Bachelor

CIT 453  **Multimedia Systems**, 3 lecture credit hours, IT Bachelor

CSC 1102  **Problem Solving and Programming Concepts**, 2 lecture credit hours, CS Bachelor

CIS 611  **Big Data Analytics**, 3 lecture credit hours, Master of Data Science


Spring 2024 - Second Semester 1445

CSC 420  **Theory of Computation**, 3 lecture credit hours, CS Bachelor

CSC 1203  **Advanced Programming Methods**, 9 lecture credit hours, CS Bachelor

CSC 1101  **Introduction to Computing**, 2 lecture credit hours, CS Bachelor

CSC 490  **Graduation Project 1**, 1 credit hours, CS Bachelor


CIT 616  **Introduction to Cybersecurity and Digital Forensics**, 3 lecture credit hours, Master of Forensic Accounting


Fall 2024 - First Semester 1446

CSC 420  **Theory of Computation**, 6 lecture credit hours, CS Bachelor

CSC 1201  **Object Oriented Programming**, 6 lecture credit hours, CS Bachelor




CSC 490  **Graduation Project 1**, 1 credit hours, CS Bachelor

CSC 491  **Graduation Project 2**, 3 credit hours, CS Bachelor

CIS 606  **Computer Vision**, 3 lecture credit hours, Master of Artificial Intelligence

Research Publications

Journal Articles

- 1 Alhakamy, A. (2024). Extended reality (xr) toward building immersive solutions: The key to unlocking industry 4.0. *ACM Comput. Surv.*, 56(9).  doi:10.1145/3652595
- 2 Alhakamy, A. (2023a). Digital vaccination passport and administrative burden of covid-19 official application based on twitter(x) discourse: Public interest vs democracy. *Multimedia Tools and Applications*, 23(7).  doi:10.1007/s11042-023-17598-7
- 3 Alatawi, H., Albalawi, N., Shahata, G., Aljohani, K., Alhakamy, A., & Tuceryan, M. (2023). Augmented reality-assisted deep reinforcement learning-based model towards industrial training and maintenance for nanodrop spectrophotometer. *Sensors*, 23(13).  doi:10.3390/s23136024

- 4 Alhakamy, A. (2023b). Fathoming the mandela effect: Deploying reinforcement learning to untangle the multiverse. *Symmetry*, 15(3). [doi:10.3390/sym15030699](https://doi.org/10.3390/sym15030699)
- 5 Alhakamy, A., Alhowaity, A., Alatawi, A. A., & Alsaadi, H. (2023). Are used cars more sustainable? price prediction based on linear regression. *Sustainability*, 15(2). [doi:10.3390/su15020911](https://doi.org/10.3390/su15020911)
- 6 Albalawi, S., Alshahrani, L., Albalawi, N., Kilabi, R., & Alhakamy, A. (2022). A comprehensive overview on biometric authentication systems using artificial intelligence techniques. *International Journal of Advanced Computer Science and Applications*, 13(4). [doi:10.14569/IJACSA.2022.0130491](https://doi.org/10.14569/IJACSA.2022.0130491)
- 7 Alharbi, R., Alageel, N., Alsayil, M., Alharbi, R., & Alhakamy, A. (2022). Prediction of oil production through linear regression model and big data tools. *International Journal of Advanced Computer Science and Applications*, 13(12). [doi:10.14569/IJACSA.2022.0131246](https://doi.org/10.14569/IJACSA.2022.0131246)
- 8 Alomani, S. M., Alhawiti, N. I., & Alhakamy, A. (2022). Prediction of quality of water according to a random forest classifier. *International Journal of Advanced Computer Science and Applications*, 13(6). [doi:10.14569/IJACSA.2022.01306105](https://doi.org/10.14569/IJACSA.2022.01306105)
- 9 Alhakamy, A., & Tuceryan, M. (2020a). Real-time illumination and visual coherence for photorealistic augmented/mixed reality. *ACM Comput. Surv.*, 53(3). [doi:10.1145/3386496](https://doi.org/10.1145/3386496)
- 10 Trajkova, M., Alhakamy, A., Cafaro, F., Vedak, S., Mallappa, R., & Kankara, S. R. (2020). Exploring casual covid-19 data visualizations on twitter: Topics and challenges. *Informatics*, 7(3). [doi:10.3390/informatics7030035](https://doi.org/10.3390/informatics7030035)

Conference Proceedings

- 1 Alessa, N., Majdua, A., Alshehri, S., Alhawiti, M., Aljohani, R., & Alhakamy, A. (2023). Banking in terms of deposit prediction based on machine learning and big data analytics. In *2023 11th international conference on control, mechatronics and automation (iccma)* (pp. 69–74). [doi:10.1109/ICCMA59762.2023.10374595](https://doi.org/10.1109/ICCMA59762.2023.10374595)
- 2 Alshammari, A., Alshammari, R., Altalak, M., Alshammari, K., & Alhakamy, A. (2022). Credit-card fraud detection system using big data analytics. In *2022 international conference on electrical, computer, communications and mechatronics engineering (iceccme)* (pp. 1–7). [doi:10.1109/ICECCME55909.2022.9987791](https://doi.org/10.1109/ICECCME55909.2022.9987791)
- 3 Alhakamy, A., Trajkova, M., & Cafaro, F. (2021). Show me how you interact, i will tell you what you think: Exploring the effect of the interaction style on users' sensemaking about correlation and causation in data. In *Designing interactive systems conference 2021* (pp. 564–575). [doi:10.1145/3461778.3462083](https://doi.org/10.1145/3461778.3462083)
- 4 Alhakamy, A., Cafaro, F., Trajkova, M., Kankara, S., Mallappa, R., & Veda, S. (2020). Design strategies and optimizations for human-data interaction systems in museums. In *2020 ieee 20th international conference on advanced learning technologies (icalt)* (pp. 246–248). [doi:10.1109/ICALT49669.2020.00081](https://doi.org/10.1109/ICALT49669.2020.00081)
- 5 Trajkova, M., Alhakamy, A., Cafaro, F., Mallappa, R., & Kankara, S. R. (2020). Move your body: Engaging museum visitors with human-data interaction. In *Proceedings of the 2020 chi conference on human factors in computing systems* (pp. 1–13). [doi:10.1145/3313831.3376186](https://doi.org/10.1145/3313831.3376186)
- 6 Alhakamy, A., & Tuceryan, M. (2019a). An empirical evaluation of the performance of real-time illumination approaches: Realistic scenes in augmented reality. In L. T. De Paolis & P. Bourdot (Eds.), *Augmented reality, virtual reality, and computer graphics* (pp. 179–195). [doi:10.1007/978-3-030-25999-0_16](https://doi.org/10.1007/978-3-030-25999-0_16)
- 7 Alhakamy, A., & Tuceryan, M. (2019b). Polarization-based illumination detection for coherent augmented reality scene rendering in dynamic environments. In M. Gavrilova, J. Chang, N. M. Thalmann, E. Hitzer, & H. Ishikawa (Eds.), *Advances in computer graphics* (pp. 3–14). [doi:10.1007/978-3-030-22514-8_1](https://doi.org/10.1007/978-3-030-22514-8_1)

- 8 Alhakamy, A., & Tuceryan, M. (2019c). Ar360: Dynamic illumination for augmented reality with real-time interaction. In *2019 IEEE 2nd International Conference on Information and Computer Technologies (ICICT)* (pp. 170–174). [doi:10.1109/INFOCT.2019.8710982](https://doi.org/10.1109/INFOCT.2019.8710982)
- 9 Alhakamy, A., & Tuceryan, M. (2019d). Cubemap360: Interactive global illumination for augmented reality in dynamic environment. In *2019 SoutheastCon* (pp. 1–8). [doi:10.1109/SoutheastCon42311.2019.9020588](https://doi.org/10.1109/SoutheastCon42311.2019.9020588)
- 10 Alsaiari, A., Rustagi, R., Alhakamy, A., Thomas, M. M., & Forbes, A. G. (2019). Image denoising using a generative adversarial network. In *2019 IEEE 2nd International Conference on Information and Computer Technologies (ICICT)* (pp. 126–132). [doi:10.1109/INFOCT.2019.8710893](https://doi.org/10.1109/INFOCT.2019.8710893)
- 11 Cafaro, F., Trajkova, M., & Alhakamy, A. (2019). Designing embodied interactions for informal learning: Two open research challenges. In *Proceedings of the 8th ACM International Symposium on Pervasive Displays*. [doi:10.1145/3321335.3329688](https://doi.org/10.1145/3321335.3329688)

Books and Chapters

- 1 Alhakamy, A., & Tuceryan, M. (2020b). *Physical environment reconstruction beyond light polarization for coherent augmented reality scene on mobile devices* (M. L. Gavrilova, C. J. K. Tan, J. Chang, & N. M. Thalmann, Eds.). [doi:10.1007/978-3-662-61983-4_2](https://doi.org/10.1007/978-3-662-61983-4_2)

Recommendations

Available on LinkedIn and upon Request