Faculty C.V.

1. **Name**

   Ali M. Roumani

2. **Academic Rank**

   Assistant Professor – full-time

3. **Degrees**
   - Ph.D. in Computing and Information Science, 2007, Queen's University, Kingston, Canada
   - M.Sc. in Computing and Information Science, 2000, Queen's University, Kingston, Canada
   - B.Sc. 1997 (Honors) Kuwait University, Kuwait. (Honored by the Prince of Kuwait for outstanding achievement.)
   - Mini-MBA Program (Applied Management Principles), May 2012, Krannert Graduate School of Management, Purdue University, West Lafayette, IN, U.S.A.

4. **Service at AUK**

   Assistant Professor,   Sep. 2024 – Current

5. **Professional Experience**
   - Assistant Professor, Computer Science and Info Systems, American University of Kuwait, Sep. 2023 – current.
   - Assistant Professor, Gulf University for Science & Technology (GUST) – Computer Science Department, Sep. 2012 – June 2023.
   - Acting Department Head, Gulf University for Science & Technology (GUST) – Computer Science Department, Jun.- Jul. 2013 and Mar.-Aug. 2020.
   - Adjunct Assistant Professor (unpaid), Purdue University –Discovery Park, West Lafayette, Indiana, Aug. 2013 – May 2019.
   - Informatics Research Scientist, Purdue University –Discovery Park, West Lafayette, Indiana, Jun. 2009 – Jan. 2013.
   - Lecturer, Purdue University – Computer Science Department and Life Sciences Department, Jan. 2012 – Apr. 2012.
   - Instructor   , Purdue University – Discovery Park, Jun. 2009 – Aug. 2012.
   - Research Scholar and Technology Lead Architect, Purdue University – Departments of Computer Science and Biological Sciences, West Lafayette, Indiana,Dec. 2007 – May 2009.
   - Lecturer, Queen's University – School of Computing, Kingston, Ontario, Canada, Jan. – Dec. 2007.
   - Lecturer/Visiting Scholar, University of Technology (UTS) – Faculty of IT, Sydney, Australia, July 2002 – June 2003.
   - Teaching Assistant, Queen's University – School of Computing, Kingston, Ontario, Canada, Sept. 1999 – May. 2002 & Aug.2003 – Apr. 2005.

o Research Assistant, Queen's University – School of Computing, Kingston, Ontario, Sept. 1999 – May. 2002 & Aug. 2003 – Dec. 2006.

o Computer Simulation and Performance Evaluation Consultant, Telecommunication Research Group, Queen's University, Kingston, Ontario, May 2001 – Aug. 2001.

o Lecturer (part time), EBLA Computer Consultancy – Training Division, Kuwait City, Kuwait, May 1999 – Aug. 1999.

o Teaching Assistant, Kuwait University – Computer Science Department, Khaldiya, Kuwait, Sept. 1998 – Aug. 1999.

o Database-Systems Designer and Developer, Oracle – Management Information Systems, Kuwait City, Kuwait, Apr. 1997 – May 1999.

o Computer Field Engineer (part time), International Networks Centre, Kuwait City, Kuwait, Nov. 1995 – Mar. 1997.

6. **Consulting Experience**

o IT/database consultant (not paid) for Kuwait Investment Authority (KIA), 2015-2017, 2020, 2021.

o IT consultant (not paid) for the Kuwait English School (KES), 2013-2019.

7. **Publications** *Principal publication of last five years (give titles and references)*

a) Refereed Journals.

o Ahmed, A., Roumani, Ali M., (2021). Breastfeeding Monitoring Improves Maternal Self-Efficacy and Satisfaction. The American Journal of Maternal/Child Nursing (MCN) [Q2], 45(6), pp. 357-363, (E-ISSN:1539-0683, Scopus CiteScore 1.7). doi:10.1097/NMC.0000000000000658. Manuscript Number - MCN-D-20-00015R2.

o Roumani, A.M., Madkour, A., Ouzzani, M., McGrew,T. Omran, E., & Zhang, X. (2019). BioNet: An Interactive Visual Data Analysis Platform for Molecular Expressions. PLoS One [Q1]. Vol. 14(2). doi:10.1371/journal.pone.0211277.

o Keller C.E.M., Sepúlveda M.S., Hopf-Jannasch A., Roumani A.M., Zhou F.C., Brown P.B. (2018) Metabolite changes in the zebrafish model of fetal alcohol spectrum disorder associated with established neural abnormalities. The FASEB Journal [Q1], Vol. 31(1_supplement.792.1), (ISSN: 0892-6638, online: 1530-6860), (Q1 SJR 2.07, Scopus 4.32, IF = 5.49).

doi:10.1096/fasebj.31.1_supplement.792.1.
https://www.fasebj.org/doi/abs/10.1096/fasebj.31.1_supplement.792.1.

o Omran, I., Grandison, T., Nelson, D. A., Roumani, A.M., Ali. (2017). A Comparative Study to the Semantics of Ontology Chain-Based Data Access Control versus Conventional Methods in Healthcare Applications. Computer and Information Science, Vol. 10(4). 10.1.10.5539/cis.v10n4p1. doi.org/10.5539/cis.v10n4p1.

o Ahmed, A., Roumani, Ali M., Szucs, K.A., Zhang, L., King, D. (2016). The Effect of Interactive Web-Based Monitoring on Breastfeeding Exclusivity, Intensity, and Duration in Healthy, Term Infants After Hospital Discharge. Journal of Obstetric, Gynecologic & Neonatal Nursing (JOGNN) [Q1], 45(2), (ISSN: 0884-2175, ISI 4.3). doi:10.1016/j.jogn.2015.12.001.

- o Grabowski, J.M., Perera, R., Roumani, Ali M., Hedrick, V.E., Inerowicz, H.D., Hill, C.A., Kuhn, R.J. (2016). Changes in the proteome of Langat-infected Ixodes scapularis ISE6 cells: metabolic pathways associated with flavivirus infection. PLOS Neglected Tropical Diseases (PLOS NTD) [Q1], 10(2), (ISSN: 1935-2735, ISI 1.15). doi:10.1371/journal.pntd.0004180.

b) Conferences
- o Roumani, A.M., Ahmed, A., (2022). Assessment of Using a Digital System for Breastfeeding Monitoring on Self-Efficacy. CATS'22 conference (COVID 19: Computer Applications & Technological Solutions), Kuwait, March 14, 2022.
- o Ahmed, A. Szucs, K.A., Zhang, L., Roumani, A.M. (2015). The Effect of Interactive Web-based Breastfeeding Monitoring on Breastfeeding Outcomes: A randomized control trial. MNRS 39th Annual Research Conference, Indianapolis, Indiana, USA, April 16-19, 2015.
- o Keller, C.E.M. , Zhou, F. C., Brown, P.B., Jannasch, A. S., Goodman Chan, A.S. , Roumani, A.M., Sepulveda, M. S. (2012). Metabolomic insights from the zebrafish model of fetal alcohol spectrum disorders and the potential relationship to spontaneous abortion, preterm labor, and sudden infant death syndrome. Purdue Forestry and Natural Resources Research Symposium, USA, Oct. 2012. (Won 1st prize in the PhD Research division)
- o Keller, C.E.M. , Zhou, F. C., Brown, P.B., Jannasch, A. S., Goodman Chan, A.S. , Roumani, A.M., Sepulveda, M. S. (2012). Metabolomic insights from the zebrafish model of fetal alcohol spectrum disorders and the potential relationship to spontaneous abortion, preterm labor, and sudden infant death syndrome. Cold Spring Harbor Asia on Zebrafish Disease Models 5 Conference, Suzhou, China, April. 2012.
- o Keller, C.E., Zhou, F., Brown, P.B., Jannasch, A.S., Chan, A.G., Roumani, A.M., Sepulveda, M.S. (2012). Metabolomic insights into eye abnormalities in the zebrafish model of Fetal Alcohol Spectrum Disorders and the potential importance of Vitamin A. CSHAsia conference on Fishing for Answers: Zebrafish Models of Human Development and Disease, China, Apr. 16-20. 2012.
- o Robinson, J.P., Rajwa, B.P., Bae, E., Patsekin, V., Roumani, A.M., Bhunia, A.K., Dietz, J.E., Davisson, V.J., Dundar, M.M., Thomas, J., & Hirleman, E.D. (2012). Rapid Microbe Colony Identification by Optical Scattering. 9th LIP - Lasers and Interactions with Particles conference, INSA de Rouen-CORIA, France, Mar. 26-30, 2012.

c) Other Publications/Abstracts/Presentations:
- o Roumani, A.M., Ahmed, A. Szucs, (2022). Research seminar: The Effect of Interactive Web-based Monitoring on Breastfeeding Outcomes and Postpartum Depression: A Randomized Controlled Trial. GUST, Kuwait, June 29, 2022.
- o Roumani, A.M., (2022). Student Seminar: Understanding Intellectual Property Rights (IPR). Delivered to high school students participating in GUST-Tech program. GUST, Kuwait, March 19, 2022.
- o Roumani, A.M., (2020). Conference workshop: Digital Platforms (Moodle, BigBlueButton, and MS Teams). GUST virtual conference on COVID-19 Education Crisis - Discussing GUST Experience in Remote Learning During Spring and Summer Semesters 2020, Kuwait, July 25, 2020.

d) Books
  o Roumani, A.M., Skillicorn, D.B. (2004) Large-Scale Resource Selection in Grids. Lecture Notes in Computer Science [Q2], Vol. 3292, pp.154-164. Berlin: Springer Press. (ISSN: 0302-9743, ISI 0.33)

9. **Membership in Professional Societies**
  o Member of the Association for Computing Machinery (**ACM**) and the Special Interest Group on Knowledge Discovery in Data (SIGKDD) since 2015.
  o Member of **IEEE** Computer Society, since 2016.

10. **Patents, Honors and awards**
  o Ontario Graduate Scholarship (OGS) – 2002/2003, 2003/2004, and 2004/2005.
  o Conference Travel Award, Queen's University – 2004.
  o Ontario Graduate Scholarship for Science and Technology (OGS-ST) – 2001/2002.
  o Information Tech Research Centre of Excellence (ITRC) Award – 2000.
  o Queen's Graduate Award – 1999/2000 and 2000/2001.
  o Teaching Assistant Excellence Award – 2000.
  o Teaching Assistant Excellence Award – 2001.
  o Honor roll during undergraduate studies – Sept. 1993 to Jan. 1997.

11. **Courses taught**
  a) Academic Courses (all 3 credit hours)
  o At AUK: CSIS310 Operating Systems, CSIS405 Analysis of Algorithms, CSIS110 (2 sections) Introduction to Information Systems.
  o At GUST: CSC476 Operating Systems, CSC361 Database Management Systems, CSC313 Design & Analysis of Algorithms, CSC300 Discrete Structures, CSC225 Programming and Data Structures, PHIL245 Ethics and the Computer, CSC125 Object Oriented Programming-I, and CSC102 Application Development for Beginners.

  b) Intensive professional short courses
  o Roumani, A.M., Ahmed, A. Szucs, (2022). Research seminar: The Effect of Interactive Web-based Monitoring on Breastfeeding Outcomes and Postpartum Depression: A Randomized Controlled Trial. GUST, Kuwait, June 29, 2022.
  o Roumani, A.M., (2022). Student Seminar: Understanding Intellectual Property Rights (IPR). Delivered to high school students participating in GUST-Tech program. GUST, Kuwait, March 19, 2022.
  o Roumani, A.M., (2020). Conference workshop: Digital Platforms (Moodle, BigBlueButton, and MS Teams). GUST virtual conference on COVID-19 Education Crisis - Discussing GUST Experience in Remote Learning During Spring and Summer Semesters 2020, Kuwait, July 25, 2020.
  o Presented the Department Research Seminar, GUST university, April 2013 and May 2022.

12. **Other Duties**
    a) Department
       o Member of the CS program Curriculum and Assessment Committee, AUK University, Sept. 2023 – current.
       o Serving as supervisor for CS Capstone project course, advising four senior CS students), AUK University, Sept. 2023- June 2024.
       o Chair of the department Strategic Planning Committee, GUST University, Sep. 2021–Jun. 2022, then member Sep. 2022.
       o Chair of Long-term Planning and Research Committee at the CS department, GUST University, Sep. 2017 – June 2020.
       o Chair of the Facilities Committee, CS Department, GUST University, Sept. 2015 – June 2018.
       o Organized Students Ethics seminar on Computer Legal and Professional Ethics, GUST university, 16 April 2018.
       o Helped prepare course equivalency list for various major sheets and study plans at K-TECH for students interested in admission to the BS in the CS program, GUST university, 22 Dec. 2016.
       o Organized the senior-students projects exhibition for the database course (CSC361), GUST university, in May 2016.
       o Designed the department brochure for CS Department, GUST University, 2013.
       o Member of the Academic Standing Appeal Committee, GUST University, Sept. 2014 – June 2016.
       o Member of various department committees at GUST University: Facilities Committee, Appointment Committee, Curriculum Committee, Activity and Cultural Committee, Long Term Planning Committee, Research and Creative Works Committee, since Sept. 2012.
       o Coordinator of the CS Department Industry Advisory Board, GUST University, Sept. 2017 – 2023. Established the Industry Advisory Board from top market leaders and entrepreneurs and arranged the annual meetings to fulfil ABET requirements.
       o Coordinator for course CSC492-Practicum (required major) in Computer Science, GUST University. 2014 – 2023.
       o Coordinator for course CSC102-Application Development for Beginners, GUST University. Sep. 2018 – July 2020.

    b) College level
       o Member of the college Curriculum and Assessment Committee (CAC), AUK University, Sept. 2023 – current.
       o Member of the ABET Accreditation and Curriculum Committee, GUST University, Sept. 2013 – June 2020.

    c) Institution level
       o Helped organize the 1st Education Development Symposium, with NOSS USA, aimed at the education sector in Kuwait, 10-12 May 2022.
       o Chair for the Huawei-Academy-Initiative Review Committee. May-Oct. 2022. Responsible for the academic details of the Huawei Lab Initiative agreement with GUST.

- Steering Committee member for GUST Center for Teaching, Learning & Research (CTLR), 2021-present.
- Member of the Faculty Senate Committee, GUST University, Sept. 2017 - present.
- Counsellor of GUST IEEE-Student Section that was established on 21 April 2016., 2016 –2021.
- Faculty Council Representative for the College of Science, Sept. 2012 - June 2016.
- Member of university Grievance Review Committee, Purdue University, 2011 – 2012.
- Appointment Committee member (student board representative), School of Computing, Queen's University, 2004/2005.
- Student Council member (School of Computing representative), Society of Graduate and Professional Students (SGPS), Queen's University, 2003/2004.
- Departmental Committee member (student board representative), School of Computing, Queen's University, 2001/2002.
- Graduate Committee member (student board representative), School of Computing, Queen's University, 2001/2002.

d) Outside the institution
- Program Committee member for the 2009 IEEE Int'l Symposium on IT in Medicine & Education (ITME 2009).
- Conference organizer and Chair of the Organizing Committee for the 14th International Conference on Hybrid Intelligent Systems (HIS), 14-16 Dec. 2014.
- **Reviewer for:**
  - Engineering Applications of Artificial Intelligence (EAAI), Elsevier.
  - Journal of Supercomputing.
  - ACS/IEEE International Conference on Computer Systems and Applications (AICCSA).
  - IEEE Conference on Local Computer Networks (LCN).
  - IEEE Symposium on Computers and Communications (ISCC).
  - IEEE International Performance, Computing, and Communications Conference (IPCCC).
  - CATS'22 conference
- **Contests judge, coach, or organizer**
  - Judge for the Hackathon competition at GUST, 22 Oct. 2019.
  - judge for IEEE Poster/Paper/TIM/SB Contest, Kuwait Regency Hotel, Kuwait, 19-20 April 2019.
  - Coached student team for Start-Up Kuwait competition that won third place, Oct.-Dec. 2017.
  - Coached student teams for Microsoft Imagine Cup Kuwait, Feb.-May 2016 (Won 1st place in Games category) and Feb.-Apr. 2017.
  - Coached student team for Start-Up Kuwait competition, 04/01/2016 to 05/15/2016.
  - Helped organize the Gulf Programming Contest (GPC), 22-23 March 2017.

- Helped organize the 5th Kuwait Collegiate Programming Contest (KCPC), 19-21 Oct. 2017.
- Helped organize the Gulf Programming Contest (GPC), 23-24 March 2016.
- Organized Microsoft Imagine Cup Roadshow presentation, 30 Jan. 2017.

13. **Research Grants**

o GUST Internal Seed Grant - No. 234377. An Interactive Mobile Web Application for Breastfeeding Monitoring, July 2021 – Oct. 2022, 2,500 KD.

o CTSI-CTR 8000050807, "The effect of Interactive Web-based Breastfeeding Monitoring on Breastfeeding Outcomes". Role: Co-Principal Investigator, Aug. 2012 – Aug. 2015, $75K.

o NIAID-NIH 1R01- 00036991, "Functional metabolomics of dengue virus infection in the human host and mosquito vector – a novel avenue for antiviral target discovery". Role: Senior Personnel, May 2012 –Aug. 2014, $584K.

o NIH/NIGMS 1RO1GM087735-01, "Mass Informatics of Two Dimensional Gas Chromatography Time-of-flight Mass Spectrometry". Role: Purdue's Co-Principal Investigator, May 2011–Apr. 2012, $1.4Mil.

o NIAID-NIH 1R01AI089511-01, "A Distributed Clinical and Biodefense National Network for Rapid Organism Identification". Role: Senior Personnel, Aug. 2010 – Jul. 2011, $1.3Mil.

o Purdue Seed Fund 8000025663, "Product Lifecycle Management (PLM) HUB", funded by the Boeing Company, under the PLM Center of Excellence at Purdue University. Role: Co-Principal Investigator, Sep. 2008–May 2009, $8,293.

14. **Participation in Specific Programs**

o Attended "Effective Group Work" Workshop, at AUK, on Sep. 11, 2023.

o Attended "Backward Course Design: Your Path to a More Meaningful Learning Experience for You and Your Students" workshop, at AUK, on Sep. 12, 2023.

o Attended "Exploring Classroom and Authentic Assessment Techniques" workshop, at AUK, on Sep. 3, 2023.

o Attended "Streamlining Textbook Ordering Process", at AUK, on 9/10/2023.

o Attending Seminar "Sustainability in Business: Pushing Kuwait Towards Sustainable Development.", on 11/10/2023.

o Attended "Webinar Title: Increase your institution's grant success with data-driven insights", Thursday, November 2, 2023.

o Attended "Library Workshop for CEAS Capstone" in partial of fulfillment of the CSIS490.

o Research and institution training and certification:
  - Collaborative Institutional Training Initiative (CITI) courses (March 2013-present):
  - Group 1, Biomedical Research Investigators and Key Personnel.
  - Group 4, Investigators and Research Personnel Conducting Exempt Research.
  - West Lafayette Title IX Reporter Training 2017 certification. 26/10/2016-present.
  - FERPA: Family Educational Rights and Privacy Act of 1974. 10/29/2013-present.
  - GLBA: Gramm Leach Bliley Act / Financial Services Modernization Act of 1999. 10/29/2013-present.
  - Protecting SSNs: Protecting Social Security Numbers at Purdue University.

10/29/2013-present.

- Data Handling: Data Classification and Handling Educational Resources. 10/29/2013-present.
- FCOI Online Tutorial of the Office of Extramural Research (by NIH), on Sept. 10, 2013.
- Office Safety Awareness & WHMIS; and first aid and fire extinguisher use.