

Faculty C.V.

1. **Name**

Syed Ebrahim Esmaeili

2. **Academic Rank**

Associate Professor – Full-time

3. **Degrees**

DEGREE	INSTITUTION	COUNTRY	FIELD	DATE
Ph.D	Concordia University	Canada	Electrical and Computer Engineering	2011
M.A.Sc.	Kuwait University	Kuwait	Electrical Engineering	2006
B.Sc.	Kuwait University	Kuwait	Electrical Engineering	2001

4. **Service at this Institution**

Date of appointment: Fall 2013

Date of Promotion: Promoted to the rank of associate professor – Fall 2022

Number of years of service: 11 years

5. **Professional Experience**

POSITION	DEPARTMENT	INSTITUTION	DATE
Associate Professor	Engineering	American University of Kuwait	2022 – Present
Assistant Professor	Engineering	American University of Kuwait	2013 – 2022
Research Associate	Electrical and Computer Engineering	Concordia University	2011 - 2013
Research Assistant	Electrical and Computer Engineering	Concordia University	2006 - 2011
Assistant Director	Office of Academic Assessment	Kuwait University	2001 - 2006

6. **Consulting Experience**

NA

7. **Professional Registration** *(State(s) in which registered.)*

NA

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

a) Refereed Journals.

- A. Aldandan, L. Dallol, M. ALdhefeeri, O. AlSalili, **S. E. Esmaeili**, F. Badreddine, G. Hussain, “Design and Implementation of a One-Seater Solar Car”, The Journal

of Sustainable Development of Energy, Water and Environment Systems, Vol 12, Issue 1, 2024. [<http://dx.doi.org/10.13044/j.sdewes.d12.0487>]

- **S. E. Esmaeili**, A. AlRasheedi, A. AlJarrah, M. H. Marzouk, and F. Y. AlBloushi, “Design and Implementation of a Compact Automated Spirulina Cultivation System for Households”, Indonesian Journal of Agricultural Research, Vol. 6, No. 1, pp. 57-67, October 25, 2023. [<https://doi.org/10.32734/injar.v6i01.11746>]
- A. Abutaleb, M. Alhamad, M. Al-Orf, K. Alrashed, **S. E. Esmaeili**, “The Design of a Dual Open-Source 3D Printer Utilizing FDM and MSLA Printing Technologies”, International Journal of Mechatronics and Applied Mechanics (IJOMAM), Issue 13, pp 103-111, 2023. [[dx.doi.org/10.17683/ijomam/issue13.13](https://doi.org/10.17683/ijomam/issue13.13)]
- R. Bouhali, H. Al-Tabaa, S. Abdelfattah, M. Atiyeh, **S. Esmaeili** and H. Al-Tabbakh, “Otisma: An Integrated Application and Humanoid Robot as an Educational Tool for Children with Autism”, Journal of Medical Engineering and Technology, Vol. 47, Issue 1, pp. 44-53, 2023. [<http://dx.doi.org/10.1080/03091902.2022.2097327>]
- **Seyed Esmaeili** and Abeer Imdoukh, “Decreasing the Power-Clock Resonant Signal Central Voltage as a Mean for Power Reduction in Integrated Power and Clock Distribution Networks”, Indian Journal of Science and Technology, accepted for publication, Vol. 14, Issue 33, pp. 2671-2683, October 11th 2021. DOI: 10.17485/IJST/v14i33.1820
- **Seyed Esmaeili**, Ahmad Al-AbdulRazaq, Alaa Oqlah, Farah Al-Mujali, Maryam Al-Humoud, and Detlef Hummes, "Design and Assembly of An Automated Juice Mixing Machine", International Journal of Computing and Digital Systems, vol. 10, issue 01, February 2021. DOI: <http://dx.doi.org/10.12785/ijcds/100129>
- **S. E. Esmaeili**, M. Al-Khaldi, S. Al-Shammari, F. Darweesh, T. Al-Mannaei, A. Imdoukh, "Design, Analysis, and Mechanical Assembly of a Three-Wheeled Solar-Powered Electric Vehicle", International Journal of Computing and Digital Systems, vol. 09, issue 03, May 2020. ISSN: (2210-142X), DOI: <http://dx.doi.org/10.12785/ijcds/090315>

b) Conferences

- A. Al Hulaibi, H. Wahid, S. Al Saif, J. Sadeq, **S. E. Esmaeili**, M. Kandil, “SkyBot - A Novel Autonomous Window Cleaning Drone”, 4th International Conference on Electrical, Communication and Computer Engineering (ICECCE 2023), Dubai, UAE, December 30-31, 2023.
- A. M. Al-Ajmi, G. A. Thiab, F. M. Hamoudah, N. M. Mahmoud, **S. E. Esmaeili**, F. M. Badreddine, “Project Averroes: An Effective, Durable, and Consumer-Oriented Solution to the Locomotion Problem in VR Environments”, 4th International Congress on Human-Computer Interaction, Optimization and Robotic Applications, Ankara, Turkey, June 09-11, 2022. [[10.1109/HORA55278.2022.9799872](https://doi.org/10.1109/HORA55278.2022.9799872)]
- B. Ali, D. Thahir, K. Al-Karmi, **S. E. Esmaeili**, A. Alateyah, “Pothole Patrol: An autonomous Vehicle for Locating and Repairing Potholes”, 4th International Congress on Human-Computer Interaction, Optimization and Robotic Applications, Ankara, Turkey, June 09-11, 2022. [[10.1109/HORA55278.2022.9799954](https://doi.org/10.1109/HORA55278.2022.9799954)]

- A. Al-Kandari, A. AlMuzaini, A. Al-Humaidan, H. Al-Jouhari, **S. E. Esmaeili**, A. Behiry, “VGRIP: Virtual Reality in a GRIP”, 4th International Congress on Human-Computer Interaction, Optimization and Robotic Applications, Ankara, Turkey, June 09-11, 2022. [10.1109/HORA55278.2022.9799929]
- A. Aleidan, A. Almajedi, A. Alqattan, F. Alramezi, **S. E. Esmaeili**, and A. Alateyah, “Design and Implementation of an Educational Suit”, IEEE Integrated STEM Education Conference, March 26, 2022.
- M. Makhseed, F. Abdel Salam, S. El-Aswad, **S. E. Esmaeili**, "Design and Assembly of a Smart Recycling Bin", 3rd International Congress on Human-Computer Interaction, Optimization and Robotic Applications, Ankara, Turkey, June 11-13, 2021. DOI: 10.1109/HORA52670.2021.9461315
- H. F. Al-Enezi, **S. E. Esmaeili**, "The Design of a Drivable Airport Luggage Trolley", 3rd International Congress on Human-Computer Interaction, Optimization and Robotic Applications, Ankara, Turkey, June 11-13, 2021. DOI: 10.1109/HORA52670.2021.9461363
- F. Al-Alawi, D. Bouresli, **S. E. Esmaeili**, "Design and Assembly of a Smart Steamer", 3rd International Congress on Human-Computer Interaction, Optimization and Robotic Applications, Ankara, Turkey, June 11-13, 2021. DOI: 10.1109/HORA52670.2021.9461275
- **S. E. Esmaeili**, A. Lulu, F. Sharar, F. Kheder, R. Kablaoui, "The Design of a Tangible Table Based on An Array of Vertically Moving Blocks", 2021 IEEE 7th International Conference on Virtual Reality (ICVR), Foshan, China, May 20-22, 2021. DOI: 10.1109/ICVR51878.2021.9483703

c) Books
NA

9. Membership in Professional Societies

- Institution of Electrical and Electronics Engineers (IEEE) – Senior Member
- Institute of Engineering and Technology (IET) - Member
- IEEE Robotics and Automation Society - Member
- IEEE Internet Society - Member
- International Journal of Computing and Digital Systems (IJCDs) - Member
- International Association of Computer Science and Information (IACSIT) - Member
- International Association of Engineers (IAENG) - Member
- Institute of Advanced Scientific Research (IASR) - Member

10. Patents, Honors and awards

Patents:

- Reversible Adjustable Eyeglasses with Polarized and/or Prescription Lenses, **Sayed Ebrahim Esmaeili**, Patent Number: EP 2 930 553 B1, November 9th 2016.
- Reversible Adjustable Eyeglasses with Polarized and/or Prescription Lenses, **Sayed Ebrahim Esmaeili**, Patent Number: US 9,470,907 B2, October 18th 2016.
- Wheeled Suitcase, Hanan Sherif Al-Hashemi and **Sayed Ebrahim Esmaeili**, Patent Number: US 9,095,193 B1, August 2015.

Honors and Awards:

- **Open Access Publication (APC) Support from the Office of Research and Grants (ORG)** - \$675 – to publish a journal paper at the Journal of Sustainable Development of Energy, Water and Environment Systems, February 2023.
- **Professional Development Grant** – \$433 – to present a paper at the 4th International Conference on Electrical, Communication and Computer Engineering, December 30-31, 2023.
- **First Place Award** – Wolf Solar Car Capstone Project - Show Case of Engineering Capstone Design Projects, Engineering Department, College of Engineering and Applied Sciences - American University of Kuwait, May 24, 2023.
- **Third Place Award** – FORG3D – Dual 3D Printer Capstone Project - Show Case of Engineering Capstone Design Projects, Engineering Department, College of Engineering and Applied Sciences - American University of Kuwait, May 24, 2023.
- **Ten Years Service Award** – American University of Kuwait, May 18, 2023.
- **Research Completion Grant, American University of Kuwait** - Low-Swing Integrated Power and Clock Distribution Network - **\$1500, 2022.**
- **First Place Award** – Fire-Fighting Robot Capstone Project - Show Case of Engineering Capstone Design Projects, Engineering Department, College of Engineering and Applied Sciences - American University of Kuwait, June 16, 2022.
- **Second Place Award** – Augmented Reality for Educational Purposes Capstone Project- Show Case of Engineering Capstone Design Projects, Engineering Department, College of Engineering and Applied Sciences - American University of Kuwait, June 16, 2022.
- **Professional Development Grant** – \$726 – to present three papers at the 3rd International Congress on Human-Computer Interaction, Optimization and Robotic Applications, June 11-13, 2021.
- **Firebot Capstone project (AY 2020 – 2021)** received the following support:
 - **Mentorship:** Officer Al Al Dagher – Kuwait Fire Service Directorate
 - **Partial Financial support:** Ms. Alia Al Khaled (\approx \$3300)
 - **Technical Support:** Some equipment provided by EQUATE Petrochemical Company
- **Second Place Award in the Tech Category** – \$2250 – PCS: Portable Car Shade Capstone Project – 4th Maker Faire Kuwait, February 11-15th, 2020.
- **Best Project Award** – Cleaning Drone - Show Case of Engineering Capstone Design Projects, Engineering Department, American University of Kuwait, December 10th, 2019.
- **Students' Choice Award** – Autonomous Fishing Rod - Show Case of Engineering Capstone Design Projects, Engineering Department, American University of Kuwait, December 10th, 2019.

- **Research Initiation Grant**, American University of Kuwait - Low-Swing Integrated Power and Clock Distribution Network - \$1500, 2019.
- **People Choice Poster Award** – PCS: Portable Car Shade Capstone Project – 11th Undergraduate Research Conference on Applied Computing, Dubai, 2019.
- **Second Place Award in the Tech Category** – \$2000 – PaintBot Capstone Project – 3rd Maker Faire Kuwait, 2019.
- **Blue Ribbon Editor's Choice Award** – PaintBot Capstone Project – 3rd Maker Faire Kuwait, 2019.
- **Blue Ribbon Editor's Choice Award** – Solar Car Capstone Project – 3rd Maker Faire Kuwait, 2019.
- **Best Project Award** – Solar Car Capstone Project - Electrical and Computer Engineering Department 2018 Exhibition, 2018.
- **Best Paper Award** - The Design of a Touchable Table Prototype – 5th IEEE International Conference on Engineering Technologies and Applied Sciences, 2018.
- **Best Presentation Award** – The Design of a Touchable Table Prototype – 5th IEEE International Conference on Engineering Technologies and Applied Sciences, 2018.
- **Best Poster Presentation Award** – Drivable Airport Cart capstone project – 10th Undergraduate Research Conference on Applied Computing, Dubai, 2018.
- **Fourth Place Winner in the Technology Category** – SignIt: Sign Language Translator Capstone Project – \$500 prize - Second Maker Faire in Kuwait, 2018.
- **Students' Choice Award** - SignIt Capstone Project – Electrical and Computer Engineering Department 2017 Exhibition, 2017.
- **One of 9 ideas selected to be developed at the development workshop at the OpenLab Hamburg from the 16th to 10th of November 2017** - Sign It Capstone Project - Make a Difference Competition at the Helmut Schmidt University (HSU) in Hamburg. All finalists received:
 - A trip to Hamburg
 - Accommodation
 - Prototyping materials resources
 - 3D printer
- **Fourth Place Winner in the Technology Category** – RICO Capstone Project – K.D. 750 ≈ U.S. 2,450 prize - First Maker Faire in Kuwait, 2017.
- **Plaque of Gratitude for Participation** - First Maker Faire in Kuwait, 2017.
- **Silver Medal** - Reversible Adjustable Eyeglasses Invention - 9th International Invention Fair in the Middle East, 2017.
- **Silver Medal** – Wheeled Suitcase Co-Invention - 9th International Invention Fair in the Middle East, 2017.
- **Senior IEEE Membership Status**, 2017.

- **First Place in the Smart City Category** – Sun Chaser Robot Capstone Project – K.D. 1,000 \approx U.S. 3,280 - Smart Kuwait Competition at the Heading Global Conference, 2016.
- **Second Place in the Smart Industry Category** – Giving Hands Capstone Project – K.D. 600 \approx U.S. 1,970 - Smart Kuwait Competition at the Heading Global Conference, 2016.
- **Plaque of Gratitude for Invaluable Partnership and Contribution** – IET Kuwait, 2016.
- **Best Poster Presentation Award** – Sun Chaser Robot Capstone Project – 8th Undergraduate Research Conference on Applied Computing, Dubai, 2016.
- **Concordia University Thesis Completion Award** for completing the Ph.D. program in a timely fashion, 2011.
- **Golden Key International Honor Society Membership Invitation** for being one of the highest ranking students in the department, 2010.
- **Concordia University Graduate Fellowship Award**, 2009.
- **Concordia University International Tuition Fee Remission Award**, 2008.
- **Concordia University International Tuition Fee Remission Award**, 2007.
- **Concordia University Partial Tuition Fee Remission Award**, 2006.
- **College of Engineering and Petroleum Employee of the Month Award**, 2005.
- **B.Sc. degree with honors**, 2001.
- **Dean Honor List**, 1997-2000.

11. Courses taught

a) Academic Courses

Course Title	Semester	Hours/Week	Number of Sections
Electrical Circuits (ELEG 220)	Spring 2024	3	2
Engineering Economy (ENGR 330)		3	1
Power Electronics (ELEG 471)		3	1
Capstone Design Project (CPEG 475)		NA	1
Electrical Circuits (ELEG 220)	Fall 2023	3	1
Electronics (ELEG 270)		3	1
Engineering Economy (ENGR 330)		3	1
Power Electronics (ELEG 471)		3	1
Electronics (ELEG 270)	Summer 2023	6.25	1
Engineering Electromagnetics (ELEG 300)		6.25	1
Internship in Computer Engineering (CPEG 470)		NA	1
Electrical Circuits (ELEG 220)	Spring 2023	3	1
Engineering Economy (ENGR 330)		3	1
Power Electronics (ELEG 471)		3	1
Electrical Circuits (ELEG 220)	Fall 2022	3	1
Engineering Economy (ENGR 330)		3	1
Power Electronics (ELEG 471)		3	1
CMOS Digital Circuit Design (ELEG 472)		3	1
Electrical Circuits (ELEG 220)	Spring 2022	3	1
Electronics (ELEG 270)		3	1
Power Electronics (ELEG 471)		3	1
Capstone Design Project (ELEG 475)		NA	1
Electronics (ELEG 270)	Fall 2021	3	1
Engineering Economy (ENGR 330)		3	1
CMOS Digital Circuit Design (ELEG 472)		3	2
Capstone Design Project (ELEG 475)		NA	1
Electronics (ELEG 270)	Summer 2021	6.25	1
CMOS Digital Circuit Design (ELEG 472)	Summer 2021	6.25	1
Electronics (ELEG 270)	Spring 2021	3	1
Electrical Circuits (ELEG 220)		3	1
Engineering Economy (ENGR 330)		3	1
Capstone Design Project (ELEG 475)		NA	1
Electronics (ELEG 270)	Fall 2020	3	1
Electrical Circuits (ELEG 220)		3	1
Engineering Economy (ENGR 330)		3	2
Electronics (ELEG 270)	Spring 2020	3	1
Electrical Circuits (ELEG 220)		3	1
CMOS Digital Circuit Design (ELEG 472)		3	1
Capstone Design Project (ELEG 475)		NA	1

b) Intensive professional short courses

NA

c) Community Service courses

NA

12. Other Duties

Committee	Level	Academic Year	Role
University Grade Appeal Committee	University Standing	2022-present	Chair
Academic Policies and Procedures Committee	University Standing	2022-present	Member
University Grade Appeal Committee	University Standing	2020 - 2022	Member
Study Abroad & Student Exchange Programs Selection Committee	University Standing	2018 - 2019	Member
Academic Computing and Technology Committee	University Standing	2015 - 2016	Member
Scholarships and Financial Aid Committee	University Standing	2014 - 2015	Member
Professional Development Committee	University Standing	2013 - 2015	Member
Dean's Council	College	2020 - present	Member
Academic Quality and Effectiveness of Teaching/Learning Committee	College	2020- present	Chair
Resource Management and Planning Committee.	College	2020 - 2022	Member
Accreditation Committee	College	2021 - 2022	Member
CEAS Promotion Committee	College	2022-2023	
American Association for Liberal Education College Steering Committee	College	2015 - 2016	Member
College Assessment Committee	College	2015 - 2016	Chair
College Assessment Committee	College	2013 - 2014	Member
Advisory Panel for Students Complaints Against Faculty	College	2013-2014	Member
Research Committee	Departmental	2015 - 2019	Ex Officio Member
Data Collection Committee	Departmental	2013 - 2019	Member
Project Evaluation Committee	Departmental	2015 - 2019	Member
Curriculum Guide Committee	Departmental	2013 - 2019	Chair
Ad Hoc Curriculum Committee	Departmental	2018 - 2019	Member
Engineering Ethics Course Development Committee	Departmental	2015 - 2017	Member
ECE Exhibition Organizing Committee	Departmental	2015 - 2016	Chair
ECE Exhibition Organizing Committee	Departmental	2014 - 2015	Member

13. Research

- Research Completion Grant, American University of Kuwait - Low-Swing Integrated Power and Clock Distribution Network - \$1500, 2022.
- Research Initiation Grant - American University of Kuwait - Low-DC Offset Integrated Power and Clock Distribution Network - \$1500, 2019.

14. Participation in Specific Programs

A. **Technical Workshops:**

- McGraw Hill Access Engineering Training Workshop organized by the College of Engineering and Applied Sciences (CEAS) at AUK, September 28th, 2022.
- Completed a Social-Behavioral-Educational (SBE) Comprehensive course from Collaborative Institutional Training Initiative (CITI) program, March 2022.
- KFAS Programs for Research and Development workshop organized by the Office for Research and Grants (ORG) at AUK, February 14th, 2022.
- Time Management and Effective Meeting E-Learning Course, Employee Learning and Development Portal, American University of Kuwait, December 2021.
- Microsoft Teams E-Learning Course, Employee Learning and Development Portal, American University of Kuwait, December 2021.
- Getting Your Research Noticed: From Keeping Track to Keeping Score in Academic Publishing Workshop, presented by Prof. Jon W. Anderson, Catholic University of America. The workshop is organized by the Center for Teaching Excellence at AUK, March 25th, 2021,

- Orbital Space for All lecture presented by Dr. Dr. Bassam Alfeeli, the founder and general manager of “Orbital Space” and Director of innovation and enterprise at Kuwait Foundation for the Advancement of Sciences (KFAS), September 2019.
- User Experience Design Workshop organized by the CSIS Department at AUK, March 2019.
- Technical Presentation organized by the ECE department at AUK entitled: Smart Power Solutions, The Future is here NOW, March 2018.
- Science and Technology in the GCC: Building Research Capacity and Vital Linkage Workshop organized by Harvard Kennedy School's Belfer Center for Science and International Affairs and the Kuwait Foundation for the Advancement of Sciences, 22nd March 2017.

B. General and Teaching Related Workshops:

- Exploring Classroom and Authentic Assessment Techniques Workshop presented by Dr. Erica Cato. The workshop was organized by the Center for Teaching Excellence at AUK, September 13th 2023.
- Backward Course Design: Your Path to a More Meaningful Learning Experience for You and Your Students Workshop presented by Dr. Erica Cato. The workshop was organized by the Center for Teaching Excellence at AUK, September 12th 2023.
- Effective Group Work Workshop presented by Dr. Dr. Amal Bou Zeineddine. The workshop was organized by the Center for Teaching Excellence at AUK, September 11th 2023.
- Wellness through Mindfulness Workshop at AUK, October 31st 2022.
- Teaching Future Skills Workshop presented by Dr. Dr. Nancy Gleason, an Associate Professor of Practice at Hilary Ballon Center for Teaching and Learning in NYU Abu Dhabi. The workshop was organized by the Center for Teaching Excellence at AUK, September 14th 2022.
- CDIO Philosophy and the Aston Way Workshop presented by Dr. Abed Alaswad, the Deputy Head of Mechanical Engineering at Aston University, UK. The workshop was organized by the Center for Teaching Excellence at AUK, April 20th 2022.
- Conceiving, Designing, Implementing, Operating (CDIO) and Producing the Next Generation of Engineers Workshop presented by Dr. Abed Alaswad, the Deputy Head of Mechanical Engineering at Aston University, UK. The workshop was organized by the Center for Teaching Excellence at AUK, April 18th 2022.
- Trauma Informed Pedagogy Workshop presented by Dr. Nancy W. Gleason, Director, Hilary Ballon Center for Teaching and Learning, Associate Professor of Practice, Political Science, New York University Abu Dhabi. The workshop was organized by the Center for Teaching Excellence at AUK, March 28th 2022.
- Student-Centered Learning in a Disrupted Classroom Workshop presented by Dr. Nancy W. Gleason, Director, Hilary Ballon Center for Teaching and Learning, Associate Professor of Practice, Political Science, New York University Abu Dhabi. The workshop was organized by the Center for Teaching Excellence at AUK, March 30th 2022.
- Getting and Keeping Students Engaged Workshop presented by Dr. Norita Ahmad, Professor of MIS and Director of the Center for Innovation in Teaching and Learning

at American University of Sharjah (AUS). The workshop was organized by the Center for Teaching Excellence at AUK, December 2021.

- How to Incorporate Movement and Breath for Better Classroom Management Workshop presented by Ms. Maryam Hosseinnia and organized by Center for Teaching Excellence at AUK, December 2020.
- Lockdown Browser Training session presented by Dr. Ghulam Hussain, Assistant Dean, College of Engineering and Applied Sciences, AUK, December 2020.
- Syllabus Clinic Workshop presented by Dr. Rita Al Haddad, Assistant Director in the Center for Teaching Excellence at the American University of Kuwait, September 2020.