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BIOGRAPHICAL SKETCH

Mr. Michel Owayjan (IEEEEM'06) is the Chairperson of the Department of Mechatronics Engineering in the Faculty of Engineering at the American University of Science & Technology (AUST). He received the B.E. degree in Electrical Engineering and the M.E. degree in Engineering Management from the American University of Beirut, Lebanon, in 1999 and 2002, respectively. During 2000-2004, he taught as a part-time instructor at AUST. Since 2005, he has been serving as a lecturer in the Departments of Mechatronics Engineering, Computer and Communications Engineering, Computer Science, and Biomedical Engineering.



Mr. Owayjan is a member in the IEEE Robotics and Automation Society (RAS). He has been the University Liaison Officer of the IEEE Lebanon Section since 2019, and the Vice Chair of the IEEE RAS/ Control/Instrumentation Society, Lebanon Section since 2019. He served as the Student Activities Coordinator of the IEEE Lebanon Section during 2017-2018, and as the Secretary of the IEEE RAS/Control/Instrumentation Society, Lebanon Section during the same period. During 2009-2010 he served as the Membership Development and Industry Relations Officer; during 2011-2014 he served as the Secretary; and, during 2015-2016 he served as the Chair of the Computer Society in the IEEE Lebanon Section. He also served as the Vice-Chair of the IEEE RAS/Control/Instrumentation Society, Lebanon Section in 2016. He established the AUST IEEE Student Branch and served as its Counselor from 2010 till 2015, and since 2017. Mr. Owayjan has served in several committees and juries related to programming and robotics competitions. He also served as an editorial board member and a reviewer for several journals and conferences.

His research interests include signal processing, system modeling and simulation, optimization, operations research, control, algorithms, neural networks, embedded systems, robotics, mechatronics, and artificial intelligence.

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LIST OF RECENT PUBLICATIONS

1. M. Roussialian, H. Al Zanbarakji, A. Khawand, A. Rahal, and **M. Owayjan**. "Design and Development of a Pipeline Inspection Robot." In: Mechanism, Machine, Robotics and Mechatronics Sciences, R. Rizk and M. Awad, vol. 58, pp. 43-52, Springer International Publishing, May 2019. doi: 10.1007/978-3-319-89911-4_4.
2. **M. Owayjan**, F. Elias-Sleiman, H. Ezzidine, and N. Haidar. "Interactive Face Robot." International Journal of New Computer Architectures and their Applications (IJNCAA), vol. 8, no. 2, pp. 78-82, Jan. 2018. doi: 10.17781/P002435.
3. **M. Owayjan**, R. Abi Zeid Daou, and X. Moreau. "The Effects of Nonlinearities on the Robustness of Various Controllers: Application on a DC Motor." In: Proceedings of the 2018 IEEE International Multidisciplinary Conference on Engineering Technology (IMCET 2018), Beirut, Lebanon, Nov. 14-16, 2018, pp. 1-6.
4. R. Achkar, I. Mansour, **M. Owayjan**, and K. Hitti. "Prediction of Football Matches' Results using Neural Networks." In: Proceedings of the International Conference on Advanced Intelligent Systems and Informatics 2018. AISI 2018. Advances in Intelligent Systems and Computing. A. Hassanien, M. Tolba, K. Shaalan, and A. Azar, vol. 845, pp. 169-178, Springer, Cham, Jan. 2019.
5. **M. Owayjan** and J. Farhat. "ERP Neural Network Inventory Control." Procedia Computer Science, vol. 114, pp. 288-295, 2017. doi.org/10.1016/j.procs.2017.09.039.
6. **M. Owayjan**, F. Elias-Sleiman, H. Ezzidine, and N. Haidar. "Interactive Face Robot." In: Proceedings of the Third International Conference on Electrical and Electronic Engineering, Telecommunication Engineering and Mechatronics (EEETEM2017), Beirut, Lebanon, Apr. 26-28, 2017, pp. 171-175.
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8. **M. Owayjan**, B. Sleem, E. Saad, and A. Maroun. "Parking Management System using Mobile Application." in the International Conference on Sensors, Networks, Smart, and Emerging Technologies (SENSET 2017), Beirut, Lebanon, Sep. 12-14, 2017, 4 pp.
9. M. Roussialian, H. Al Zanbarakji, A. Khawand, A. Rahal, and **M. Owayjan**. "Design and Development of a Pipeline Inspection Robot." In: Proceedings of the first International Congress for the Advancement of Mechanism, Machine, Robotics and Mechatronics Sciences 2017 (ICAMMRMS 2017), Dbayeh, Lebanon, Oct. 17-19, 2017, pp. 17-21.

10. G. Freiha, **M. Owayjan**, and M. Yassine. "Automated Baby Bottle." In: Proceedings of the IEEE UKSim-AMSS 18th International Conference on Computer Modelling and Simulation (UKSim2016), Cambridge, United Kingdom, Apr. 6-8, 2016, pp. 161-166.
11. **M. Owayjan**, M. El-Adham, W. Khash, and M. Moussa. "Automated Downlink Satellite Dish Alignment System using Mobile Application (SatFinder)." In: Proceedings of the 2016 3rd International Conference on Advances in Computational Tools for Engineering Applications (ACTEA'16), Zouk Mosbeh, Lebanon, Jul. 13-15, 2016, pp. 109-112.
12. **M. Owayjan**, R. Achkar, and M. Iskandar. "Face Detection with Expression Recognition using Artificial Neural Networks." In: Proceedings of the 3rd Middle East Conference on Biomedical Engineering (MECBME'16), Beirut, Lebanon, Oct. 6-7, 2016, pp. 115-119.
13. Y. Hassoun, **M. Owayjan**, and S. Counsell. "Efficiency of Public Key Cryptosystems as Block Ciphers." In: Proceedings of the 2016 IEEE International Multidisciplinary Conference on Engineering Technology (IMCET 2016), Beirut, Lebanon, Nov. 2-4, 2016, pp. 138-143.
14. **M. Owayjan**, R. Abi Zeid Daou, and X. Moreau. "A Novel Approach to Compare a Sliding Mode Controller with a CRONE Controller in Frequency Domain: Application to a Linear DC Motor." In: Proceedings of the 2016 IEEE International Multidisciplinary Conference on Engineering Technology (IMCET 2016), Beirut, Lebanon, Nov. 2-4, 2016, pp. 196-201.
15. **M. Owayjan**, A. Dergham, G. Habr, N. Fakh, A. Hamoush, and E. Abdo. "Face Recognition Security System." In: New Trends in Networking, Computing, E-Learning, Systems Sciences, and Engineering, Lecture Notes in Electrical Engineering 312, K. Elleithy and T. Sobh, Eds., 1st ed., Switzerland: Springer International Publishing, 2015, pp. 343-348.
16. G. Freiha, H. Othman, and **M. Owayjan**. "Mathematical Formulation of the Global Coefficients of Transmission and Reflection of Ultrasonic Waves in Bi-Phase Porous Medium." In: Advanced Materials Research, O. Adiguzel, vol. 1101, pp. 471-479, Apr. 2015. doi: 10.4028/www.scientific.net/AMR.1101.471.
17. **M. Owayjan**, J.P. Rizkallah, M. Harfouche, S. Shwairy, and A. Kotaich. "Pollutube: A Mobile Application for Measurement of Noise and Pollution." In: Proceedings of the Wireless Telecommunications Symposium (WTS 2015), New York City, USA, Apr. 15-17, 2015, 6 pp.
18. **M. Owayjan**, R. Abi Zeid Daou, and X. Moreau. "A Comparison between Frequency Domain and Time Domain Controller Synthesis: Position Control of a DC Motor." In: Proceedings of the Third International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAECE 2015), Beirut, Lebanon, Apr. 29-May. 9, 2015, pp. 201-206.
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20. H. Othman, Y. Hassoun, and **M. Owayjan**. "Entropy Model for Symmetric Key Cryptography Algorithms based on Numerical Methods." Short paper: 2015 International Conference on Applied Research in Computer Science and Engineering (ICAR 2015), Antonine University, Baabda, Lebanon, Oct. 8-9, 2015, pp. 1-2. doi: 10.1109/ARCSE.2015.7338142.
21. **M. Owayjan**, G. Freiha, R. Achkar, E. Abdo, and S. Mallah. "Firoxio: Forest Fire Detection and Alerting System." In: Proceedings of 17th IEEE Mediterranean Electrotechnical Conference (MELECON 2014), Beirut, Lebanon, Apr. 13-16, 2014, pp. 177-181.
22. R. Abi Zeid Daou and **M. Owayjan**. "Importance of the Alignment of Laboratory Courses with the Needs of the Industry in Electrical Engineering Majors." In: Proceedings of the Conference Internationale des Formations d'Ingenieurs et Techniciens d'Expression Francaise 2014 (CITEF 2014), Beirut, Lebanon, Oct. 16-18, 2014, pp. 34-37.
23. G. Freiha, M. Mokhadder, and **M. Owayjan**. "Design of Cost-Effective Range Meter for Robotic Applications." In: Proceedings of the 2014 International Conference on Computer, Control, Informatics and Its Application (IC3INA 2014), Bandung, Indonesia, Oct. 21-23, 2014, 6 pp.
24. G. Freiha, H. Othman, and **M. Owayjan**. "Mathematical Formulation of the Global Coefficients of Transmission and Reflection of Ultrasonic Waves in Bi-Phase Porous Medium." In: Proceedings of the 2014 3rd International Conference on Material Science and Engineering Technology (ICMSET'14), Beijing, China, Oct. 24-26, 2014, pp. 471-479.
25. **M. Owayjan**, G. Freiha, M. Eido, K. Timani, S. Kiwan, and B. Khatib. "AUTOBAR: Automated Drink Maker Using Mobile Application." In: Proceedings of the 10th Annual IEEE International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering (CISSE'14), University of Bridgeport, Connecticut, USA, Dec. 12-14, 2014, 6 pp.