



#### **Chady El Moucary**

Associate Professor O: F11(NLC) ; E20.61 (Main Campus) T: 06.416100, Ext. 3156 E: celmoucary@ndu.edu.lb

## **Biography**

Chady El Moucary received his Bachelor of Engineering in Electrical and Electronics Engineering from the Faculty of Engineering at the Lebanese University (Branch I, Tripoli) in 1996 and graduated as the valedictorian of the year. He received a one-year CIME scholarship from the AUPELF-UREF followed by a three-year scholarship from the French CNRS to pursue his Doctorate studies at the Supelec Laboratoire de Genie Electrique de Paris. His thesis work was integrated under the umbrella of the Safety-and-Availability-of-the-Electrotechnical-Systems French National-Research Group.

He joined NDU as Assistant Professor in the Department of Electrical and Computer and Communication Engineering in October 2005 and was promoted to Associate Professor in October 2012. He is the Coordinator of the Faculty of Engineering at the North Lebanon Campus of NDU since October 2009. He is member of the Order of Engineers and Architects (OEA-Tripoli) since 1997 and was active member of its Scientific Committee from 2010 till 2016 and held the position of the representative of the Federation of Lebanese Engineers to the Federation of Arab Engineers for the Information and Communication Technology (ICT) Committee from 2012 till 2016. Dr. C. El Moucary is a Technical Program Committee Member and Reviewer for various Refereed International Conferences and a Jury Member for several professional organizations. His research interests are in the fields of Electric Drives, Signal Processing, Digital Watermarking, and Educational Data Mining.

### **Peer-reviewed Journals**

#### International

- Khair, M, Zakhem, W., & El Moucary, C. (2012) Solving Probation and Change-of-Major Issues in Higher Education Using Data Mining Techniques. International Journal of Multidisciplinary Sciences and Engineering, Vol. 3, no. 11, pp. 6–11.
- El Moucary, C. (2011) Data Mining for Engineering Schools: Predicting Students' Performance and Enrollment in Masters Programs. International Journal of Advanced Computer Science and Applications, Vol. 2, no. 10, pp. 1–9.
- El Moucary, C., Khair, M., & Zakhem, W. (2011) Improving Student's Performance Using Data Clustering and Neural Networks in Foreign-Language Based Higher Education. The Research Bulletin of Jordan ACM – ISWSA, Vol. 2, no. 3, pp. 27–34.
- El Moucary, C., & El Hassan, B. (2009) A Novel Blind Digital Watermarking Technique for Stegano-Encrypting Information Using Nine-AC-Coefficient Prediction Algorithm with an Innovative Security Strategy. WSEAS Transactions on Signal Processing, Vol. 5, no. 11, pp. 359–368.
- El-Moucary, C., Mendes, E. and Razek, A. (2002) Decoupled Direct Control for PWM Inverter-Fed Induction Motor Drives. IEEE Transactions on Industry Applications, Vol. 38, N°5, pp. 1307-1315, Sept.-Oct.

# **Peer-reviewed Conference Proceedings**

- Kassem, M. Hamad, C. El Moucary, & E. Fayad (2016) "A smart device for the detection of heart abnormality using R-R interval", IEEE-28th International Conference on Microelectronics (ICM), Pages: 293 - 296, DOI: 10.1109/ICM.2016.7847873.
- Kassem, A., Hamad, M., & El Moucary, C. (August 25-29, 2015). A Smart Spirometry Device for Asthma Diagnosis. 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, MiCo Milano Conference Center - Milan, Italy, accepted for publication.
- Harmouch, A., El Moucary, C., Ghazi, N., Bitar, Z., Fayad, C., Barake, B., & Haddad, H., (April 25, 2015). Biological Effects of Internet Routers in Indoor Environments on Human Health. The 3rd IEEE Lebanon Communications Research Day (LCRD'15), LAU-Byblos, Selina Korban Auditorium.
- A. Harmouch, C. El Moucary, R. Achkar, A. Rifaii, R. Habanbou, A. Chehade, & H. Haddad (2014), "Enhancement of Directional Characteristics of Horn Antennas Using Metallic Diffracting Strips," 20th LAAS'14 International Science Conference, Doctoral School for Sciences and Technology, Lebanese University, Hadath, Lebanon, March 27-29.
- El Moucary, C., & Kassem, A., (16 to 18 October, 2014). Engineering Education Under A Global Microscope. Conférence Internationale des Formations d'Ingénieurs et de Techniciens CITEF2014, Lebanese University, Faculty of Engineering, Rafic Hariri University Campus, Hadath, Beirut, Lebanon.
- Kassem, A, Hamad, M., El Moucary, C., Neghawi, E, Bou Jaoude, G, & Merhej, C. (2013) Asthma Care Apps. IEEE International Conference on Advances in Biomedical Engineering (ICABME), pp. 49-52, Tripoli, Lebanon.
- Harmouch, A., El Moucary, C., Haddad, H., & Kamali, W. (2013) Ring-Shaped Omnidirectional Slotted Waveguide Antenna With Improved Directional Characteristics For Wireless Internet Applications. Advanced Electromagnetic Symposium, pp. 89-93, Sharjah, UAE.
- El Moucary, C., El Hassan, B., Kassem, A., Mitri, S, Rehban, J., & Nemer, Y. (2012) Multiplexing Stereo Signals using Digital Watermarking. Proceedings of the 2nd IEEE-International Conference on Advances in Computational Tools for Engineering Applications (ACTEA'12), IEEE-DOI: 10.1109/ICTEA.2012.6462876, pp. 24-28, NDU, Lebanon.
- Daou, G., Kassem, A., Hamad, M., & El Moucary, C. (2012) FPGA Implementation of a Three-Way Asynchronous DDR2 Memory Controller. Proceedings of the 2nd IEEE-International Conference on Advances in Computational Tools for Engineering Applications (ACTEA'12), IEEE-DOI: 10.1109/ICTEA.2012.6462895, pp. 334-337, NDU, Lebanon.
- Khair, M., El Moucary, C. & Zakhem, W (2012) Creating an Educational Roadmap for Engineering Students via an Optimal and Iterative Yearly Regression Tree using Data Mining. Proceedings of the 4th International Conference on Knowledge Engineering and Ontology Development, SciTePress DOI: 10.5220/0004130300430052, pp. 43-52, Barcelona, Spain, October 4-7.
- El Moucary, C., Khair, M, & Zakhem, W (2012) Educational Data mining for the Engineering Students at NDU. 18th International LAAS Science Meeting: New Discoveries in Science, NDU, 22-24 March.
- Harmouch, A, El Moucary, C., Ziade, M., Finianos, J., Akkari, C. & Ayoub, S (2012) Enhancement of Directional Characteristics of Corner Reflector Antennas Using Metallic Scatters. 19th International IEEE Conference on Telecommunications (ICT 2012), DOI: 10.1109/ICTEL.2012.6221279, pp. 1-4, Jounieh, Lebanon.
- El Hassan, B, & El Moucary, C. (2011) Data Hiding in Telemedicine: A Versatile Approach for Watermarking EPR in Medical Images. International Conference on Advances in Biomedical Engineering (ICABME 2011), pp. 107-108, Tripoli, Lebanon.
- Harmouch, A., Kamali, W. & El Moucary, C. (2011) Sidelobe Reduction in Offset Dish Parabolic Antennas Using Metallic Scatters. Progress in Electromagnetics Research Symposium (PIERS), Marrakesh, Morocco, pp. 1835-1839, 20–23 March.
- C. El Moucary, & B. El Hassan (2009) A Novel Approach for Extended Insertion-Capacity and Encrypted-Robust Blind Watermarking for Still Images in the DCT Domain. Proceedings of the 9th WSEAS International Conference on Signal, Speech and Image Processing (SSIP '09), pp. 210–214, Budapest Tech, Hungary, 3-5 September.
- Nohra, C, Noura, H., El-Moucary, C., & Younes, R. (2008) A Nonlinear Approach with Gain Schedule Control Adaptation for a Complete-Model Diesel-Engine Diagnosis. IEEE-ISCCSP 2008. Malta: (IEEE-Third International Symposium on Communications, Control and Signal Processing), pp. 689–696.
- El-Hassan, B., El-Moucary, C. & Georges, S. (2008) Robust Watermarking Based on an Enhanced LSB-Substitution Method for Medical Applications. IMCL 2008, Amman: Third International Conference on Interactive Mobile and Computer Aided Learning, pp.16-18.
- El-Moucary, C., Mendes, E., & Razek, A. (2001) Decoupled Direct Control for PWM Inverter-Fed Induction Motor Drives. IEMDC'2001, Cambridge, USA: International Electric Machines and Drives Conference, pp. 37-43.
- El-Moucary, C., Raithel, T., Ortega, R., and Mendes, E. (2000) A New Strategy for Direct Torque and Flux Control of Induction Motor Drives. ICEM 2000, Espoo, Finland: International Conference on Electrical Machines, Vol. 2, pp. 923-927.
- El-Moucary, C., Garcia Soto, C., & Mendes, E. (1999) Robust Rotor Flux, Rotor Resistance and Speed Estimation of an Induction Machine Using the Extended Kalman Filter. IEEE ISIE'99, Slovenie: International Symposium on Industrial Electronics, Vol. 2, pp. 742-746.

# **Chapters in Books**

#### International

• El Moucary, C., & El Hassan, B. (2013) "Watermark Singular-Values Encryption and Embedding in the Frequency Domain". Innovations and Advances in Computer, Information, Systems Sciences, and Engineering, Vol. 152, pp. 989-999, DOI: 10.1007/978-1-4614-3535-8\_82, Springer New York Press.