

## Luay Shahin

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- CONTACT INFORMATION** Palestine Polytechnic University  
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- RESEARCH INTERESTS** **Development of measurement techniques for gas sensors and characterization of sensor materials**
- ACADEMIC APPOINTMENTS** **Assistant Professor,**  
Palestine Polytechnic University January 2015 to present  
College of Applied Sciences  
• Applied Electronics and Physics Department
- EDUCATION** **University of Siena, Siena, Italy**  
Ph.D., Information Engineering and Science, December 2014  
• Thesis Topic: *Versatile measurement system for the characterization of gas sensing materials*  
• Adviser:  
Professor Santina Rocchi,  
Professor Ada Fort  
• Area of Study: Electronics and Measurements
- University of Detroit Mercy, Detroit, USA**  
M.Sc., Electrical and Computer Engineering, December 2003
- Al-Mustansiriya University, Baghdad, Iraq**  
B.Sc., Electrical Engineering, July 1998
- BOOK CHAPTERS** [1] Addabbo, T., F. Bertocci, A. Fort, M. Mugnaini, L. Shahin, V. Vignoli, S. Rocchi, R. Spinicci, M. Gregorkiewitz. NOx Sensors Based on YCoO3 Perovskite. D. Compagnone et al(Ed.), *Sensors: Lecture Notes in Electrical Engineering*, ch.38, pp.211–215. 2015. Springer International Publishing. doi:10.1007/978-3-319-09617-9\_38
- REFEREED JOURNAL PUBLICATIONS** [2] Bertocci, F., A. Fort, V. Vignoli, L. Shahin, M. Mugnaini, and R. Berni. Assessment and Optimization for Novel Gas Materials Through the Evaluation of Mixed Response Surface Models. *Instrumentation and Measurement, IEEE Transactions on*, 64(4):1084–1092, April 2015. doi:10.1109/TIM.2014.2364106
- [3] Addabbo, T., F. Bertocci, A. Fort, M. Mugnaini, L. Shahin, V. Vignoli, R. Spinicci, S. Rocchi, M. Gregorkiewitz. An Artificial Olfactory System (AOS) for Detection of Highly Toxic Gases in Air Based on YCoO3. *Procedia Engineering*, 87:1095–1098, 2014. doi:10.1016/j.proeng.2014.11.355
- [4] Addabbo, T., F. Bertocci, A. Fort, M. Mugnaini, L. Shahin, V. Vignoli, S. Rocchi. A DDS-based Multi-harmonic Frequency Meter for QCM Sensor Applications. *Procedia Engineering*, 87:288-291, 2014. doi:10.1016/j.proeng.2014.11.664

- [5] Addabbo T., F. Bertocci, A. Fort, M. Mugnaini, V. Vignoli, L. Shahin, S. Rocchi. High accuracy characterisation system for conductometric metal oxide gas sensors. In: *International Journal of Industrial Electronics and Drives*, 1(3):132-144, 2014.
- CONFERENCE PUBLICATIONS
- [6] Shahin, L., F. Bertocci, A. Fort, M. Mugnaini, S. Rocchi, V. Vignoli. A new wireless interface for resistive chemical sensors. *11th International Multi-Conference on Systems, Signals and Devices (SSD)* 11-14 Feb, 2014. doi:10.1109/SSD.2014.6808844
- [7] Bertocci, F., A. Fort, M. Mugnaini, S. Rocchi, L. Shahin, V. Vignoli. High accuracy measurements of new conductometric metal oxide gas sensors by efficient control of working conditions. In: *12th IMEKO TC10 Workshop on Technical Diagnostics: New Perspective in Measurements, Tools and Techniques for Industrial Applications*, 124–128, 2013.
- [8] Addabbo, T., Bertocci F., A. Fort, M. Mugnaini, S. Rocchi, V. Vignoli, L. Shahin. HMM used for component parameters apportionment. In: *11th International Multi-Conference on Systems, Signals and Devices (SSD)* , 11-14 Feb. 2014. doi:10.1109/SSD.2014.6808818
- TEACHING EXPERIENCE
- Palestine Polytechnic University**, Al-Khaleel, Palestine
- Instructor* **January 2005 to January 2012**
- Instructor for several courses in applied electronics department
- University of Detroit Mercy**, Detroit, US
- Teaching Assistant* **September 2001 to August 2003**
- Instructor for Electronics and Digital Circuits Laboratories
- PROFESSIONAL EXPERIENCE
- Semiconductor Hybrid Assembly, Inc**, Wixom, MI (USA)
- Product Engineer* **January 2004 to September 2005**
- Effectively and efficiently operate SMT machine, ensuring quality control.
  - Design and specify hardware including, but not limited to, enclosures, precision mechanisms, castings, tools, fixtures, mountings, microwave electronic packaging, plated through hole and SMT printed circuit boards.
  - Coordinating the production of drawings packages for the manufacture of equipment and its installation.