

4. PUBLICATIONS

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Paiella, R., “Intersubband Transitions in Quantum Structures”, *Nanoscience and technology series*, McGraw Hill; **Omar Manasreh** – Book Series Editor

Sohraby, K., D. Minoli, T. Znati, “Wireless Sensor Networks: Technology and Protocols”, John Wiley and Sons, 2007, ISBN: 970-0-471-74300-2.

Tomm, Jens and Juan Liminez, “Quantum Well Laser Array Packaging”, *Nanoscience and technology series*, McGraw Hill; **Omar Manasreh** – Book Series Editor

Varadan, V. K., “Neuroelectronics and Neurosurgery”, John Wiley, in press

Varadan, V. K., “Polymer Microsensors and MEMS for Biomedical Applications”, John Wiley, in press

Varadan, V. K. and L. F. Chen, “Functionalized Magnetic Nanomaterials for Nanomedicine Applications”, John Wiley, in press

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4.2 Book Chapters

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4.4. Conference Proceedings

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Zhang, X., **S. S. Ang** and C. Carter, "A comparison of test point selection methods using NIST and wavelet transform for a programmable gain amplifier", *IEEE Asian Test Symposium, ATS'07*, Beijing, October 2007

4.5. Lectures

Balda, Juan, "National Center for Reliable Electric Power Transmission", *IEEE Arkansas Section*, Little Rock, AR, May 31, 2007

Balda, Juan, "Centro Nacional para la transmission confinable de energia electrica, un centro dedicado a la electronic de potencia de avanzada", *Universidad Nacional del Sur (Bahia Blanca, Argentina)*, July 20, 2007

El-Ghazaly, Samir, Keynote Speaker at the Plenary Session of the National Radio Science Conference in Cairo Egypt, March 2007

El-Ghazaly, Samir, "Reconfigurable Antennas for Universal Wireless Receivers," Workshop Presentation at IEEE MTT-S Workshop: WFA- Reconfigurable and Smart Antennas, Honolulu, HI, June 2007

El-Shenawee, Madga, Miguel Castro and Oliver Dorn, "On the Stability of Surface Shape Reconstruction Using Microwave Algorithm for 3-D Breast Tumor Based on the Adjoint-Fields Scheme", *IEEE AP-S International Symposium, Honolulu, Hawaii*, June 10-15, 2007

El-Shenawee, Madga, Oliver Dorn and Miguel Castro, "Reconstruction of 3-D Irregular Shape of Breast Cancer Tumor Using the Adjoint-Field Scheme in the Microwave Imaging Algorithm", *International Review of Progress in Applied Computational Electromagnetics Conference*, Verona, Italy, March 19-23, 2007

El-Shenawee, Madga, "Microwave Imaging and Detection of Breast Tumor Shape and Development of Tumorigenesis Model", *Biomedical Engineering Form*, University of Arkansas Medical Sciences, Little Rock, AR, June 8, 2007

El-Shenawee, Madga, "Microwave Imaging of Breast Cance", *Electrical and Computer Department*, University of North Carolina, Charlotte, NC, March 23, 2007

El-Shenawee, Madga, “Breast Cancer Research”, *faculty of ICD-Laboratoire de Nanotechnologies et d’ Instrumentation Optique*, University of Troyes, France, July 2007

El-Shenawee, Madga, “Breast Cancer Research”, *faculty of Mathematics Department*, University of Dundee, Scotland, April 2007

Hajihashemi, Mohammad R and **Madga El-Shenawee**, “Breast Shape Reconstruction using Microwave techniques and the level set method”, *24th International Review of Progress in Applied Computational Electromagnetics Conference ACES*, Niagara Falls, Canada, March 30-April 4, 2008

Hassan, Ahmed, Susan Burkett and **Madga El-Shenawee**, “Parametric Investigation of Hilbert Based Artificial Magnetic Conductors”, *24th International Review of Progress in Applied Computations Electromagnetics Conference ACES*, Niagara Falls, Canada, March 30-April 4, 2008

Hassan, Ahmed and **Madga El-Shenawee**, “Mathematical Modeling of Breast Lesion Growth”, *24th International Review of Progress in Applied Computational Electromagnetics Conference ACES*, Niagara Falls, Canada, March 30-April 4, 2008

Jung, S., T. Ji and **V. K. Varadan**, “Low voltage organic strain sensor on plastic using polymer/high K inorganic dielectric”, *International Conference on Microelectronics, MEMS and Nanotechnology*, Australia, December 6, 2007 (invited paper presentation)

Naseem, Hameed A., “Sun – An Inexhaustible Source of Energy”, *Fazle Umar Public School, Koodali, Kerala*, Dec. 18, 2007 (invited)

Naseem, Hameed A., “Importance of Education and its Phenomenal Growth through Writing/Printing”, *Ahmadiyya Youth Organization, Koodali, Kerala*, Dec. 19, 2007 (invited)

Naseem, Hameed A., “Creating a Culture of Learning and Education”, *National Meeting of the Presidents and Education Secretaries of Ahmadiyya Muslim Jamaat, India*, Dec. 26, 2007 (invited)

Reza, Mohammad and **Madga El-Shenawee**, “A comparative study of diffraction tomography methods for breast cancer application”, *IEEE Region 5 Conference*, Fayetteville, AR, April 22-24, 2007

Schaper, L., “Removing Wire: the Ultimate Goal of Systems Packaging”, *IEEE Japan Systems Packaging Workshop*, Hakone, Japan, Jan 28-31, 2008 (Invited)

Schaper, L., “Removing Wire: the Ultimate Goal of Systems Packaging”, *IEEE European Systems Packaging Workshop*, Como, Italy, Jan 29-31, 2007 (Invited Keynote)

Schaper, L., “3-D Electronics: Reasons, Approaches, Processes”, *National Semiconductor Corp.*, Santa Clara, CA, August 8, 2007 (Invited Seminar)

Shumate, Seth and **Madga El-Shenawee**, “Computational Model of Breast Cancer Tumor Growth”, *IEEE Region 5 Conference*, Fayetteville, AR, April 22-24, 2007

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Smith, S. C., W. K. Al-Assadi, and J. Di, “Introduction to Asynchronous Circuits and NULL Convention Logic”, *IEEE Region Technical Conference*, Fayetteville, AR, April 2007 (workshop tutorial)

Smith, S. C., “Design of a Logic Element for Implementing an Asynchronous FPGA”, *15th ACM/SIGDA International Symposium on Field-Programmable Gate Arrays*, February 2007 (oral presentation)

Smith, S. C. and J. Di., “Detecting Malicious Logic Through Structural Checking”, *IEEE Region 5 Technical Conference*, Fayetteville, AR, April 2007 (oral presentation)

Varadan, Vasundara V., “Graeme Milton and the Emperor’s Metamaterial Cloak?” *Milton-Prager Medal Symposium, 44th Annual Meeting, Society of Engineering Science*, College Station, TX, October 23, 2007

Varadan, Vasundara V., “Extraction of Metamaterial Properties from measured S-parameters”, *Metamaterials*, Rome, Italy, October 25, 2007

Varadan, Vasundara V., “Role of Materials in the Development of Devices and Technologies”, University of Idaho, Moscow, ID, November 9, 2007

Varadan, Vasundara V., “Women in Engineering Day”, Panelist, Plenary Session, University of Idaho, Moscow, ID, November 9, 2007

Varadan, Vasundara V., “Role of Materials in the Development of Devices and Technologies”, *RESMIQ Fellow*, Concordia University, Montreal, Canada, July 30-August 3, 2007

Varadan, V. K., “The role of nanotechnology and microelectronics in monitoring and control of cardiovascular diseases and neurological disorders”, *International Conference on Trends in Manufacturing and Automation*, Trichy, India, Jan. 2007 (plenary talk)

Varadan, V. K., “The role of nanotechnology and engineering in medicine”, *International Conference on Smart Materials and Nanotechnology*, Harbin, China, July 2007 (plenary talk)

Varadan, V. K., “Inauguration Address of DRDO Center of Nanotechnology in Life Sciences and Medicine”, *Bharathiar University*, September 2007

Varadan, V. K., “Translational Research in Neurological Disorders”, Sri Ramachandra Postgraduate Medical University, Chennai, Sept. 2007 (plenary talk)

Varadan, V. K., “Nanotechnology, wireless sensors and integrated systems in engineering and medicine”, *International Conference on Trends in Intelligent Electronic Systems*, Sathyabama University, University of Madras, Nov. 2007 (plenary talk, inauguration address)

Varadan, V. K., “Multifunctional intelligent nanosensors, organic electronics and systems for health monitoring of engineering structures and neurological disorders in humans: can we get smarter?” *International Conference on Intelligent Sensors, Sensor Networks and Information Processing*, Melbourne, Australia, December 2007 (plenary talk)

Varadan, V. K., “Micro-and Nano-electronic packaging in engineering, life sciences and medicine”, *International Conference on Microelectronics, MEMS and Nanotechnology*, Canberra, Australia, December 2007 (plenary talk)

Varadan, V. K., “Interconnect enhancement of advanced 3D sensor packaging with carbon nanotubes”, *International Conference on Microelectronics, MEMS and Nanotechnology*, Australia, December 6, 2007 (invited paper presentation)

Woten, Douglas, **Madga El-Shenawee** and John Lusth, “Interpreting Artificial Neural Network Output for the Microwave Detection of Breast Cancer”, *International Review of Progress in Applied Computational Electromagnetics Conference*, Verona, Italy, March 19-23, 2007

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Woten, Douglas, Shruti Pandaraju and **Madga El-Shenawee**, “Breast Skin Effect on Scattered Electromagnetic Fields”, *24th International Review of Progress in Applied Computational Electromagnetics Conference ACES*, Niagara Falls, Canada, March 30-April 4, 2008

Woten, Douglas, Obadiah Kegege, Mohammad R. Hajihashemi, Ahmed Hassan and **Madga El-Shenawee**, “Microwave Detection using Real Measurement Data”, *24th International Review of Progress in Applied Computational Electromagnetics Conference ACES*, Niagara Falls, Canada, March 30-April 4, 2008

Woten, Douglas and **Madga El-Shenawee**, “Effect of Wave Polarization on Breast Cancer Detection”, *IEEE Region 5 Conference*, Fayetteville, AR, April 22-24, 2007

4.6. Patents

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Sohraby, K. – “Method, System and Computer Program Product for Improving System Reliability”, US Pat 7278048, October 2007

Tay, A. O., **S. S. Ang** and E. B. Liao, “Planar Microspring – A Compliant Interconnect Scheme for Wafer-level Packaging”, U.S. patent disclosure #11/361,613, First Office Action, 25 Sept. 2007

Varadan, V. K., H. Yoon and P. T. Hankins: “Design and fabrication methods of dual electrode nanocavity electrochemical sensors”, invention disclosure submitted September 2007

Varadan, V. K., T. Ji and S. Jung, “Organic semiconductor based sensors”, patent disclosure submitted September 2007