

PUBLICATIONS – FISCAL YEAR 2010

I. Books

Gardner, J., **V. K. Varadan**, and O. Awadelkarim, “Microsensors, MEMS and Smart Devices,” (in Korean), *John Wiley*, 2009.

Smith, S., C., and J. Di, “Designing Asynchronous Circuits using NULL Convention Logic (NCL),” *Synthesis Lectures on Digital Circuits and Systems*, Vol. 4/1, July 2009, Morgan & Claypool Publishers (doi: 10.2200/S00202ED1V01Y200907DCS023). (sole author of 6 of the 7 chapters and co-author of the other chapter)

Varadan, V. K., “Handbook of Smart Systems,” *Taylor and Francis*, 2009.

Varadan, V. K., (Editor), “Nanosensors, Biosensors and Info-Tech Sensors and Systems,” *SPIE Publishing*, Bellingham, Washington, 2009.

Varadan, V. K., L. Chen and J. Xie, “Magnetic nanomaterials, nanotubes and nanomedicine,” Chapter 9 in *Nanomedicine*, *Artech House*, 2009.

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.

Varadan, V. K., S. Pillai, D. Mukherji, M. Dwivedi, and L. F. Chen, “Nanoscience and technology in engineering and medicine,” *World Scientific Publishing*, 2010.

Varadan, Vijay K., A. S. Pillai, D. Mukherji, M. Dwivedi, and L. Chen, “Nanoscience and Nanotechnology in Engineering”, *World Scientific Publishing Company*, 2010.

Wang, C., M. Daneshmand, and **K. Sohraby**, “RFID Architecture and Protocol Handbook of Modern Telecommunications (2nd Edition),” Edited by Patricia Morreale and Kornel Terplan, ISBN 978-1-4200-7800-9, 2009.

II. Book Chapters

Chen, Linfeng, Jining Xie, Hargsoon Yoon, Malathi Srivatsan, Robert E. Harbaugh, and **Vijay K. Varadan**, “Biohybrid circuits: nanotransducers linking cells and neural electrodes”, Chapter 7, *Biohybrid Systems*, John Wiley, (In press).

Ji, Taeksoo, “Nanoscience and nanotechnology in engineering” Chapter 8, *Organic Electronics*, *World Scientific Publishing Co.*, July 2009.

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Varadan, Vijay K., Journal of Nanotechnology in Engineering and Medicine, American Society of Mechanical Engineers (ASME), Journal Editor in Chief, (Launched in 2009 and published the first issue in February 2010. This is quarterly publication as regular technical journal.)

Xie, Jining, Linfeng Xie, and **Vijay K. Varadan**, “3D helical nanomaterials: synthesis, properties and applications”, *Encyclopedia of Nanoscience and Nanotechnology* (second edition), American Scientific Publishers, 2010.

Xie, J., L. Chen, and **V. K. Varadan**, “3D helical nanomaterials: synthesis, characterization and applications,” Chapter 10 in *Encyclopedia of Nanoscience and Nanotechnology*, 2009.

III. Refereed Articles

Al-Shukri, S. H., R.B. Lenin, S. Ramaswamy, A. Anand, V.L. Narasimhan, J. Abraham, and **V. K. Varadan**, “Performance Modeling and Analysis of Consumer Classes in Large Scale Systems”, *SPIE*, vol. 7291, *Nanosensors, Biosensors and Info-Tech Sensors and Systems*, pp. 72910Y-1 to 72910T-11, 2009.

Ang, S. S., B. L. Rowden, J. C. Balda, and H. A. Mantooh, “Packaging of High-Temperature Power Semiconductor Modules,” *Electrochemical Society Transactions*, submitted, Dec. 2009.

Carr, J., D. Hotz, **J. Balda**, H. A. Mantooh, A. Ong, and A. Agarwal, “Assessing the Impact of SiC MOSFETs on Converter Interfaces for Distributed Energy Resources,” *IEEE Transactions on Power Electronics*, vol. 24, no. 1, pp. 260 – 270, Jan. 2009.

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Feng, Y., W. Zheng, A. M. Francis, and **H. A. Mantooth**, "Algorithms for Automatic Model Topology Formulation," *IEEE Trans. on Computer-Aided Design*, vol. 28, no. 4, pp. 502-515, April 2009.

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Kumar, P., P. Rai, G. N. Mathur, and **V. K. Varadan**, “Low voltage pentacene OTFT integration for smart sensor control circuits”, *SPIE*, vol. 7646, *Nanosensors, Biosensors and Info-Tech Sensors and Systems*, pp. 76460M-1 to 76460M-9, 2010.

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VI. Unrefereed Publications & Proceedings

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V. Invited Lectures

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VI. Other Lectures, Papers and Presentations

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VII. Other Creative Endeavors

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