



Hari Krishna GARG

MBA (1995, Syracuse), PhD & MEng (1985 & 1983, Concordia), BTech (1981, IIT Delhi)

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LEADERSHIP POSITIONS IN LAST FIVE YEARS

- **Group Head**, ECE Dept, NUS (till Jan 2007). Group Head of the Communication and Information Engineering (CIE) Group; leading management of all infocomm & related activities in the ECE Dept.
- **Senior Faculty Member**, NUS Graduate School for Integrative Science and Engineering. This is a very prestigious appointment given to a highly selected group of faculty members across the entire NUS.
- **Leading** the JWCC (Java Wireless Competency Center), a multi-million dollar R&D program for the ECE Dept. The project has since been completed.
- **Co-Chair Accreditation Committee**. This is for accreditation of BEng programs from international and local accreditation bodies (ABET, IEE, & EAB).
- **Founder**. (i) PurpleACE Pte Ltd in Singapore, a wireless innovations company; secured Series A funding of several million dollars from Siemens Mobile Acceleration, Germany. (ii) Fatte Telecom Pte Ltd in Singapore, a wireless innovations company; this company was acquired in 2006.

RESEARCH ACTIVITIES & INTERESTS

Mobile/wireless Comm Systems, Digital Watermarking, Multi-media Comms, Value-added Services.

RECENT REPRESENTATIVE PUBLICATIONS

- **Garg HK, Digital Signal Processing Algorithms: Number Theory Convolution, Fast Fourier Transforms and Applications**, CRC Press, USA, 637 pages, 1998.
- **Garg HK**, "Cyclotomic polynomial factorization in finite integer rings with applications to digital signal processing," **IEEE Transactions on Circuits and Systems**, pp. 608-616, 1999.
- **Garg HK, Wei T**, "On fast algorithms for one-dimensional digital signal processing in finite integer and complex integer rings," **Circuits, Systems, Signal Processing**, pp. 619-634, 2001.
- Wang F, Nallanathan A, **Garg HK**, "Impact of Interference on the performance of a Bluetooth piconet in the 2.4 GHz ISM band," **IEE Electronics Letters**, pp. 1721-1729, 2002.
- Ng TM, **Garg HK**, "Maximum Likelihood Detection in DWT Domain Image Watermarking Using Laplacian Modelling," **IEEE Signal Processing Letters**, pp. 285-288, 2005.
- Peng AW, **Garg HK**, "A Novel Channel Estimator with Integrated Fading Rate Estimation for Yurbo Decoding in Flat Fading Channel," **European Transactions on Telecommunications**, pp. 189-197, 2005.
- Chong HF, Motani M, **Garg HK**, "Generalized Backward Decoding Strategies for the Relay Channel," **IEEE Transactions on Information Theory**, pp. 394-401, 2007.

HONORS & AWARDS

- Received the 1983 FA Gerard Prize for the best graduating student in the Faculty of Engineering and Computer Science, Concordia University, Canada.
- United Nations Industrial Development Organization (**UNIDO**) Expert on assignment to India in 1993.
- Teaching Excellence Awards in the Faculty of Engineering, NUS 2000, 2001.