The Master of Engineering Program for QUALCOMM, Inc. Administrative Committee

Dr. R. Lal Tummala, ECE Professor and Chair
Dr. R. Lal Tummala received his PhD. in Electrical Engineering from Michigan State University. He was appointed as Professor and Chair of the Department of electrical and Computer Engineering as San Diego State University in August 2002. Before joining SDSU, he spent many years at Michigan State University as Full Professor of Electrical and Computer Engineering and Director of the Interdisciplinary Manufacturing Engineering Program. Dr. Tummala has made outstanding contributions to engineering education both as a teacher and researcher. In 2007, Dr. Tummala received the Outstanding Engineering Educator award from the San Diego Engineering Council, and in 2008 he received the Outstanding Research Contribution to Manufacturing Engineering Education Award, presented at the 9th Global Congress on Manufacturing & Management.

Dr. Gordon Lee, ECE, Graduate Director
Dr. Lee’s research interests are in the areas of robotics and control systems, particularly intelligent evolutionary control algorithms, fuzzy systems and neural networks, as well as in the applications of these methods to mobile robotic colonies. He has published over 250 technical documents; Dr. Lee is a senior member of IEEE, a member of AIAA and a senior member of ISCA. He is also currently an Associate Editor for the International Journal on Intelligent Automation and Soft Computing. Dr. Lee received his Ph.D. from the University of Connecticut.

Dr. David Ely, Graduate Director, College of Business
David Ely is a Professor of Finance at San Diego State University and teaches courses in financial institutions and business economics. His research centers on the regulation and management of financial institutions, as well as financial markets. Current research focuses on the impact of deregulation on the operations of financial services companies and local economies, small business lending by commercial banks and by credit unions, and the efficiency of credit unions. Professor Ely’s PhD is in Economics from The Ohio State University.
The Master of Engineering Program for QUALCOMM, Inc. will be taught by some of the brightest minds from the department of Electrical and Computer Engineering at San Diego State University, as well as distinguished members of the faculty of the College of Business Administration. A brief Biography of each faculty member can be found below.

Premanand Chandramani, Ph.D. (University of Delaware)

Dr. Premanand Chandramani received his Ph.D. in Electrical and Computer Engineering from University of Delaware in May 2004. He has since been with San Diego State University as an Assistant Professor in the Department of Electrical and Computer Engineering. His current research interests include Analog mixed-signal design (ADC, DAC and Op. Amps), Re-configurable computing using FPGAs for system-on-a-chip (SOC) designs, VLSI design for optoelectronic devices (for optical interconnects) and MEMS devices. He is currently advising several graduate students towards their theses research in the topics of data converters, low noise amplifiers for (LNA) for ultra wideband applications, low power CMOS amplifiers, and micro-pipeline architectures. He has published over 20 journals and over 25 conference publications. He is a member of the IEEE. Dr. Chandramani teaches courses in digital design, ASIC design and in CMOS mixed-signal design.

A. Ege. Engin, Ph.D. (University of Hannover)

Dr. Ege Engin received his B.S. and M.S. degrees in electrical engineering from Middle East Technical University, Ankara, Turkey, and from University of Paderborn, Germany in 1998 and 2001, respectively. From 2001 to 2004 he was with the Fraunhofer-Institute for Reliability and Microintegration in Berlin. During this time he also received his Ph.D. degree with Summa Cum Laude from the University of Hannover, Germany. From 2005 to 2008, Dr. Engin was with the Packaging Research Center at Georgia Tech, where he was an Assistant Director of Research. Since 2008, he is an Assistant Professor in the Electrical and Computer Engineering Department of San Diego State University. He has more than 60 publications in journals and conferences in the areas of signal and power integrity modeling and simulation, 4 patent applications, and has presented tutorials in international conferences in the area of high-speed design. He is the co-author of the book "Power Integrity Modeling and Design for Semiconductors and Systems," published by Prentice Hall in 2007.

Madhu S. Gupta, Ph.D. (University of Michigan)

Dr. Madhu Gupta is the RF Communication Systems Industry Chair Professor in the Department of Electrical and Computer Engineering at San Diego State University, San Diego, Calif.; the Director of the Communication Systems and Signal Processing Institute at the university; and an Adjunct Professor of Electrical and Computer Engineering at University of California, San Diego. He received the Master's and Ph.D. degrees from The University of Michigan, and has previously served as a faculty member at Massachusetts Institute of Technology; University of Illinois; University of California at Santa Barbara; University of California at Los Angeles; and Florida State University; before his current position in San Diego. In addition, he has also worked in industry as a Senior Member of the Technical Staff and a Program Manager at Hughes Research Laboratory in Malibu, and at Hughes Aircraft Company in Torrance and El Segundo, California. Among his many awards are the Northrop Grumman Excellence in Teaching Award for 2004, the University Alumni Association Award for Outstanding Faculty Contributions in 2004, and the Distinguished Educator Award from the IEEE Microwave Theory & Techniques Society in 2008.
Fredric J. Harris, Ph.D. (Aalborg University)

Dr. Fred Harris holds the Signal Processing Chair of the Communication Systems and Signal Processing Institute at San Diego State University where since 1967 he has taught courses in Digital Signal Processing and Communication Systems. He holds a number of patents on digital receiver and DSP technology and lectures throughout the world on DSP applications. Dr. Harris consults for organizations requiring high performance, cost effective DSP solutions. He is also an adjunct member of the IDA-Princeton Center for Communications Research.

He has written over 150 journal and conference papers, the most well known being his 1978 paper “On the use of Windows for Harmonic Analysis with the Discrete Fourier Transform”. He is the author of the book Multirate Signal Processing for Communication Systems and has contributed to a number of other books on DSP applications.

In 1990 and 1991 he was the Technical and then the General Chair of the Asilomar Conference on Signals, Systems, and Computers and was Technical Chair of the 2003 Software Defined Radio Conference and of the 2006 Wireless Personal Multimedia Conference. In 2006 he received the Software Defined Radio Forum’s “Industry Achievement Award”. Dr. Harris is also the Co-Editor-in-Chief of the Elsevier DSP Journal.

Jay H. Harris, Ph.D. (University of California, Los Angeles)

Dr. Harris began his technical education with a degree in Electrical Engineering from the Polytechnic Institute of New York (BSEE), followed by Cal Tech (MS), and UCLA (Ph.D.). He was a New York State Scholar, and, twice, a Howard Hughes Fellow. He was also a Fulbright Fellow at the University of Paris at Orsay. Dr. Harris began his professional career when he joined the Hughes Aircraft Company in 1958.

Dr. Harris’ academic career began at the University of Washington, where he served as Professor of Electrical Engineering from 1966 to 1974. He served as a Traveling Lecturer for the Optical Society of America and as a Visiting Lecturer at the Weizmann Institute in Israel. He was named a Fellow of the IEEE for his contributions to Integrated Optics. Dr. Harris served as Director of the Devices and Waves Program, as well as other programs, at the National Science Foundation from 1974 to 1980. He was the recipient of an NSF Special Achievement Award in 1980.

Dr. Harris served as Dean of the College of Engineering at SDSU from 1980-82. Dr. Harris presently serves as Professor of Electrical and Computer Engineering at SDSU with interests in VLSI design and video signal processing. He has received half a dozen teaching awards while at SDSU, including the 2001 TRW Award for Excellence in Teaching.

Santosh Nagaraj, Ph.D. (Purdue University)

Dr. Santosh Nagaraj received his B. Tech. degree in Electrical Engineering from the Indian Institute of Technology, Madras, India, in 2000, and his PhD degree from Purdue University, West Lafayette, IN in 2005.

Since 2005, he has been on the faculty of San Diego State University where he is currently an Assistant Professor in the department of Electrical and Computer Engineering. His research interests are primarily in the areas of communication system design, broadband modulation and demodulation techniques, and signal processing. He is currently working on adaptive modulation and coding (AMC) for orthogonal frequency division multiplexing (OFDM) systems with feedback and on design of efficient coding techniques for block fading channels.

Dr. Nagaraj has served as a reviewer for several prestigious journals such as IEEE Transactions on Communications, IEEE Transactions on Wireless Communications, etc. He has served as a reviewer for several professional conferences as well. He has also served on the technical program committee for the IEEE Wireless Telecommunications Symposium in April 2007.

In addition to his active research and professional activities, Dr. Nagaraj has been a dedicated teacher committed to excellence in undergraduate and graduate teaching. In 2007, he received the Outstanding Faculty Award from San Diego State University's College of Engineering. In 2008, he received the Northrop Grumman Excellence in Teaching Award.
Nikhil (Nik) Varaiya, Ph.D. (University of Washington, Seattle)

Dr. Nik Varaiya is Professor of Finance at SDSU. He has taught in the EMBA program since 1990, and is Chair of the EMBA Executive Committee. His additional teaching experience has included the Cox School of Business, Southern Methodist University in Dallas and the School of Business Administration, University of Washington in Seattle. He has also taught extensively in executive programs of the Southwestern Graduate School of Banking at Southern Methodist University and SDSU. Dr. Varaiya has been the recipient of the Outstanding EMBA Faculty Award on numerous occasions.

His research interests are in the areas of entrepreneurial finance, mergers and acquisitions, valuation, and strategic management. His articles have appeared in such publications as Banker’s Magazine, Financial Executive, Financial Analysts Journal, Journal of Finance, Management Science and Strategic Management Journal. He has completed a study, Share Repurchases: Causes, Consequences, and Implementation Guidelines for the Financial Executives Research Foundation. Nikhil is past President and currently serves as Vice President of Professional Development of the San Diego Chapter of Financial Executives International and has been a member of its Board since 1991. He is a past Chairman, Board of Directors of the USE Credit Union and served as a Board member from 1993 to 2000.

Richard D. Brooks MBA (San Diego State University)

Richard Brooks is the Director of the Centre for Integrated Marketing Communication and Co-director of the Entrepreneurial Management Center, working as a liaison to the southern California business community. At SDSU, he teaches Marketing Planning, Communication Planning, and New Product Development.

He brings a vast array of experience to the Centre for Integrated Marketing Communications having previously worked as Executive Vice President, General Manager of McCann-Erickson, San Diego with an overall management responsibility of the $55 million advertising and public relations agency which manages marketing communications for such brands as L’Oreal, Nestle, General Motors, Exxon, and Coca-Cola. With McCann-Erickson, Brooks spent much of his career in the area of services marketing and consumer product brand building. Furthermore, he managed the Integrated Marketing Communications programs of: Bumble Bee Seafoods, Daiwa Sports Equipment, PSA Airline, The Zoological Society of San Diego, San Diego Trust and Savings Bank, and WD-40 Company.

Richard Brooks received both his bachelors and MBA-Marketing from San Diego State University. As a result, he truly understands the needs of the students, faculty and surrounding businesses.

Alex F. De Noble, Ph.D. (Virginia Polytechnic Institute and State University)

Dr. Alex F. De Noble is a professor of management at SDSU and has taught in the EMBA program since 1990. He is actively involved in teaching and research in the areas of strategic management and entrepreneurship.

He has published articles in the Journal of Business Venturing, the Journal of High Technology Management Research, International Marketing Review, and Entrepreneurship: Theory & Practice. He has conducted training programs with such companies as FHP, Inc.; Bayshore Medical Group; West Johnston Turnquist and Schmitt, CPAs; Sharp Healthcare; NEC Electronics, Inc.; and Banco Nacional De Comercio Exterior, S.N.C. He has consulted with companies including: Stratenege Cloning Systems; The Naval Air Station, Miramar; Sato Travel; and Sindbad Corporation.