



Dr. B. Don Russell

Dr. B. Don Russell is the Director of the Power System Automation Laboratory. The laboratory is committed to developing advanced protection, monitoring and control systems for electric distribution networks.

Current projects include Detection of High Impedance Faults on Distribution lines; Distribution System Fault Anticipator and Locator.

Russell received his Ph.D. in electrical engineering in 1975 from the University of Oklahoma and has been at Texas A&M since 1976. He is a Professor and also serves as the Associate Vice Chancellor and Associate Dean for Research of the Dwight Look College of Engineering at Texas A&M University.

He is a Fellow of the IEEE and the Past President of the IEEE Power Engineering Society. In addition, he also serves as Editor-in-Chief of the journal *Electric Power Systems Research* and chairs the annual Conference for Protective Relay Engineers.

Russell was granted diplomate status in the American Board of Forensic Engineering and Technology and has been awarded several teaching and research honors including the Halliburton Education award and the Dresser Industries Professorship. He also was recently elected as a member of the National Academy of Engineering and was awarded a Third Millennium Medal from IEEE for his outstanding contributions to engineering.



Dr. Chanan Singh

Dr. Chanan Singh joined the Department of Electrical Engineering at Texas A&M University in 1978 as an assistant professor. He quickly rose to the rank of professor and was director of the Electric Power Institute before becoming department head. From 1995 to 1996 he served as the Director of the Power Program at the National Science Foundation.

His interests include Power System Reliability, Production Costing, Power Quality and Design for Quality.

He received his bachelor's degree from Punjab Engineering College in 1963 and his master's and Ph.D. in electrical engineering from the University of Saskatchewan, Canada, in 1970 and 1972 respectively. Later, the University of Saskatchewan conferred on him the D.Sc. in 1997 for his research contributions to the field of power systems.

Some honors and awards include being named the Institute of Electrical and Electronics Engineers (IEEE) Outstanding Power Engineering Educator, being awarded the Association of Former Student's Distinguished Achievement Award for Research and earning the Halliburton and Dresser Professorships for excellence in teaching and research. He also was named an IEEE Fellow and a Texas Engineering Experiment Station (TEES) Senior Fellow.



Dr. Hamid Toliyat

Dr. Hamid Toliyat received his Ph.D. from the University of Wisconsin-Madison in 1991. He is currently an associate professor in the Department of Electrical Engineering at A&M. He has received the TAMU Select Young Investigator Award in 1999, the Eugene Webb Faculty Fellow Award in 2000, the

Space Act Award by NASA in 1999 and the Schlumberger Foundation Technical Award in 2000 and 2001.

Toliyat's current projects include multiphase electric machines for traction/propulsion and wind energy; fault diagnosis of electric machines; design of special purpose electrical machines and low cost motor drive solutions for commercial and residential applications. His research team has developed five-phase induction and reluctance motor drives for the U.S. Navy and the State of Texas, and have developed low cost motor drive solutions for appliance industries.

Toliyat is an editor of *IEEE Transactions on Energy Conversion*, an associate editor of *IEEE Transactions on Power Electronics* and a member of the editorial board of *Electric Power Components and Systems Journal*. He is a senior member of IEEE, is serving on several IEEE committees and is a member of Sigma Xi. He is the recipient of the 1996 IEEE Power Engineering Society Prize Paper Award, has published more than 100 technical papers in journals and conferences and has three pending patents.



Nancy Reichart

Staff Assistant

Room 323C WERC

Telephone: (979) 845-1814

Fax: (979) 845-9887

email: nancy@ee.tamu.edu

Nancy Reichart is a Staff Assistant in the electrical engineering department for the Electric Power and Power Electronics Institute.

Nancy has worked at Texas A&M University since 1985 in the Departments of Chemistry, Physics and Electrical Engineering.

In 1999 Nancy received the Outstanding Support Staff Award in the electrical engineering department. Some of her interests include reading, needlework, flower arranging, gardening, word puzzles and playing the piano.

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Electric Power and Power Electronics Institute
Department of Electrical Engineering
TAMU 3128
Texas A&M University
College Station, TX 77843-3128

Texas A&M University

Department of Electrical Engineering



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Dr. Ali Abur

Dr. Ali Abur began working at Texas A&M in 1986 and currently serves as professor.

He obtained his B.S. in electrical engineering from the Middle East Technical University, Ankara, Turkey in 1979, his M.S. and Ph.D. degrees from The Ohio State University in 1981 and 1985 respectively.

Current research interests include power system state estimation, electrical transients and fault location, simulation and modeling for power quality assessment.

He conducted several projects funded by the NSF in the areas of robust state estimation, network observability analysis and the use of ampere measurements in state estimators. He also had projects involving issues of power quality and fault location. He has developed two graduate level courses on power system state estimation and electromagnetic transients. Abur has been an invited lecturer in short courses on both of these subjects in different parts of the world including Europe, South Africa, and North America. He has also been a consultant for power system software development firms.

He is a member of the Computer and Analytical Methods Subcommittee of the IEEE PES. He was the recipient of the National Science Foundation's Research Initiation Award in 1988.



Dr. Karen Butler-Purry

Dr. Karen Butler-Purry joined Texas A&M University as visiting assistant professor in 1994 and now serves as associate professor. She also serves as assistant director of the Power System Automation Laboratory. She received her Ph.D. from Howard University in 1994.

Current Projects include Predictive Maintenance and Incipient Failure Detection; New Techniques for Maintaining Reliability in the Restructured Electric Utility Industry; and Predictive Reconfiguration of Shipboard Power Systems.

Butler's team is designing and developing analytical signal processing techniques and artificial intelligence-based methods that perform computer-based online incipient fault detection and predictive maintenance on distribution systems, thereby improving their reliability. Also, her group is developing advanced computer-based protection and control for shipboard power systems.

In addition, she received a 1999 Office of Naval Research Young Investigator Program Award, a 1996 National Science Foundation Faculty Early Career Award and was named a 1998-99 Montague Center for Teaching Excellence Scholar.

She supervises 10 PhD students, three master's students and three undergraduates.



Dr. Mehrdad Ehsani

Dr. Mehrdad Ehsani joined Texas A&M University in 1981 and currently is professor and director of the Advanced Vehicle Systems Research Program in the College of Engineering. He has also founded the power electronics and motor drives program at A&M. He has won numerous university and IEEE awards, including Halliburton Chair of Engineering and Dresser Industries Chair of Engineering.

Ehsani and his students are developing the next generation of industrial and consumer product motor drives to reduce cost and increase efficiency and reliability. Current Projects include Advanced Switched Reluctance Motor (SRM) Drives, Advanced Brushless DC (BLDC) Motor Drives, Aerospace Power Systems Stability Enhancement and Electric and Hybrid-Electric Vehicle Traction System Design.

Ehsani has supervised more than 50 Ph.D. and Masters students over the years. He has authored more than 300 publications, two books, an IEEE standards book and has more than 25 U.S. and EC patents and numerous technical reports.

Ehsani has served as chairman and organizer of many IEEE committees, conferences and administrative committees. He is a fellow of IEEE, and is a distinguished speaker of the IEEE Industrial Electronics Society and Vehicular Technology Society. He also is associate editor of several IEEE and other journals.



Dr. Prasad Enjeti

Dr. Prasad Enjeti joined Texas A&M in 1988 and currently serves as professor. He has established a new Power Quality Laboratory, and a state-of-the-art research facility with extensive simulation and test capabilities. In 2000 he was elected to Fellow by the IEEE for "Contributions to solutions of utility interface problems in power electronic systems and harmonic mitigation."

Current Projects include utility interface issues including converters for motor drives and power supplies, development of new "clean power" converters and UPS systems.

Power quality research includes active filter development for harmonic current cancellation/dynamic voltage restoration; ride-through technology assessment for voltage-sags, short-term power interruptions with advance energy storage devices and their implementation; assessment of dv/dt related failures in motor drive systems.

With the increased use of nonlinear loads, harmonic distortion of voltages and currents (generated either externally or internally to an industrial or commercial facility) are common. Enjeti's research team is currently developing several new harmonic free converter systems for the 1kW to 500kW range as well as active harmonic filtering schemes.

Currently Enjeti supervises 11 Ph.D. students and one visiting scholar. An author of over 100 publications, Enjeti has received four best paper awards from IEEE and four U.S. patents.



Dr. Garng Huang

Dr. Garng Huang joined Texas A&M in 1984, where he currently serves as Professor and Director of Graduate Studies. He obtained his B.S. and his M.S. from National Chiao Tung University, Hsinchu, Taiwan and Ph.D. degrees from Washington University, St. Louis in 1975, 1977 and 1980 respectively.

Current Interests include modeling, monitoring and control of power systems, distributed state estimation, stability margin assessment, distributed database for online monitoring and control, auxiliary service, auction based dispatch, transaction based analysis and transmission rights for deregulated power industry. He conducted projects funded by NSF, EPRI, DoD, DOE, the Texas advanced research program, Texas advanced technology program and industry in the above areas. He also had projects on mobile networks, optimal routing control for large computer networks and optimal power delivery for deregulated environment.

He has been teaching graduate level courses on power system analysis, control of power systems and power system stability analysis. He developed a course on parallel/distributed computer algorithms. He has developed a graphical power system stability and transaction based power flow analysis package for educational use.

He is a member of the Computer and Analytical Methods, Control, and Stability Subcommittees of the IEEE PES. He was an associate editor of IEEE Trans. on Automatic Control.



Dr. Mladen Kezunovic

Dr. Mladen Kezunovic joined TAMU in 1987 where he presently holds the Eugene E. Webb Professorship in electrical engineering. He also serves as coordinator of the Electric Power and Power Electronics Program at TAMU and is director of the Electric Power and Power Electronics Institute. In addition, he is the site director for PSERC, an NSF I/UCRC consortium.

Current Projects include Advanced Tools for Power Quality Assessment; New Approaches to Preventing Wide-Area Power System Outages; Power Engineering Education. His long-term research interest is in protective relaying, substation automation, digital simulators for relay testing and application of intelligent techniques.

Kezunovic received his Dipl. Ing degree from the Univ. of Sarajevo, and his M.Sc and Ph.D. from the Univ. of Kansas, in 1974, 1977 and 1980 respectively. He has worked for Energoinvest Company in former Yugoslavia and Westinghouse Electric in the U.S. He was a visiting associate professor at Washington State University during the 1986/87 school year.

Kezunovic has supervised more than 20 graduate students, published more than 230 journal and conference papers and has given more than 50 invited lectures around the world. He is a Fellow of IEEE, a member of CIGRE-Paris and a registered Professional Engineer in the state of Texas.