

Short CV:



MEHDI FERDOWSI received the B.S. degree in electronics from the University of Tehran in 1996, the M.S. degree in electronics from Sharif University of Technology, Tehran, Iran in 1999, and the Ph.D. degree in electrical engineering from the Illinois Institute of Technology, Chicago, in 2004. He joined the faculty of the Missouri University of Science and Technology, Rolla, in August 2004, where he is currently a Professor in the Electrical and Computer Engineering Department. His research interests are in the areas of power electronics, energy storage, smart grid, vehicular technology, and wide bandgap devices. He was a recipient of a National Science Foundation CAREER Award in 2007. He has been involved in numerous research and educational projects sponsored by the National Science Foundation, U.S. Department of Energy, U.S. Department of Transportation, U.S. Department of Education, U.S. Department of Defense, and

Sandia National Laboratories. Since 2004, he has been successful in securing more than \$5 million in funding—his individual share. The published results of his scholarly activities include 2 book chapters and over 140 archival journals and conference proceedings. He has graduated more than 30 M.Sc. and Ph.D. students. Dr. Ferdowski and his students won a best paper award at the IEEE Vehicle Power and Propulsion Conference in 2008. He is an Associate Editor of the IEEE TRANSACTIONS ON POWER ELECTRONICS.

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Abstract: DC distribution systems—an overview

This talk examines the existing and future dc distribution systems which have a wide range of applications in data centers, telecommunication systems, residential homes, commercial buildings, space crafts, electric vehicles and aircrafts. The advantages and disadvantages of a dc distribution system are compared against their ac counterpart. Also, different dc distribution architectures and bus structures are presented. Dc distribution systems are discussed from the cost, reliability, efficiency, and safety standpoints.