



JOHN HAYES

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BIO

Title: Electric Powertrain: Power Electronics and Drives for Hybrid, Electric and Fuel Cell Vehicles

Dr. John G. Hayes is a senior lecturer specializing in electric vehicles, energy systems, power electronics and drives. He received the B.E. degree from University College Cork (UCC), the M.S.E.E. degree from the University of Minnesota, Minneapolis - St. Paul, the M.B.A. degree from California Lutheran University, and the Ph.D. from University College, Cork in 1986, 1989, 1993 and 1998, respectively. From 1986 to 1988, John held a research fellowship for power electronics under Prof. Ned Mohan at the University of Minnesota. From 1988 to 1990, he worked at Power One Inc. (now ABB Solar), of Camarillo, CA, designing linear and switching ac-dc power converters. In 1990, He joined General Motors Advanced Technology Vehicle (formerly Hughes Aircraft Company and Delco Electronics), in Culver City, and later Torrance, CA, where he worked extensively as a design engineer and technical manager in the fields of propulsion drives and battery charging for electric vehicles, especially for heavy-duty vehicles and the General Motors EV1 electric car. From 1995 to 1997, he pursued a PhD part-time as a Howard Hughes Corporate Fellow while continuing to work as a design engineer at GM. Subsequently, he worked as a technical manager on EV battery chargers and infrastructure. John led a technical team collaborating with Toyota Motor Company to revise the EV inductive charging standard SAE J1772. John joined the academic staff at UCC as a lecturer in late 2000 and currently teaches power engineering and power electronics and drives. His research interests are power electronics, machines, and magnetics for automotive, industrial and renewable energy applications. John directs the Power Electronics Research Laboratory (PERL) at UCC. The focus of PERL in recent years has been on industrial collaborations with global leaders, such as Analog Devices, United Technologies, General Motors, Moog, and SMA Magnetics. John and his co-authors received the William M. Portnoy Award for best paper at IEEE ECCE 2011.

John is the lead author, with co-author Dr. Abas Goodarzi, CEO of US Hybrid in Los Angeles, on a new textbook for university undergraduates and for industry reference. The book is titled *Electric Powertrain: Energy Systems, Power Electronics and Drives for Electric, Hybrid and Fuel Cell Vehicles*. The publisher is John Wiley & Sons and the book was released in January 2018.

