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Johann W. Kolar received his M.Sc. degree in Industrial Electronics and Control Engineering and his Ph.D. degree in Electrical Engineering (summa cum laude / promotio sub auspiciis praesidentis rei publicae) from the Vienna University of Technology, Austria, in 1997 and 1999, respectively. Since 1984, he has been working as independent researcher and international consultant in close collaboration with the Vienna University of Technology, in the fields of power electronics, industrial electronics and high performance drive systems. He was appointed Assoc. Professor and Head of the Power Electronic Systems Laboratory at the Swiss Federal Institute of Technology (ETH) Zurich on Feb. 1, 2001, and was promoted to the rank of Full Prof. in 2004. Dr. Kolar has proposed numerous novel PWM converter topologies and modulation and control concepts, e.g., the VIENNA Rectifier, the Sparse Matrix Converter and the SWISS Rectifier and has supervised and graduated 75+ Ph.D. students. He has published 900+ scientific papers in international journals and conference proceedings, 4 book chapters, and has filed 200+ patents. He has presented 35+ educational seminars at leading international conferences, has served as IEEE PELS Distinguished Lecturer from 2012 – 2016, and has received 35+ IEEE Transactions and Conference Prize Paper Awards, the 2014 IEEE Power Electronics Society R. David Middlebrook Achievement Award, the 2016 IEEE William E. Newell Power Electronics Award, the 2016 IEEE PEMC Council Award, the 2020 European Power Electronics Association Outstanding Achievement Award and 2 ETH Zurich Golden Owl Awards for excellence in teaching. He has initiated and/or is the founder of 4 ETH Spin-off companies. The focus of his current research is on

ultra-compact/efficient WBG PFC rectifier and inverter systems, ultra-high BW switch-mode power amplifiers, multi-port converters, Solid-State Transformers, multi-functional actuators, ultra-high speed / motor-integrated drives, bearingless motors, ANN-based multi-objective design optimization and sustainable systems.

Dr. Kolar is a Fellow of the IEEE, an International Member of the U.S. National Academy of Engineering, a Member of the IEEJ and a member of International Steering Committees and Technical Program Committees of numerous international conferences in the field (e.g. Director of the Power Quality Branch of the International Conference on Power Conversion and Intelligent Motion). He is the founder of the IEEE PELS Switzerland Chapter (2001) and serves as Chairman of the Education Chapter of the European Power Electronics (EPE) Association (since 2001). From 1997 – 2000 he has been serving as Associate Editor of the IEEE Transactions on Industrial Electronics and from 2001 – 2013 as Associate Editor of the IEEE Transactions on Power Electronics. Since 2002 he also is an Associate Editor of the Journal of Power Electronics of the Korean Institute of Power Electronics and a member of the Editorial Advisory Board of the IEEJ Transactions on Electrical and Electronic Engineering.