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A coordinated control strategy of voltage regulation in power system based on multi-agent system

Mohamed Shawky El Moursi

Masdar Institute of Science and Technology, UAE

This abstract presents a coordination algorithm for power systems based on concept of agents and multi agent systems. Agents provide the ability to execute better controllability on large scale systems including power systems. Tertiary and secondary voltage control that allows controllers to regulate the voltage in the power system is designed by agents. Multi agent systems are defined to regulate voltage of the power system.

Biography

Mohamed Shawky received the B.Sc. and M.Sc degrees in Electrical Engineering from Mansoura University, Egypt, in 1997 and 2002 respectively, and the PhD degree in Electrical Engineering from the University of New Brunswick (UNB), New Brunswick, Canada, in 2005. He worked at the agent of Siemens as designer engineer for photovoltaic system. He joined Mansoura University as research and teaching assistant in the Electrical Engineering Department and he involved in the consultant activities with external companies. He worked as research and teaching assistant in the Electrical and Computer Engineering Department at UNB, Canada. He joined McGill University for a Postdoctoral Fellow with the power electronics group. He joined Vestas Wind Systems working in the Technology R&D with the Wind Power Plant Group, (Head quarter office), Arhus, Denmark. He worked at Abu Dhabi Water and Electricity Authority, TRANSCO as Senior Study and Planning Engineer and seconded to assistant professor at Mansoura University. He is currently assistant professor in the Electrical Power Engineering Program at MIST and Visiting Professor at MIT, USA. Dr. Shawky was awarded the Expert and Key Employee benefits in Denmark.

melmoursi@masdar.ac.ae