



SMART GRID CENTER
TEXAS A&M ENGINEERING EXPERIMENT STATION

SGC WEBINAR

Smart Grid Integration of Modern Distribution Systems

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Worldwide consumption of electricity is expected to nearly double over the next two-and-a-half decades. International Energy Agency (IEA) predicts that meeting this demand for power will require over 5,000 GW of new electricity generating capacity (including replacement capacity) at a cost of over \$5 trillion. The new plants will require an additional \$6 trillion worth of additional infrastructure, making electric power an \$11 trillion market over the next 25 years. The search for new generation technologies is accelerating. In addition to that, modern distribution systems possess (or soon will) various forms of energy storage, normally intended to enable load shifting and provide a postponement of capacity upgrades of the existing infrastructure in the light of additions of distributed generation and new types of electric load, such as electric vehicles (EVs), which are expected to provide a major impact on the distribution systems (and, consequently, transmission networks as well) as proliferation of the new type of transportation becomes widespread around the world. The presentation will provide a brief overview of the changes in technologies and practices which are expected to occur, and will rely on the results of some of the projects that the presenter has done over the course of the past couple of decades, especially a few ongoing projects.

August 26, 2020 at 3:00 P.M. CDT

Register in advance at

<https://tamu.zoom.us/meeting/register/tJlkce6srTsvHNMcnlkFCx9Fa5EfRWCCrOFi>



Miroslav M. Begovic (FIEEE'04) is Department Head of Electrical and Computer Engineering and Carolyn S. & Tommie E. Lohman '59 Professor at Texas A&M University. Prior to that, he was Professor and Chair of the Electric Energy Research Group in the School of Electrical and Computer Engineering, and an affiliated faculty member of the Brook Byers Institute for Sustainable Systems and University Center of Excellence in Photovoltaic Research at Georgia Tech. For the Centennial Olympic Games in 1996 in Atlanta, he designed with Professor Ajeet Rohatgi a 340 kW photovoltaic system on the roof of Aquatic Center at Georgia Tech, which at that time was the largest roof-mounted PV system in the world. He has been a member of the IEEE PES Power System Relaying Committee for two decades and chaired a number of its working groups. Dr. Begovic delivered over 100 keynote and invited presentations worldwide. Dr. Begovic is a Fellow of IEEE and recipient of the IEEE PES 2019 Meritorious Service Award. Dr. Begovic is a former Chair of the Emerging Technologies Coordinating Committee of IEEE PES, IEEE PES Treasurer (2010-2011), IEEE PES Distinguished Lecturer, and served as President-Elect, President and Immediate Past President of the IEEE Power and Energy Society (2012-2018).