

The background is a dark blue gradient with abstract, flowing, curved lines that create a sense of depth and movement. A grid of small, light blue squares is visible, particularly on the right side, suggesting a digital or technological theme.

NASPI Panel Discussion: Synchrophasors on the Edge: Edge Computing Solutions using Synchrophasors

NASPI WORK GROUP MEETING OCTOBER 2021

SYNCHROPHASOR SOLUTIONS HAVE HISTORICALLY BEEN HIGHLY CENTRALIZED

- Collect all data from the field and route to central hub for distribution to end use applications.

HOW ARE SYNCHROPHASORS UTILIZED AT THE GRID EDGE?

- Grid edge refers to collecting synchrophasor data and enabling monitoring or controls applications at the substation level.
- Examples range from RAS to black start synchronizing...what else do edge use cases offer?

PANELIST: Mladen Kezunovic, Texas A&M

Mladen Kezunovic received the Dipl. Ing. from University of Sarajevo, Sarajevo, Bosnia, and M.Sc. and Ph.D. degrees in electrical engineering from University of Kansas, Lawrence, KS, in 1974, 1977, and 1980, respectively. He has been with Texas A&M University, College Station, TX, USA, for 35 years, where he holds titles of Regents Professor, Eugene E. Webb Professor, and Site Director of “Power Engineering Research Center” consortium.

He is also the Principal of XpertPower Associates, a consulting firm specializing in power systems data analytics for the last 30 years. His expertise is in protective relaying, automated power system disturbance analysis, computational intelligence, data analytics, and smart grids. He has authored over 600 papers, given over 120 seminars, invited lectures, and short courses, and consulted for over 50 companies worldwide. Dr. Kezunovic is an IEEE Life Fellow, and a CIGRE Fellow, Honorary and Distinguished Member. He is a Registered Professional Engineer in Texas.



PANELIST: Neeraj Nayak, EPG

Neeraj Nayak is a Senior Power Systems Engineer at Electric Power Group (EPG) and has extensive experience in Synchrophasor Technology – research, design, development, training and support. He has provided training and support to major ISOs and utilities for implementing synchrophasor applications and leads several DOE funded projects on synchrophasor applications and analytics.

He has led research and development related to generator model validation, oscillation analysis and monitoring, real-time contingency analysis, phasor simulations for operator training etc. He has a Master's degree in Power Systems from University of Southern California (USC). Neeraj has been with EPG since 2014 where his focus has been on making Synchrophasor Technology used and useful.



PANELIST: Mark Konya, SAS

Mark Konya, Advisory Industry Consultant in the SAS US Energy Division, earned graduate degrees in physics at Washington University (St. Louis) and nuclear engineering at the University of Illinois (Champaign-Urbana).

With over 35 years of utility sector experience in power generation, T&D reliability engineering and leading customer analytics initiatives, Mark shares his expertise with clients on analytics strategies and how to integrate SAS into utility operations.

Mark is a licensed professional engineer, a certified Six Sigma Black Belt and Lean facilitator, and a member of IEEE/PES where he helped author IEEE Standards 1366 and 1782. Mark was recently awarded U.S. patents for inventions related to processing AMI data and performing energy demand forecasts.



PANELIST: Anamitra Pal, ASU

Anamitra Pal received his Bachelor of Engineering (B.E.) degree (summa) in electrical and electronics engineering from Birla Institute of Technology, Mesra, Ranchi (India) in 2008 and his M.S. and Ph.D. degrees in electrical engineering from Virginia Tech, Blacksburg in 2012 and 2014, respectively.

He is now an Assistant Professor in the School of Electrical, Computer, and Energy Engineering at Arizona State University. Previously, from 2014-2016, he was an Applied Electrical and Computer Scientist in the Network Dynamics and Simulation Science Laboratory at the Biocomplexity Institute of Virginia Tech. Dr. Pal is the recipient of the 2018 Young CRITIS Award for his contributions to critical infrastructure resiliency, as well as the 2019 Outstanding IEEE Young Professional Award from the IEEE Phoenix Section.

His current research interests include data analytics with a special emphasis on time-synchronized measurements, artificial intelligence (AI)-applications in power systems, and critical infrastructure resiliency assessment.

