

Overview of Energy Systems Research and Education at

Florida International University

Dr. Osama A. Mohammed, IEEE Fellow

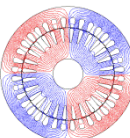
Professor and Director of the Energy Systems Research Laboratory

FIU

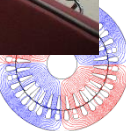
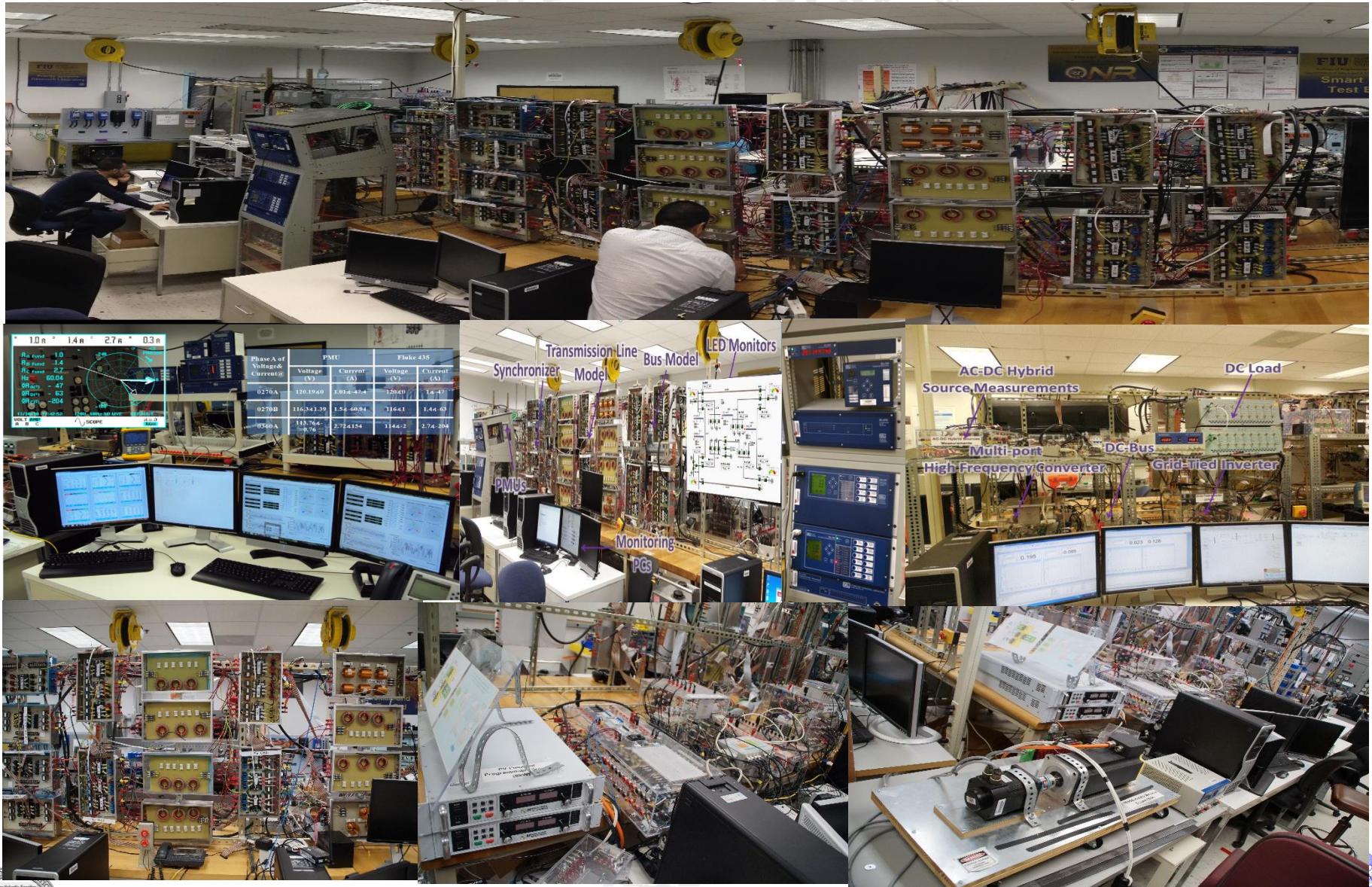


- Courses and Labs
- Energy Systems Research Laboratory Activities
- Smart Grid Test Bed (*Get Brochure and see Video at Website*)
- Power Electronics, EMC and Electric Drives Labs
- Undergraduate Student Research Interns
- Graduate Students
- Weekly Research Meeting and Presentations
- Visiting Faculty and Researchers and Visitors from Industry, other Universities and International entities
- Publications (*Get recent list on website*)
- Website: <http://www.energy.fiu.edu>

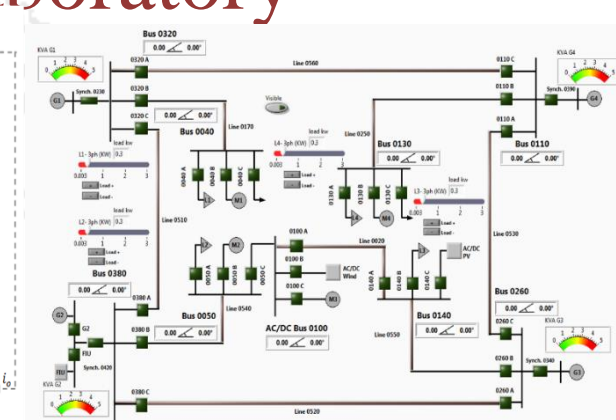
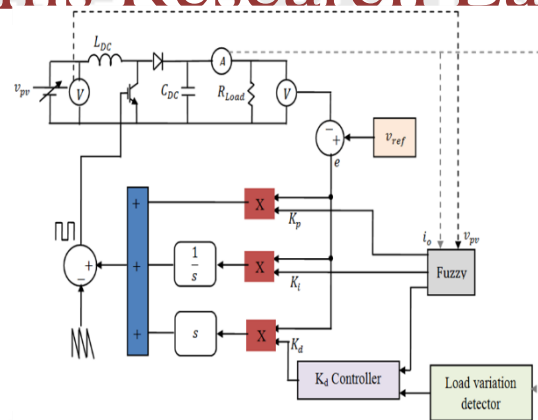
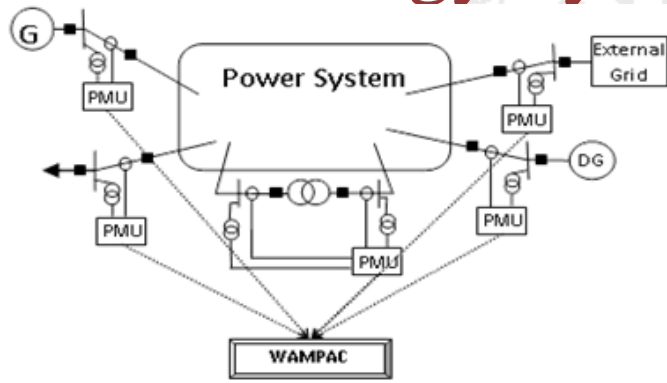
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Smart Grid Test Bed at the Energy Systems Research Laboratory



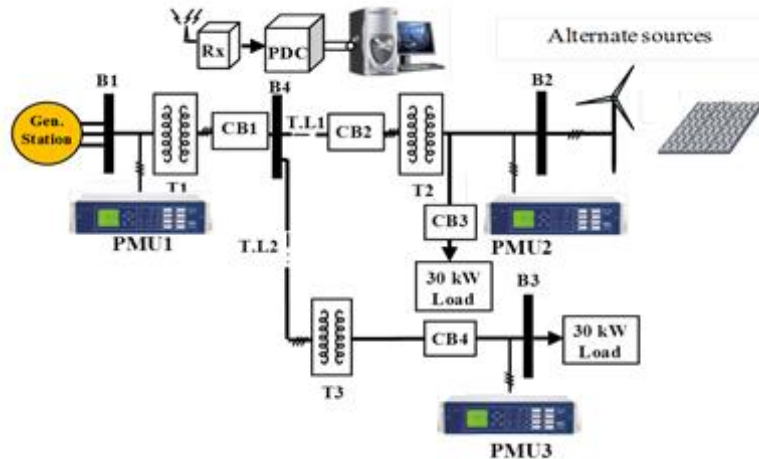
Some Recent Projects at the Energy Systems Research Laboratory



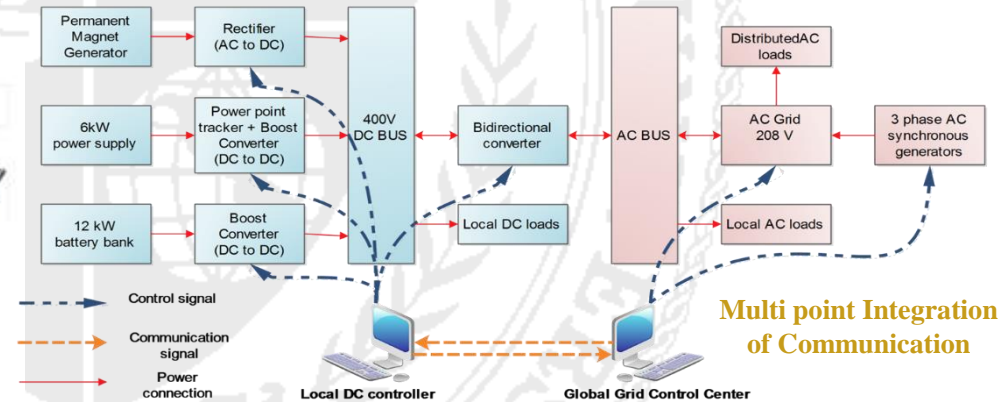
Smart Control of Power Electronic Converters

AC/DC Hybrid Micro Grid

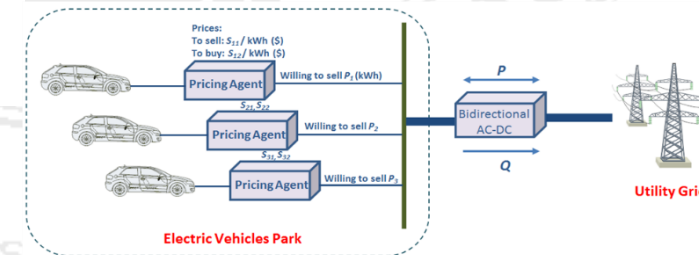
Grid-Connected Sustainable Energy Sources



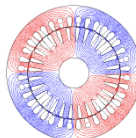
Wide Area Measurement Systems



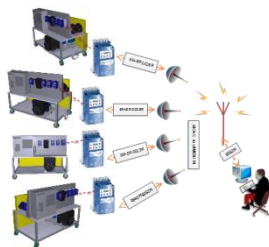
Multi point Integration of Communication



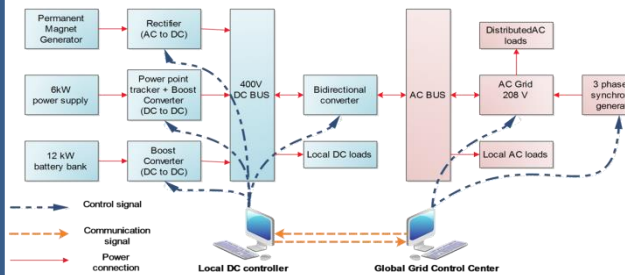
Charging Facilities for Hybrid Electric Vehicles



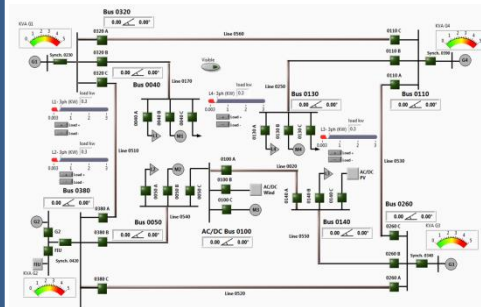
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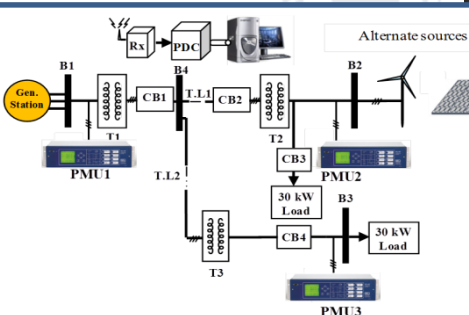
**Real time operation and control
For interoperability of generation
stations**



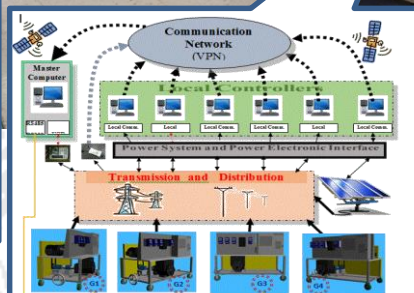
**Development of AC/DC real time power system
test bed for application in Smart Grid**



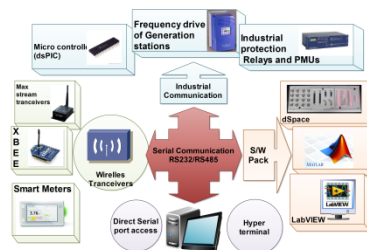
**Real time SCADA system
For monitoring and
operation**



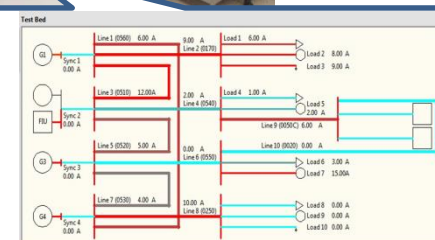
**R&D for Industry implementation
Phasor measurement units for
protection, monitoring and control
of the power system**



**Central and distributed control
schemes**



Communication platform

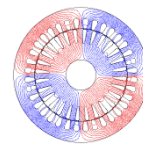


**Online representation of the
system**

Technical Layout



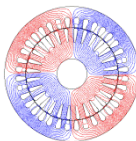
Energy Systems Research Laboratory, FIU



Students Supported at the Energy Systems Research Laboratory, FIU



Energy Systems Research Laboratory, FIU



Activities and Visitors at the Energy Systems Research Laboratory

