



Florida State University's Institute for Energy Systems, Economics and Sustainability (IESES)

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IESES' Talent's

Governance, Economics, Environment,
Education, Geography, Urban&Regional
Planning, Sustainable Energy Systems

Power Systems

Advanced Modeling and Simulation

Advanced Control Systems

Power Electronics Integration

Thermal management

High Temperature Superconductivity

Electrical Insulation/Dielectrics

5 MW Hardware-in-the-Loop Test Bed
and Largest Real time Simulator in
Academics - World Wide



Center for Advanced Power Systems

www.caps.fsu.edu

**Sustainable Energy Science and
Engineering Center**

www.sesec.fsu.edu

Center for Economic Forecasting

www.cefa.fsu.edu

The DeVoe L. Moore Center

<http://www.fsu.edu/~policy/index.html>

Florida Planning and Development Laboratory

http://www.fsu.edu/~durp/_People/audirac.html

Land Use and Environmental Law

[http://www.law.fsu.edu/academic_programs/
environmental/index.html](http://www.law.fsu.edu/academic_programs/environmental/index.html)

Experimental Social Sciences

www.xsfs.fsu.edu

Other Useful Links

<http://sesec.fsu.edu/homepage.html>

<http://www.sustainablecampus.fsu.edu>

<http://www.safety.fsu.edu/environmental.html>

[http://www.research.fsu.edu/facultystaff/
energy/index.html](http://www.research.fsu.edu/facultystaff/energy/index.html)

<http://www.gresworld.com/fsu/>



IESES' Sustainable Systems Approach

- Requirements validation
- Performance assessment
- Hardware / software design & integration testing
- Operational concepts development
- Reduced design cycle time
- Lower risk
- Public need assessment, Economic Necessity
- Environmental Impact

System Integration and Engineering Demonstrators



Power Control Laboratory



Low power PEBB and 200 KW PEBB Controller



5 MW advanced prototype test facility for motors, converters, transformers.

5 MW PEBB, Variable voltage and frequency converter, & variable DC bus

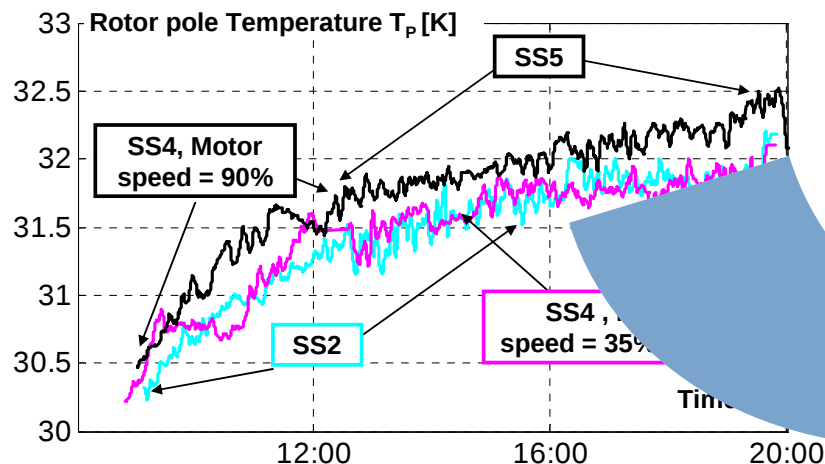


High voltage dielectric test facility



Superconductor AC Loss Msmt & Quench Stability & Propagation Test

Virtual Design, Integration & Test



- Rapid engineering prototyping
- Engineering Development Models
- Subassembly testing
- Hardware / software in the loop
- Operational environment emulation
- Economic Forecasting
- Geographical & Environmental Impact
- Governmental Interfaces & Human Factors

Points of Contact



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