Electric Energy Systems
Curriculum

With Emphasis on
- Renewables
- Smart Delivery
- Efficient End-Use

ONR-NSF-EPRI-AEP Workshop
Corvallis, OR July 21-25, 2009
Thank You!
Group Effort:

- Ned Mohan
- Bill Robbins
- Bruce Wollenberg
- Paul Imbertson
- Tom Posbergh
- Dr. Narain G. Hingorani (Project Consultant)
- Students

www.ece.umn.edu/groups/power
Integrated Curriculum – Only 3 Courses

- Analog/Digital Control
- DSPs, FPGAs
- Programming Languages
- Heat Transfer
- Thermo

Students are Broadly Trained; They can work in any field of EE.
Resources: Course Learning Objectives

Power Electronics: 

Electric Drives: 

Power Systems: 

Software Lab: MATLAB/Simulink, PowerWorld, PSCAD-EMTDC

PSpice Lab:
Evolving – Comments needed

- Solution Manuals
- PowerPoint Slides for Instructors
Low-cost Hardware Labs

- Used in **97** University Courses

PSpice Lab and Power Systems Lab are on the website – free to download
Join the Distinguished Resource Faculty List
Online Courses Available for University Education (Free?)
First-Year Graduate Courses

- Power Electronics
- Electric Drives
- Power Systems
Next Workshop: Tucson, AZ
February 4-6, 2010