

2.996 Fundamentals of Advanced Energy Conversion Lecture Memo

Lecture number: 1

Date: February 4th, 2004

- **Needs: Terawatt challenge**
- **Energy source and demand**
- **CO₂ emissions and global temperature**
- **Thermal efficiencies of different turbines and combined cycles**
- **Fuel cell: storage problem, storage in the solid state**
- **Nuclear hydrogen production**
- **Solar hydrogen production**