

## **2.996 Fundamentals of Advanced Energy Conversion Lecture Memo**

**Lecture number: 18**

**Date: April 12<sup>th</sup>, 2004**

- **Flames in SI engines**
- **Laminar and turbulent burning velocities**
- **Microscopic flame structure**
- **Two zone model**
- **Dependency of  $S_u$  on thermal diffusivity and characteristic time scale**
- **Dependency of  $S_u$  on equivalence ratio**
- **Stratification and turbulence generation in engines**
- **Knock**