

### **ME 626 Aeroacoustics of Exhaust Systems (3-0-0-6)**

Propagation of plane and three-dimensional waves in rectangular and circular ducts, dissipative ducts, theory of acoustic filters, units for measurement of sound and performance parameters, aeroacoustics, exhaust process, Transfer matrices for various tubular and perforated elements, Time domain analysis of exhaust systems, Flow acoustic measurements, dissipative ducts and mufflers, design of mufflers.

#### *Textsbooks:*

- [1] Marvin Goldstein, *Aeroacoustics*, McGraw-Hill, 1983
- [2] L. E. Kinsler and A. R. Frey, *Fundamentals of Acoustics*, Wiley, 1962
- [3] M. L. Munjal, *Aeroacoustics of Ducts and Mufflers*, Wiley, 1987
- [4] P. M. Morse and K. U. Ingard, *Theoretical Acoustics*, McGraw-Hill, 1968