# **Course Name:**

**Engineering Economy** 

### **Course Number:**

20197

# **Credit:**

3

# **Prerequisite:**

# **Course Content (outline):**

- Introduction (time value of money, and interest rate)
- Methods of economic evaluation of engineering projects (equivalent annual payment, present worth, rate of return, benefit. Benefit-to –cost ratio)
- Side topics (depreciation, before/ after tax analysis, choice of minimum attractive rate of return, multiple alternatives, sensitivity analysis, retirement and replacement analysis, continuous interest rate)
- Complementary subjects (multi-attribute decision- making; probability in engineering decisions, and Bayesian decision- making).

### **References:**

• Principles of Engineering Economy, E. L. Grant, W.G. Ire son, and R. S. Leavenworth