Economics of Renewable Energy Technologies

3 ECTS

Course description

Aim:
To enable students to undertake techno-economic appraisal of renewable energy projects.

Learning Outcomes:
On successful completion of the course, the students should be able to:

- Understand and apply time value of money formulae
- Determine different measures of financial performance
- Assess the financial feasibility of renewable energy projects
- Analyze the effect of various incentives on the financial attractiveness of renewable energy projects

Contents:
Brief overview of renewable energy technologies; Economic considerations in designing renewable energy technologies; Identification and quantification of the 'Costs' and 'Benefits' of renewable energy projects; Time value of money, discount rate and equivalence formulae; Measures of financial/economic performance; Approaches for considering uncertainty in appraisal/evaluation of renewable energy projects; Incentives (including Viability Gap Funding, Soft Loan, Feed-in-Tariff, Renewable Purchase Obligation, Income Tax Credits, Carbon Credits etc.) for promoting renewable energy technologies;

Basic-Literature for preparation


Relevant literature from Research Journals, Reports etc. (soft versions shall be made available to the students besides those of the presentations used for classroom discussion).

Mode of Performance Evaluation

(Same for each of the two RET courses)

Written examination is conducted at the end (usually in the last week of about six-week duration of the courses). Ninety (90)-minute duration examination is conducted for each course on the same day, one after another.