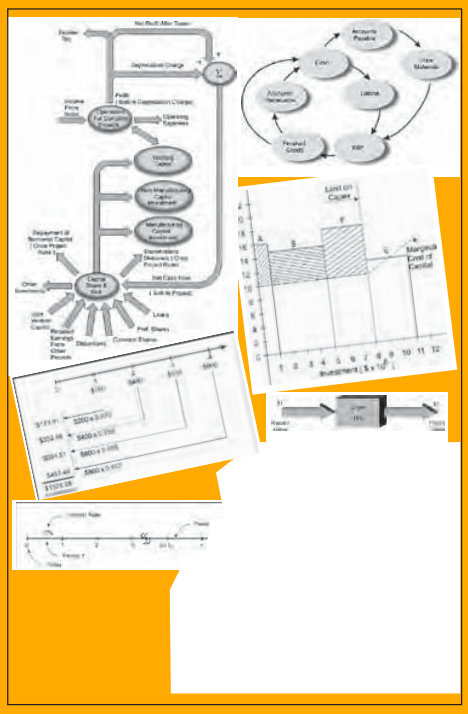
PRACTICAL
FINANCIAL FUNDAMENTALS AND PRO ECT INVESTMENT DECISION MAKING



YOU WILL LEARN HOW TO:

- Understand economic evaluation techniques in engineering project proposals
- Calculate the financial viability of expenditure proposals
- Optimise the use of capital on your projects
- Understand the essentials of discounting cash flows for a project and calculate NPV as well as IRR
- Manage your company assets more effectively and know when to replace equipment
- Execute sensitivity studies taking into account risk and uncertainty
- Rank alternative investment proposals using discounted cash flow techniques
- Understand different economic evaluation methods
- Prepare project expenditure proposals that can win management approval
- Make effective decisions when short of capital
- Read and explain financial statements
- Communicate with your financial manager and peers
- Manage your personal wealth and finances far more effectively than before

WHO SHOULD ATTEND:

- Instrumentation Engineers
- Mechanical and Electrical Engineers and Technicians
- Technical Professionals
- Production Workers
- Management Accountants
- Sales Engineers
- Plant Engineers, Operators and Supervisors
- Technical Specialists
- Metallurgists and Scientists
- Consulting Engineers

The Workshop

Finance courses are among the most frequently requested by engineers and technical professionals. One reason is rapidly advancing technology, increasing project complexity and competitive pressures place enormous demands on you to do the best possible cost estimation and economic evaluation of your engineering projects, products and services. Secondly, people wish to communicate effectively with finance personnel and in the board room, but don't understand the language.

Finance is, in fact, uncomplicated. The main problem is that accountants (as with other specialists in their fields) communicate using a language that has much topic-specified jargon. In today's world financial decisions are coming under increasing scrutiny. It is essential therefore that you have enough information to make effective choices and to drive your engineering projects forward with sound justifications.

This course commences with the basics of finance pertinent to engineers and technical professionals. Basic accounting and finance terms are explained in simple English with an emphasis on the engineering and technology world. Cash flow concepts are discussed and the issue of making appropriate investment decisions is examined, using such techniques as NPV and IRR. Finally, capital budgeting and risk are discussed in an easy-to-understand manner.

This is certainly not an advanced course, but one aimed at providing you with the fundamentals of Financial Management from a practical engineering and technology perspective.

Pre-requisites

A basic knowledge of projects and accounting concepts would be useful, but is not essential.

Practical Sessions

Seven useful practical exercises which you engage in to demonstrate the application of the concepts to your next engineering project or industry in general.

The Program

FINANCIAL STATEMENTS

- Recording of financial information
- Assets, equity and liabilities
- The Balance Sheet
- The Profit and Loss Statement
- The Cash Flow Statement
- Ratio analysis
  - Liquidity ratios
  - Leverage ratios
  - Activity ratios
  - Profitability ratios
  - Investment ratios
- Cash flow versus profit
- Du Pont analysis

Practical Exercise

COST ESTIMATION

- Direct and indirect costs
- Fixed and variable costs
- Breakeven analysis

Practical Exercise

CASH FLOW CONCEPTS

- Cash flow models for manufacturing
- Depreciation methods
  - Straight line
  - Declining balance
  - Years digits
- Cash flow forecasts

Practical Exercise

TIME VALUE OF MONEY

- Compounding vs discounting
- Discount Rate, Hurdle Rate and Cost of Capital
- Present and future values of money
- Effect of compounding period
- Effective and nominal interest rates
- Compounding and discounting multiple cash flows
- Net Present Value vs Internal Rate of Return
- Annuities
- Compounding and discounting tables
- The use of spreadsheets

Practical Exercise

RANKING OF INVESTMENT PROPOSALS

- Undiscounted and discounted payback method
- NPV method
- NFV method
- IRR method
- Benefit/cost ratio and NPV ratio methods
- Incremental NPV method
- Incremental ROI method

Practical Exercise

CAPITAL MANAGEMENT

- Capital rationing

Practical Exercise

EFFECTS OF INFLATION

- Inflation and NPV

Practical Exercise

RISK AND UNCERTAINTY

- Sensitivity analysis
- Monte Carlo analysis

Practical Exercise

TYING IT ALL TOGETHER

- Revision of the key concepts
- How to apply this to corporate financial decision making
- How to apply this to personal wealth creation

OPEN DISCUSSION AND CLOSING