



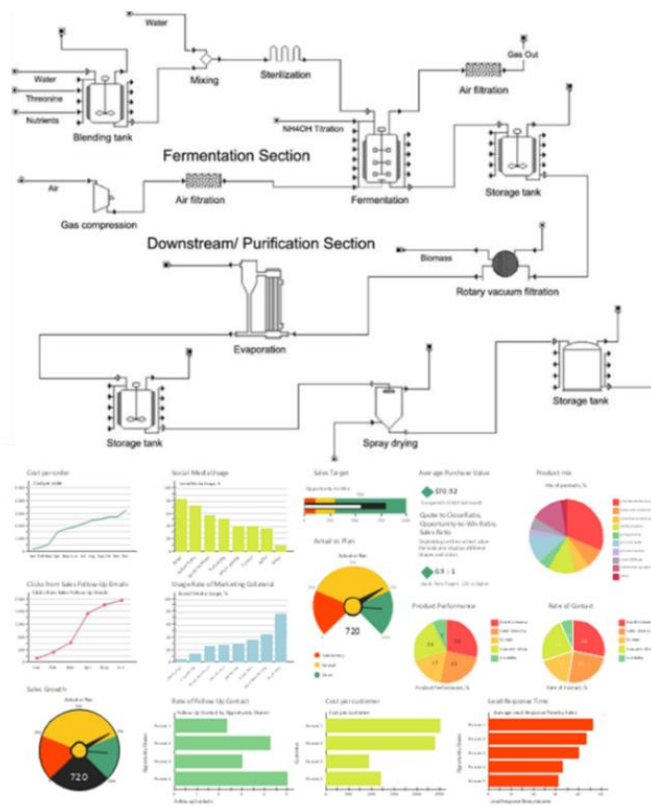
Maximising Your Investment in Emerging Technology

Using Techno-Economic Analysis to make confident decisions

At a glance

Companies need in-house capability to assess opportunities and risks to their existing business models. Process intensification, biotechnology, electrification, artificial intelligence and advanced materials are changing the face of manufacturing. Rapid Techno-Economic Analysis modelling informs timely decision making and business strategy.

This three-day workshop will provide delegates with a comprehensive understanding of Techno-Economic Analysis (TEA), equipping delegates with practical modelling skills. Engineers, scientists, designers and investors will be enabled to identify value from emerging technologies and processes.



Who this course is intended for

This practical course is designed for anyone involved in demonstrating or assessing the feasibility of emerging technologies. This includes developers of, and investors in, emerging technologies, including engineers, scientists, project designers and investors.

What you will learn

At the end of the course participants will be able to develop bespoke TEA models to evaluate the financial viability of emerging process technologies, based on CAPEX and OPEX estimation, product and feedstock price forecasting, and rigorous sensitivity analysis, and will understand how to use model outputs to evaluate life cycle environmental impacts.

Course details

The course will be held in Room A13, George Green Library, University Park, University of Nottingham, Nottingham, NG7 2RD, UK.

Course fee

£1,950, includes course fees, lunch, refreshments each day and dinner with a guest speaker on the second day.

Course content

- Conceptual Process Flow Design
- Mass and Energy Balancing
- Capital Cost Estimation
- Variable Operating Cost
- Fixed Operating Cost
- Investment Analysis
- Product & Feedstock price forecasting
- Sensitivity analysis
- Integration of Life Cycle Analysis (LCA)

Pre-requisite Requirements

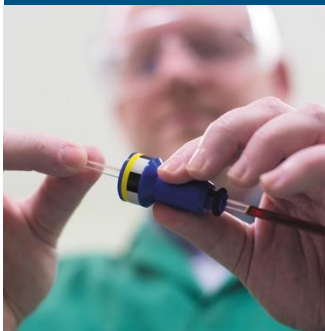
The course will be based on a number of key presentations about the central topics listed above followed by hands-on practical sessions using case study material. This will enable participants to develop a detailed working knowledge of the core concepts. Delegates should possess an existing competency in developing formula-based MS Excel spreadsheets.

Artificial Intelligence
will revolutionise
manufacturing

New carbon feedstocks
offer opportunities to
increase profit margins



Process
Intensification holds
the key to greater
productivity



Novel process unit
operations can
reduce bio-product
formation and reduce
operating costs

Biotechnology has the
potential to be
disruptive to existing
business models

The electrification of
industry from
renewable sources is
advancing

New advanced
materials will
change how we
innovate



Sustainability through
energy efficiency and
process retrofit will
shape the processes of
tomorrow

