CML 438: ADVANCED SEPARATION PROCESS

Course No.: CML438
Course Title: Advanced Separation Technology
Course Type: Elective
Course Credits: 3

Objective:

The objective of this subject is to expose students to understand advance separation technique for separation and its application to chemical engineering.

Syllabus:

Separation by phase addition or creation: approximate methods for multicomponent, multistage separations (Fenske-Underwood-Gilliland method, Kremser group method).
Enhanced distillation and supercritical extraction: Reactive distillation process in kinetics, dissociation extraction, reactive extraction technology.
Separation by barriers and solid agents: membrane separations, adsorption, and chromatograph (Transport in membranes, sorbents, equilibrium considerations, kinetic and transport consideration, sorption systems).

References: