Course Fee: US$650

If you have cases that are heat transfer or pressure drop limited, this is the course for you. Learn how to use ***Xist*** to enhance the performance of shell-and-tube exchangers. Case studies of suitable applications for enhanced geometry and features in ***Xist*** will be discussed.

Key Topics

- Tube inserts
- ID enhanced tubes
- OD enhanced tubes
- Alternative baffles

Suggested Participants

Engineers responsible for specifying or improving shell-and-tube exchanger performance

Course credits: 6 hours (PDH/CEU)

Outline

I. Considerations for Thermal Optimization
- Conditions where optimization can benefit
- Limitations of segmental baffles
  - Bypass flows
  - Window regions
- Shellside flow distribution
- Segmental baffle guidelines

II. Tube Inserts
- Tube insert applications
- Augmentation mechanisms
- Tube insert devices
- Twisted tape

III. Externally Enhanced Tubes
- Extended surfaces and benefits
- External enhancement options in ***Xist***
- Potential future technologies

IV. Internally Enhanced Tubes
- Internal enhancement options in ***Xist***
- Double enhancement options in ***Xist***

V. Alternative Baffles
- Alternative baffle types
- Performance of various baffles
- Workaround to model disc-and-doughnut baffles