

# Excel VBA Programming for Chemical Engineers (CH766VTL)

## *Virtual Course*

### Session 1

#### Getting Started with VBA

- Configuring Excel for VBA programming
- The Visual Basic Editor environment
- Recording and editing macros
- Debugging in the Visual Basic Editor

#### User-Defined Functions

- Programming user-defined functions (UDFs)
- Including programming structure in UDFs
- Borrowing Excel spreadsheet-based functions
- Developing array functions
- Packaging collections of functions in an Excel add-in

### Session 2

#### Delving into VBA Programming

- Communicating with the spreadsheet
  - Object-oriented concepts
- Data types and scope
- VBA programming structures
- Modular organization of VBA programs

#### User Interfaces and VBA Applications

- Message boxes, input boxes and on-sheet buttons
- Programming event handlers
- Designing and creating userforms
- Integrating course concepts into an Excel VBA application
- Interfacing with outside programs