



## VISHWKARMA GOVERNMENT ENGINEERING COLLEGE, CHANDKHEDA

### Report on the Training Program on 'Process Engineering and Design' (Session – 1)

<b>Name of Department</b>	:	Chemical Engineering
<b>Title of Session – 1</b>	:	Design of Shell and Tube Heat Exchanger
<b>Expert Name, Designation &amp; Affiliation</b>	:	Prof. S. B. Thakore Associate Professor, Chemical Engineering Department, VGEC
<b>Date &amp; Time</b>	:	19/02/2021, 3:15 p.m. to 5:15 p.m.
<b>Venue</b>	:	ONLINE (Microsoft Teams)
<b>No of Participants</b>	:	107
<b>Event Coordinators</b>	:	Prof. S. B. Thakore & Prof. U. P. Christian

#### About the Training Program

An Online training on 'Process Engineering and Design' (total duration of 20 hours) is organized by the Chemical Engineering Department under the auspices of the **Institution of Engineers India (IEI)** from February to April 2021. This training program is organized for U.G. and P.G. students of Chemical Engineering from various institutes of Gujarat.

#### Objectives of the Training Program

- To discuss about the significant procedure for the design of process plant equipment such as shell & tube heat exchanger, distillation column, absorbers or scrubbers, pump, flow meters and piping.
- To learn about the detailed selection criteria among the different types of equipments.
- To learn about the mechanical design of pressure vessel.
- To discuss on specification sheets, drawings, etc.
- To get the exposure of software such as HTRI, and ASPEN used for the design and simulation of equipment.

#### Discussion Points: Session - 1

- Classification of various types of heat exchangers
- Calculations of LMTD and heat transfer coefficient in shell and tube heat exchanger
- Stepwise procedure for the design of shell and tube heat exchanger

