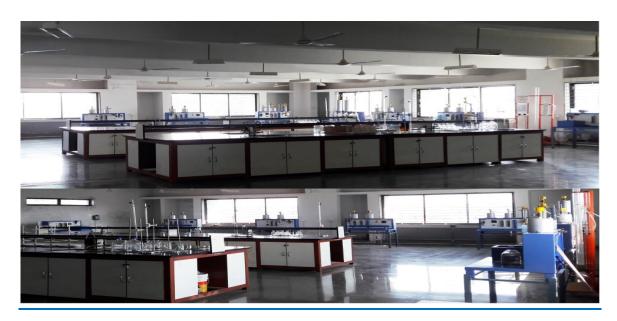
Chemical Reaction Engineering Laboratory (CRE)



| Faculty in charge | Prof. S. M. Badgujar |
|---------------------------|--|
| Laboratory Area | 202 m ² |
| Location | C-2/01 |
| Seating Capacity | 20 |
| | Refractometer Polarimeter |
| Infrastructure & Facility | 3. Weighing Balance |
| | 4. Refrigerator |
| | 5. Air Compressor |
| | |
| | 1. Isothermal Plug Flow Reactor |
| | 2. Isothermal CSTR/ Mixed Flow Reactor |
| | 3. Three CSTR Connected in Series |
| List of Equipment | 4. PFR And CSTR In Series |
| Available | 5. Single Tube Isothermal Packed Bed Reactor |
| | 6. RTDin CSTR/ Mixed Flow Reactor |
| | 7. RTD in Plug Flow Reactor |
| | 8. Single Tube Isothermal Packed Bed Reactor For RTD |
| | 9. Helical Coil Reactor. |

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| List of Experiments Performed | 1. Saponification reaction in a batch reactor (Equimolar Mixture) |
| | 2. Saponification reaction in a batch reactor (Non-Equimolar |
| | Mixture) |
| | 3. Determination of activation energy using Arrhenius law. |
| | 4. Acid catalyzed hydrolysis of methyl acetate. |
| | 5. Study of inversion of sucrose |
| | 6. Determination of order of reaction using different methods |
| | 7. Study the performance of Mixed Flow Reactor. |
| | 8. Study the performance of Plug Flow Reactor. |
| | 9. Study the performance of Reactors in Series. |
| | 10. Study the Performance of Packed Bed Reactor. |
| | |
| | Even Sem: |
| | 1. Determination of properties of solids. |
| | 2. Adsorption of oxalic acid on activated Carbon. |
| | 3. Study the effect of surface area on adsorption. |
| | 4. RTDstudies of a CSTR/ Mixed Flow Reactor (Pulse Input). |
| | 5. RTDstudies of a CSTR/ Mixed Flow Reactor (Step Input). |
| | 6. RTD studies of a Plug Flow Reactor (Pulse Input). |
| | 7. RTD studies of a Plug Flow Reactor (Step Input). |
| | 8. RTD studies of aPacked Bed Reactor For RTD. |
| Total Expenditure | 5,67,048 Rs. (Fixed Cost) |