

Chemical Reaction Engineering Laboratory (CRE)



Faculty in charge	Prof. S. M. Badgujar
Laboratory Area	202 m ²
Location	C-2/01
Seating Capacity	20
Infrastructure & Facility	<ol style="list-style-type: none"> 1. Refractometer 2. Polarimeter 3. Weighing Balance 4. Refrigerator 5. Air Compressor
List of Equipment Available	<ol style="list-style-type: none"> 1. Isothermal Plug Flow Reactor 2. Isothermal CSTR/ Mixed Flow Reactor 3. Three CSTR Connected in Series 4. PFR And CSTR In Series 5. Single Tube Isothermal Packed Bed Reactor 6. RTD in CSTR/ Mixed Flow Reactor 7. RTD in Plug Flow Reactor 8. Single Tube Isothermal Packed Bed Reactor For RTD 9. Helical Coil Reactor.

<p>List of Experiments Performed</p>	<p>Odd Sem</p> <ol style="list-style-type: none"> 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. <p>Even Sem:</p> <ol style="list-style-type: none"> 1. Determination of properties of solids. 2. Adsorption of oxalic acid on activated Carbon. 3. Study the effect of surface area on adsorption. 4. RTD studies of a CSTR/ Mixed Flow Reactor (Pulse Input). 5. RTD studies 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 a Packed Bed Reactor For RTD.
<p>Total Expenditure</p>	<p>5,67,048 Rs. (Fixed Cost)</p>