



ChemBuddy

Your Equipment Companion

A Digital Learning App for Chemical Engineering Students & Young Professionals

220 Equipment

19 Categories

THE CHALLENGE

India's chemical engineering graduates face a critical knowledge gap:

- Fresh engineers lack hands-on understanding of industrial equipment
- Reference materials like Perry's Handbook are bulky and hard to search
- Troubleshooting knowledge is scattered across multiple sources
- Safety awareness often comes only after incidents, not before
- Gap between theoretical education and industry requirements keeps widening

THE SOLUTION: ChemBuddy

A comprehensive, mobile-ready digital learning app that provides:

- ✓ Instant access to 220 equipment types across 19 categories
- ✓ Operating principles, key components & specifications for each equipment
- ✓ Practical troubleshooting guides with Problem → Cause → Action format
- ✓ Field observation checklists – what to look for during plant visits
- ✓ Safety considerations for every equipment type

EQUIPMENT COVERAGE

Piping & Valves	25	Size Reduction	23	Dryers	15	Solid-Liquid Sep.	15
Pumps	12	Utilities	12	Compressors	10	Heat Exchangers	10
Evaporators	10	Reactors	10	Mixing Equipment	10	Material Handling	10
Storage Tanks	10	Instrumentation	10	Safety Equipment	10	Columns	8
Gas-Solid Sep.	8	Crystallizers	7	Fired Heaters	6		

FOR EACH EQUIPMENT, YOU GET

■ Description

What it is & where it's used

■ Key Specifications

Critical parameters to know

■ Troubleshooting Guide

Problem-Cause-Action tables

■ Safety Points

Critical safety considerations

■ Operating Principles

How it actually works

■ Major Components

8-10 parts with functions

■ Field Observations

What to check during rounds

WHO BENEFITS

■ Chemical Engineering Students

Accelerate learning, prepare for internships & placements

■ Plant Operators & Technicians

Troubleshooting guide at your fingertips

■ Process Engineers

Equipment selection & specification reference

■ Graduate Engineers

Quick reference during onboarding & early career

■ Training Departments

Ready-made content for induction programs

■ Safety Officers

Equipment-specific safety checklists

COMING SOON – PHASE 2 FEATURES

- Chemical Engineering Formulae Library – all key equations at your fingertips
- Daily Quiz – test your equipment knowledge with gamified learning
- Leaderboard – compete with peers and track your progress
- Interesting Snippets & Trivia – engaging facts about industrial equipment
- User-friendly URL – easy-to-remember web address (coming soon)

ABOUT THE DEVELOPER

Dr. Sundararaman Chintamani

Reinvention Catalyst for the AI Era | Business Storyteller | Corporate Trainer

DOMAIN EXPERTISE (40+ Years):

- 15 years in Refinery Operations at CPCL – storage, hydrogen units, OM&S, training
- 22 years in IT/ITES for Oil & Gas – digital solutions, simulation systems, OTS
- Subject Matter Expert for Chevron L&D Project (Downstream)

ACADEMIC CONTRIBUTIONS:

- Visiting Faculty, PDEU – Enterprise Asset Management & Petroleum Refining
- 16 professionally produced video modules on Petroleum Refining for EMRC, Anna University
- Trainer of global engineers on Asset Management, Automation & Plant Operations

CREDENTIALS:

- Distinguished Toastmaster (DTM) – twice | Author of 10+ books
- Certified Independent Director | Industry 4.0 Assessor
- Member, Chemical Skills Development Council (CSDC)

CONTACT & ACCESS

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(User-friendly URL coming soon)