

**VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA**

**Lesson plan**

**Semester: 8<sup>th</sup>**

**Subject: Fluidisation Engineering**

Lecture	Module	Topic
1	1	Introduction to fluidization
2	1	Types of fluidization
3	1	Gross behavior of fluidized beds
4	1	Minimum fluidization velocity
5	1	pressure drops in fluidized beds
6	1	Bed voidage
7	1	TDH
8	1	Viscosity and fluidity of beds
9	1	Bubble behavior
10	1	Bed expansion
11	1	Distributor design
12	2	Simple mathematical treatment
13	2	Solid transport
14	2	Flow and fluidized solids
15	2	Solids transfer
16	2	Terminal velocity
17	2	Particle entrainment and elutriation
18	2	Particle entrainment -Simple calculations
19	2	Heat and mass transfer in fluidized beds
20	2	Heat and mass transfer in fluidized beds
21	2	Heat and mass transfer in fluidized beds
22	3	Heat and mass transfer in fluidized beds
23	3	Heat and mass transfer in fluidized beds
24	3	Principles of gas-solid and bed surface transfer
25	3	Heat transfer to liquid fluidized systems
26	3	Generalized correlation for Mass Transfer
27	3	Semi fluidization: Reactors.
28	3	Semi fluidization: Principles
29	3	Production of various bed parameters
30	3	Production of various bed parameters
31	3	Industrial applications
32	4	Industrial applications
33	4	Design of fluidized bed reactors
34	4	Design of fluidized bed reactors
35	4	Concept of RTD
36	4	Basic design principles for fluidized bed
37	4	Basic design principles for fluidized bed

Signature of the Faculty Member:  
Date:

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