Week	Lecture	Topic
1	1	Introduction to Computer Modelling and Simulation
	2	Definitons of System, Model and Simulation, Types of Modeling, Paradigms amd applications of SImulations, Course overview and outline
2	3	Dynamic Systems: Unconstrained Growth Model
	4	Dynamic Systems: Constrained Growth Model
3	5	Dynamic Systems: Drug Dosage Model and Force and Motion Model
	6	Dynamic Systems: Predator-Prey Models
4	7	Dynamic Systems: Model Spread of SARS/Covid
	8	Numerical Methods and Errors-1
5	9	Data-based Modeling
	10	Data-based Modeling
6		**Sessional 1**
	11	Sessional-1 Discussion
7	12	Agent Based Modelling-1
	13	Agent Based Modelling-2
8	14	Discrete Event Simulation-1
	15	Discrete Event Simulation-2
9	16	Sensitivity analysis
	17	Monte Carlo Simulation-1
10	18	Monte Carlo Simulation-2
	19	Markov Chains
11		**Sessional 2**
	20	Sessional-2 Discussion
12	21	Cellular Automata
	22	Cellular Automata
13	23	Petri Nets
	24	Petri Nets
14	25	Additional Topics
	26	Additional Topics
15	27	Presentations
	28	Presentations
16	29	Presentations
	30	Presentations