

Theory of Computation

Instructor
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Class Details & Topics covered 



Classes **1** to **4**

Finite Automata

Topics:

- ▶ DFA
- ▶ NFA
- ▶ e-NFA
- ▶ Moore, Mealey
- ▶ NFA to DFA conversion
- ▶ DFA minimization

Classes **5** to **7**

Regular Expressions

Topics:

- ▶ PORE
- ▶ RE to DFA
- ▶ Regular Language
- ▶ Grammar to RL

Classes **8** to **11**

Regular Grammar

Topics:

- ▶ Right Linear Grammar
- ▶ Left Linear Grammar
- ▶ Chomsky Hierarchy
- ▶ Elimination of e-productions

Classes **12** to **15**

Push Down Automata

Topics:

- ▶ PDA, DPDA, NPDA
- ▶ CNF, GNF
- ▶ CFL Pumping Lemma
- ▶ CFG to PDA

Classes **16** to **18**

Turing Machine

Topics:

- ▶ TM working
- ▶ TM using PDA
- ▶ REC, REL Closure

Classes **19** to **20**

LBA and Undecidability

Topics:

- ▶ CSL Closure
- ▶ Post Correspondence problem
- ▶ Undeciability table