Unit1

1. [Theory of Computation: NFA to DFA conversion (Subset Construction Method) - YouTube](https://www.youtube.com/watch?v=ByCm5lbOL3E&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=14)

[19 NFA to DFA steps with example - YouTube](https://www.youtube.com/watch?v=OZhwvpEm9eY&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=20)

1. [Theory of Computation: Conversion of Epsilon-NFA to NFA - YouTube](https://www.youtube.com/watch?v=Vobgo5t5SQA&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=20)
2. [22 epsilon NFA to DFA with example - YouTube](https://www.youtube.com/watch?v=LUNkK1VOdzk&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=23)

[Theory of Computation: Conversion of Epsilon-NFA to DFA - YouTube](https://www.youtube.com/watch?v=4-N3GfHb134&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=19)

1. [Theory of Computation: Conversion of RE to Epsilon-NFA - YouTube](https://www.youtube.com/watch?v=dyZptpZLwIE&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=21)

[29 converting regular expression to finite automata - YouTube](https://www.youtube.com/watch?v=QVD16HdFGdM&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=30)

1. [29 Converting DFA to regular expression by eleminating states - YouTube](https://www.youtube.com/watch?v=zPo_Mw_rr2E&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=29)(nfa->dfa then this)

[Theory of Computation: Conversion of DFA to RE (Rijk Method) - YouTube](https://www.youtube.com/watch?v=DTSJxGuV9dM&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=23)

1. [Explain the various applications of automata in TOC (tutorialspoint.com)](https://www.tutorialspoint.com/explain-the-various-applications-of-automata-in-toc)
2. [Theory of Computation: Pumping Lemma for Regular Languages - YouTube](https://www.youtube.com/watch?v=VZ3RsbQ-I7g&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=30)

[Theory of Computation: Pumping Lemma-Example2 - YouTube](https://www.youtube.com/watch?v=4OuYzKUuU1U&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=32)

1. [39 Closure properties of regular language - YouTube](https://www.youtube.com/watch?v=MD9SbCcHYp8&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=39)
2. [41 Myhill Nerode theoremtabble filling method - YouTube](https://www.youtube.com/watch?v=8s5S93M4FBU&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=41)
3. [Theory of Computation: Minimized DFA - YouTube](https://www.youtube.com/watch?v=bybq9pYvVrw&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=30)

[37 Minimization of finite automata - YouTube](https://www.youtube.com/watch?v=LhJkChP481k&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=37)

Unit 2

1. [5 Derivation tree or parse tree with example - YouTube](https://www.youtube.com/watch?v=6-yZL25kmRw&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=47)
2. [6 Ambiguity in grammar - YouTube](https://www.youtube.com/watch?v=Ag9Bqm4CeWE&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=49)

[7 unambigous grammar - YouTube](https://www.youtube.com/watch?v=CMc3ehZPaEI&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=50)

[Theory of Computation: Ambiguous Grammar - Example - YouTube](https://www.youtube.com/watch?v=PZJjGxrHoP4&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=38)

1. [Theory of Computation: PDA Introduction with Example (0^n 1^n) - YouTube](https://www.youtube.com/watch?v=mhlBy2XvRuU&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=44)
2. [Theory of Computation: Conversion of PDA to CFG - YouTube](https://www.youtube.com/watch?v=ntMdkSpR6os&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=51)
3. [Theory of Computation: Conversion of CFG to PDA - YouTube](https://www.youtube.com/watch?v=ztpehUPnsL4&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=50)
4. [Theory of Computation: DPDA Example (wcw^r) - YouTube](https://www.youtube.com/watch?v=7tRjX0VHHZg&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=48)

Unit 3

1. [10 Chomsky normal form - YouTube](https://www.youtube.com/watch?v=1xk4TThiCvI&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=52)
2. [11 Conversion of CFG into CNF - YouTube](https://www.youtube.com/watch?v=TT3SmqeEYPU&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=54)

[12 Greibach normal form with example - YouTube](https://www.youtube.com/watch?v=eKw03mES0OA&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=55)

1. There’s no gnf to cnf conversion
2. [Theory of Computation: Pumping Lemma for CFL with Example (a^n b^n c^n) - YouTube](https://www.youtube.com/watch?v=KyQc054-BEU&list=PL6xbXi2C3sePDwyboAcu7l1UYuUT2SWYd&index=52)
3. [18 Closure property - YouTube](https://www.youtube.com/watch?v=nmPTKryhE3E&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=61)

[Closure Properties of Context Free Languages - GeeksforGeeks](https://www.geeksforgeeks.org/closure-properties-of-context-free-languages/)

1. [Various Properties of context free languages (CFL) - GeeksforGeeks](https://www.geeksforgeeks.org/various-properties-of-context-free-languages-cfl/)
2. [20 Decision properties - YouTube](https://www.youtube.com/watch?v=iFxfZsHWDQI&list=PLROvODCYkEM_5C-IKWgJQ4evnAuJ8YO1J&index=62)