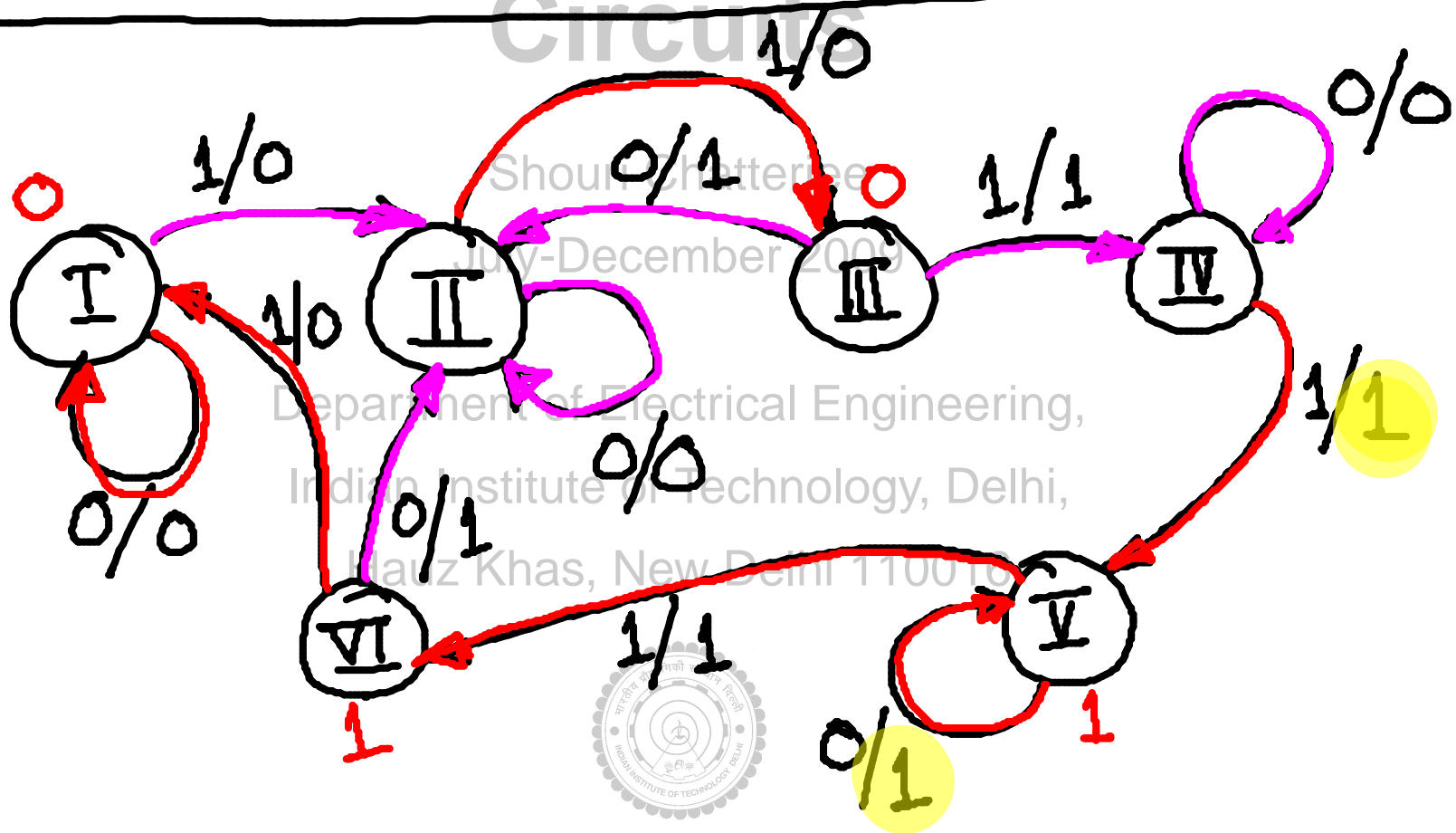
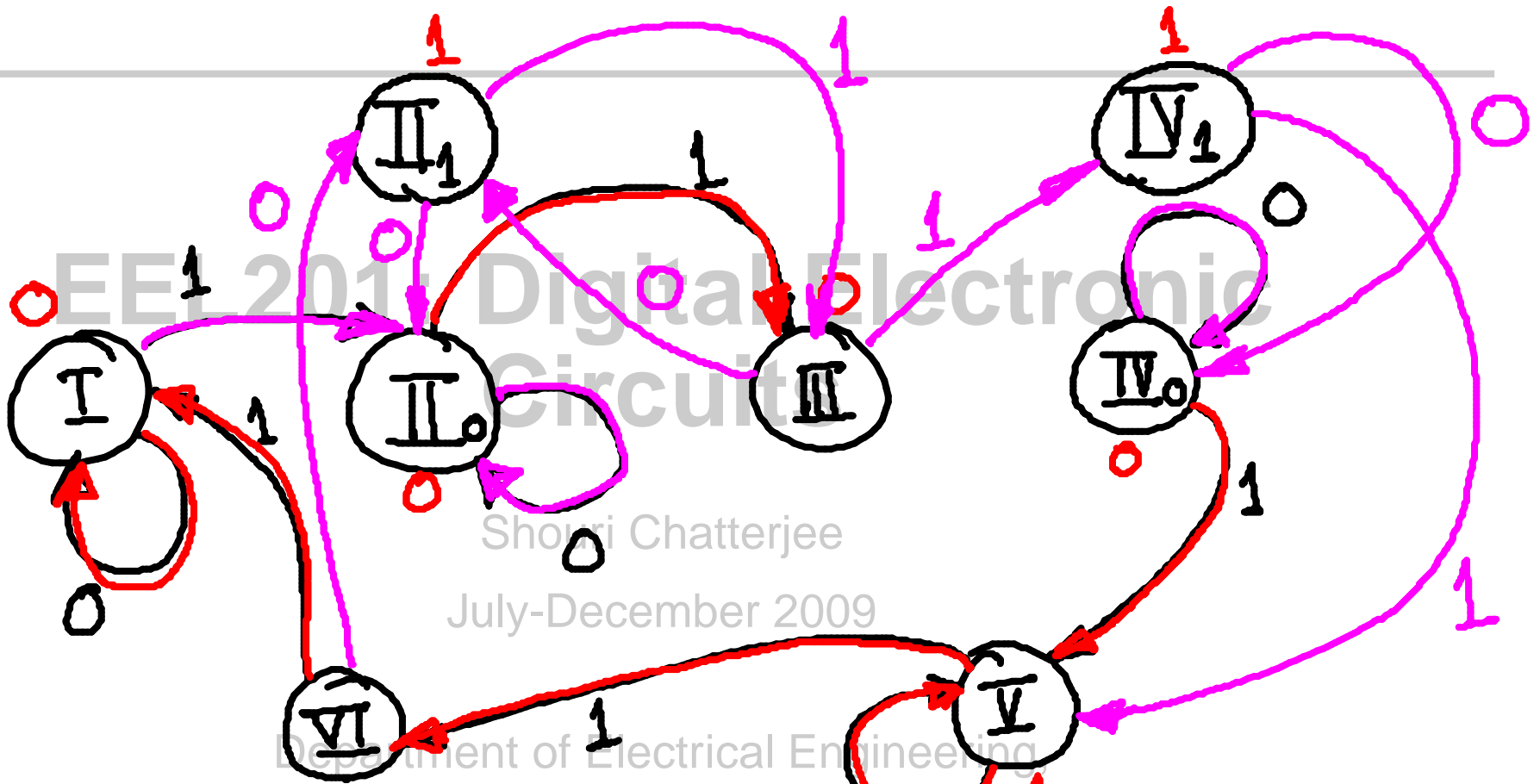


1) Mealy \rightarrow Moore conversion (formal method)

2) Using other flip-flops





EEL 201: Digital Electronic Circuit

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Suppose — (Mealy) k outputs
 N states \longrightarrow (Moore) $2^k N$ states
 $\log_2 N$ f/f's \longrightarrow $k + \log_2 N$ f/f's.

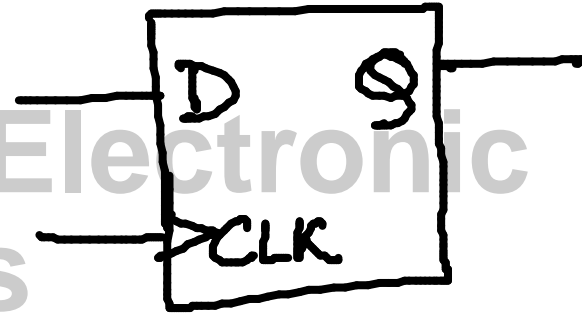
Using other flip-flops

J-K

T

Any other

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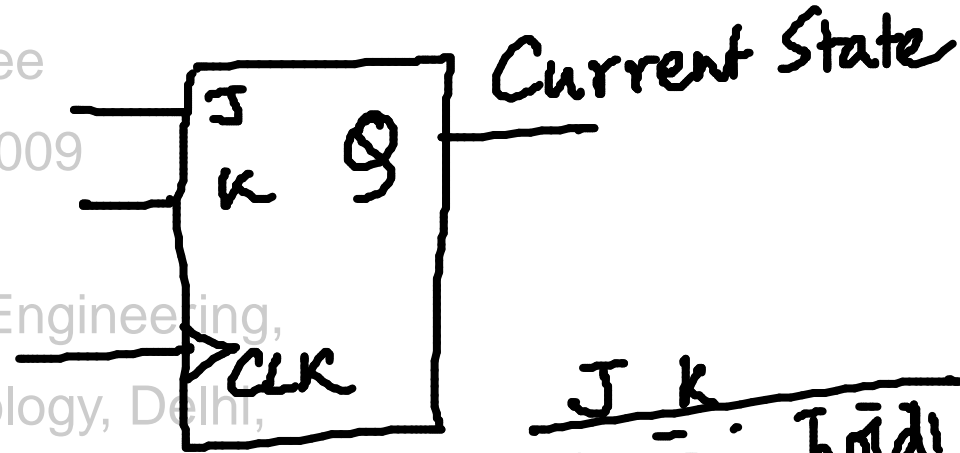
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Current	Next
0	0
0	1
1	0
1	1

J	K
0	X
1	X
X	1
X	0



	J	k	hold
reset	0	0	0
set	0	1	1
	1	0	1
	1	1	toggle

Current

Next

T

0

0

0

0

1

1

1

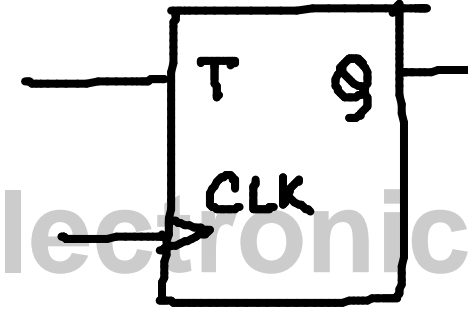
0

1

1

1

0



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T
0
1

hold
toggle

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Current

Next

Q_1 Q_0

0 0

0 1

1 0

1 1

J_1 K_1

0

X

1

X

X

0

X

1

T_0

1

1

1

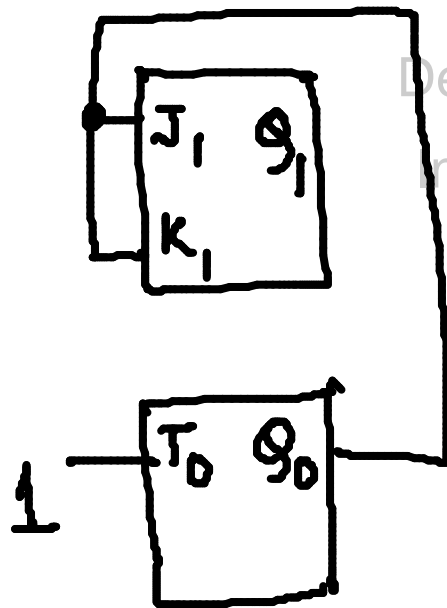
1

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$$J_1 = Q_0 \quad K_1 = Q_0 \quad T_0 = 1$$



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