Jawad Vai DTL TTL RAM one shot https://www.youtube.com/watch?v=GKcoX872zJk

positive logic, negative logic https://youtu.be/gtucOKD1pHA?si=w-jBEYtZUZX93-V6

AOI https://youtu.be/jwcKSC-Wkkw?si=zvMqZY1S-cyo6spN

DTL

> NAND
>
> Initial https://youtu.be/npyuKHB1s6g?si=VOK4x9bOVV6TYcYx
>
> Complete DTL https://youtu.be/eUUoBtJAmVI?si=oWe8KYRjtRzFxxdH
>
> NOR
>
> > DTL https://youtu.be/XopoRmASU_k?si=K2Z7hLbcESxaW1Eh

TTL

> NAND
>
> > 3 ip https://youtu.be/sW1FEm2yNnA?si=WTJaKIRg-5WYsVri
> >
> > 3 ip https://youtu.be/6Zd582d-PfU?si=o3Vf15t_15sJwQED
> >
> > TTL with a diode https://youtu.be/Q8iikBqCOdQ?si=iRAB0DRT6MiKAOUA
> >
> > Totemploe op https://youtu.be/ye_wOuWRUtI?si=xNCBj7kHKE4hSfk0
>
> NOR (Sir porai nai) https://youtu.be/a3xtXuFm1Uk?si=OBgzvs7o4OeICsq0

digital IC Terminologies

open collector https://youtu.be/UhC01vS2UrE?si=S8s_0bNv-GUEC1Nb

Tristate logic op

enable pin

Clipping & Clamping ckts

https://youtube.com/playlist?list=PLstSxcpBGrtVbt4A3Ns1Rse0IEhaPpzdU&si=jey_llQQCo4vEwfd

Number systems

Boolean Algebra - POS & SOP https://youtu.be/K2cpJex0o_A?si=rO85Ba_n5OsM_TXs

Boolean function simplification/minimization,

   i)   **algebraic**
   ii)   **K-Map NESO**
   iii)   **QM Method** https://youtu.be/l1jgq0R5EwQ?si=c_BTpKHW3gN8Gedw

Logic implementations --- AOI, NAND only, NOR only mano ch-4

> NAND using functions https://youtu.be/1o0RPZeY8mQ?si=l134g8NBpK_jptob

NOR using functions https://youtu.be/7ias4tfwkhc?si=i4VoXAYV1RBJET7w

NAND NOR https://youtu.be/F2ATq6HYHpY?si=ekkYOOk0csnireKD

Combinational logic ckt implementation with MSI LSI chips mano

Flip-Flop Floyd

https://youtube.com/playlist?list=PLuYnCh-Sh1XdvuSGjQRi2jgUH9_CiVR8J&si=7Npz2W222xBth5Bc

ROM, PROM, EPROM, EEPROM, RAM ckts

All About ROM (Theory) https://youtu.be/Cd19ohX0770?si=7Wfm7TVhdNlY1ZOb

EPROM/FAMOS https://youtu.be/U6i8Xmi0Y20?si=Valc8eE5QtVBBj7T

EPROM Detailed https://youtu.be/cMZsldy0w6M?si=5Wt1VhYuK7wy1stX

Designing ROM https://youtu.be/sPCQA1_T1sI?si=kjzYdu8twotevJD4

6 MOS RAM https://youtu.be/vlHHFIrTTnA?si=PqswdCXSL6k95Xo3

4 MOS SRAM https://youtu.be/FVysGMhxd1s?si=sjdzgauueivoCUEz

1T DRAM https://youtu.be/wNNtz_My2ps?si=QVTpaJOiAYWWVaf9

PLD PAL PLA

PLD https://youtu.be/mAARXP46lQg?si=SL5a-m9BypnGLX9d

PLA https://youtu.be/IlPkJcQy2u8?si=BtSLzHKhaUp-zZHm

PAL https://youtu.be/qlq4NHk5Y_w?si=kK1OfNDJFK0-vspV

Sequential design procedure mano p/206-

Mano 6.5 state reduction, examples

counter & counter design vranesic

https://youtube.com/playlist?list=PLuYnCh-Sh1Xd5cLa-CfK883tPmJwrjSwF&si=nlnokxfV2wwF3Lml

IC Characteristics, sub-families Floyd ch-15

MOS NMOS & PMOS https://youtu.be/0iIkgUaZeLY?si=TzZR19iVVrvA6Ejx

NMOS Inverter, NAND ,NOR

Inverter https://youtu.be/vFDoRVTQII8?si=e5Gan3fuRuaBl0cJ

NAND & NOR https://youtu.be/ZxjhBr2S5do?si=d2fwCzvvFQ7WVAhp

 PMOS Inverter https://youtu.be/vFDoRVTQII8?si=e5Gan3fuRuaBl0cJ

CMOS inverter, NOR, NANND

NOR https://youtu.be/601dZ7NYJf4?si=VMad_JWONFQn54uD

NAND https://youtu.be/orNRyYhOtG8?si=lcA9XR9y5JYLrAne

Inverter https://youtu.be/6jLd02O8uo8?si=ZmCsNzMsEWxVXosp

Logic IC interfacing

Not sure, na pore bolte partesi na