<https://drive.google.com/drive/folders/1gMq1Za6bMzQDLMpRkuJ3oInsRV5_EP03>

I watched Rabaey Lectures, and some of us use to say Janaki Raman is easy to understand. Both of them are

good. You can follow any one of them. These lectures will give you the overall understanding of VLSI. So, better start your

preparation with this.

1. https://www.youtube.com/watch?v=aqQRbFiua48&list=PLC60146B6E190630B

2. https://youtube.com/playlist?list=PL3pGy4HtqwD1X9CXdgXMTVGjb7rYd-qr6

\*STA (Janakiraman Lec:66-77)

https://www.youtube.com/watch?v=jB4Mjt-SKTM&list=PL3pGy4HtqwD1X9CXdgXMTVGjb7rYd-qr6&index=66

\*\*\*Verilog by ISG (Lec: 1-24)

https://www.youtube.com/watch?v=FWE0-FOoE4s&list=PLUtfVcb-iqn-EkuBs3arreilxa2UKIChl

VLSI Physical Design by ISG (Lec: 1-30 --> just overview, 31-57, \*\*58-62 Low power design)

https://www.youtube.com/watch?v=lRpt1fCHd8Y&list=PLU8VFS-HdvKtKswbcvvA8yVhzleTV7OE8

Computer Architecture – NPTEL IITG (I recommend Lec:1-5 and 13-16)

https://www.youtube.com/watch?v=4goj-ajnpOQ&list=PLEAYkSg4uSQ3dmkbCah82ek0KJnpz\_DxL

\*\*Frequency Dividers

https://www.youtube.com/watch?v=cfgTki4dzLs

https://www.youtube.com/watch?v=TgsyQgliuYc

\*Physical Design issues (Team VLSI)

https://www.youtube.com/watch?v=RBrTiSXGF8w&list=PLC7JCwKQnjL7AOxgKHOAm1W2x8iOevWsl

\*\*Metastability (13.11-13.14)

https://www.youtube.com/watch?v=IoHFGe87Wi4&list=PLyWAP9QBe16quuNhHcf8STbkkNAlioNT2&index=11

\*Sync or Async reset

https://www.youtube.com/watch?v=Wdzo\_DpKKGA

FPGA design flow using VIVADO

https://www.youtube.com/watch?v=VYCWXaYLSWY

\*\*ADICs and VLSI CAD - ASD sir notes

VLSI Interconnects – Sarang sir notes

VLSI Technology – Fab steps (just overview)

\*\*Digital VLSI Circuits – IC sir class

Nanoelectronics – Short channel effects, scaling and FinFETs (just overview)

One more video playlist suggested by our seniors for digital design and computer architecture both

https://www.youtube.com/watch?v=AJBmIaUneB0&list=PL5Q2soXY2Zi\_FRrloMa2fUYWPGiZUBQo2

Also go through Dynamic Voltage and frequency scaling topics in internet for Low power Design

Eg: https://www.youtube.com/watch?v=mLrWGDkYqsQ&t=458s

https://www.youtube.com/watch?v=VsWBeWmzs9s&t=638s

Miscellaneous:

Interview questions (Some example blogs for VLSI)

https://vlsiuniverse.blogspot.com/p/interview-questions.html

Eg: Negative Setup and hold time

https://vlsiuniverse.blogspot.com/2017/01/negative-setup-time.html#

https://vlsiuniverse.blogspot.com/2017/01/negative-hold-time.html

http://km2000.us/franklinduan/articles/interviewq.htm

http://hellovlsi.blogspot.com/2014/05/verilog-stratified-event-queue.html

http://www.vlsi-expert.com/2011/03/static-timing-analysis-sta-basic-timing.html

Clock domain crossing

https://www.eetimes.com/understanding-clock-domain-crossing-issues/#

Global Setup and hold time

https://www.physicaldesign4u.com/2020/04/sta-iii-global-setup-and-hold-time-can.html

Verilog Compiler (To practice Verilog codes)

https://www.tutorialspoint.com/compile\_verilog\_online.php

Geeks for geeks

https://www.geeksforgeeks.org/c-programming-language/

Online C compiler (To practice C programs)

https://www.onlinegdb.com/online\_c\_compiler

Internet is the best source for preparation.

You can find lot more stuff in internet. I’ve just tried to give you some idea on how to basically gather your

preparation material.

https://drive.google.com/drive/folders/19xChr3-30lHgzTJGjaCrVBictVh1mEGS

https://drive.google.com/drive/folders/1WRoYI-u8JLhHXQQsmICs9l0CkMFM3273

<https://drive.google.com/drive/folders/1L8gJuGdYUTL6yfvwhvp1xZxIlmQxdb6a>