BITS Goa Women in Tech

Sneha Shah

2nd Oct 2020

AMA SESSION

About Me

- Studied Electronics and Instrumentation Engineering (because I didn't get CS or EEE :P)
- Took courses in CS, simultaneously did projects in electronics
- Thesis on Automatic Piano tuning at Aalto University, Finland
- Now working at Xilinx in the role of hardware validation

What exactly is the job of an electronics engineer? Do you do simulations or is it more of hardware hands-on work?

- Digital:
  - Architecture
  - Design
  - Testing
  - Software for hardware

- Can work with physical chips and simulations both

How do I know if I want to get into core electronics? How to gauge my interest and aptitude? How to explore the field?

Do projects, your courses, internships

Study

Do

Which courses are most relevant to your job as a hardware engineer?

Which are important electives (except ADVD) for someone who wants to pursue a career in core electronics?

How is DD course helpful in future for a field in digital electronics?

Relevant courses for digital profile

- Digital Design
- Microprocessors and Interfacing
- Computer Architecture

Which sem should we sit for placements if we want core job?

How can one prepare for placements if you don't have time due to Internships/PS?

How to make a strong profile for hardware jobs? Are there companies which recruit undergraduates every year for hardware profiles?

What role does CGPA play?

- First semester placements for core
- Find time to study your CDCs during internship
- Do many projects and learn your concepts well
- Show interest!!
- CGPA for placements: above 7
- Companies:
  - Intel, Qualcomm, Western Digital, Analog Devices, TI, Xilinx, Ola Electrical, Cadence
  - TI, Signalchip

Do you plan on going for masters?

How does work experience affect masters applications for core?

Is it important to pursue an MS if we want to progress higher in engineering jobs?

- Many apply for masters straight after Bachelors, experience is not necessary (internships might be helpful though)
- As far as I know, MS is not a necessity for a career in electronics

How to get a thesis if I have a low CG and limited or no projects or skills to show?

Will the pandemic affect students planning to go for thesis?

- There are still positions in many labs despite pandemic
- Some universities are taking students for on campus thesis
- Others are having WFH
- Showing interest is very important

What are the must learn softwares for an electronics graduate?

Learn a language.

- Varies from job to job.
- Learn the softwares from college well.
- Suggestions:
    - Any coding language
    - Bash (just the basics)
    - MATLAB
    - Analog - Awani?
    - Digital - Verilog(DD), assembly language(MuP)

Summary

There is no one (or 2, or 3) right way to plan your future - you will get many different kinds of advice. As long as you show genuine interest and put in effort, you will find a way.

Try to do projects and internships in roles you are interested in.

Do some research, talk to people, try to understand the work on a daily and long term perspective.

Keep trying to learn more and do more projects.

Pro tip: Don't keep comparing yourself with others

Thank you!

If you have any further questions, you can email me at shahsnehakk@gmail.com