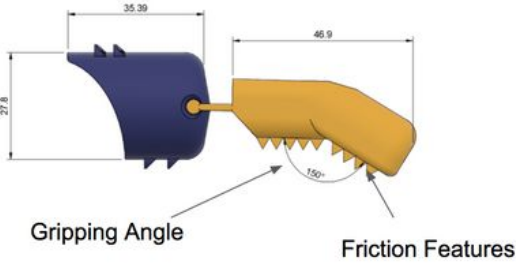
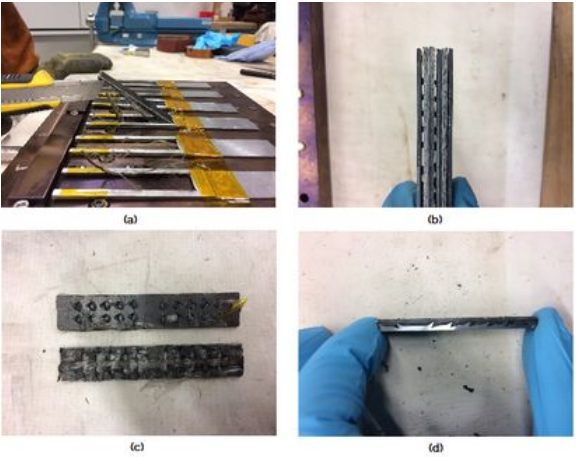
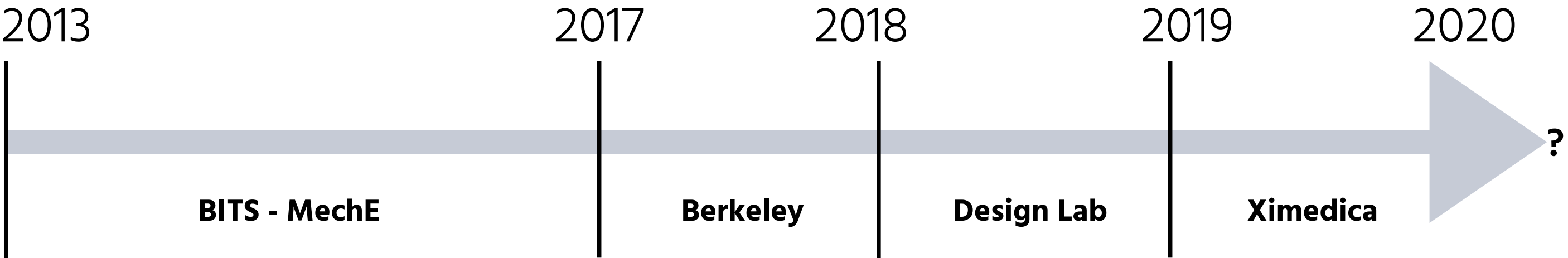


AMA  
JULY 2020



2013A4TS377G

■  
Intro



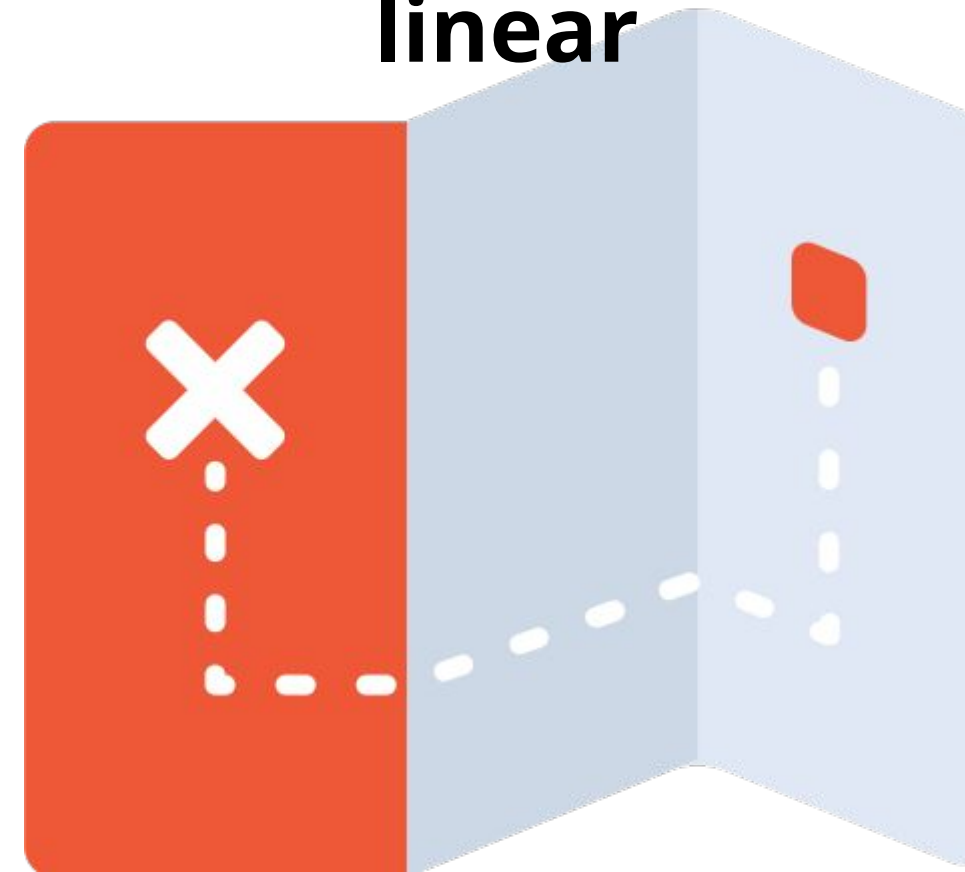
- Artificial womb
- RF Ablation Device





- What motivated you to pursue biomedical engineering after graduating from BITS?
- Did you have any idea that you will pursue this field when you were studying mechanical engineering at BITS?
- Is it very difficult to change tracks into bioengineering without having an MSc. Biology?
- Is this a stereotype to have knowledge about biology before entering into the field of biotechnology?

## The road map is never linear



Prithiv, data scientist at C3ai: **Chemical**

Devina, data scientist at Cruise: **Manufacturing**

Aabir AK, data scientist at Zipline: **MechE and Physics**





- How did you foray into a biology related stream after pursuing your major in Mechanical Engineering?
- What kind of courses did you take up for this change of stream?
- What should one do if one wants to switch to an interdisciplinary field?

Skill 1

Skill 2

Skill 3

Skill 4

**A project**

**Your  
specialization**

**Your major**



- How did you foray into a biology related stream after pursuing your major in Mechanical Engineering?
- What kind of courses did you take up for this change of stream?
- What should one do if one wants to switch to an interdisciplinary field?

CAD and  
Rapid  
Prototyping

Simulations  
(Stress,  
thermal)

Electro-mech  
anical  
module dev

Design of  
experiment  
using Minitab

## Active Prosthetic Hand

### Biomechanics

Orthopedics, surgical implant design, Prosthetics, Design for the human body

### Mechanical Engineering

- Solid mechanics
- Kinetics of Machines
- Thermodynamics
- Fluid Mechanics
- CAD (**GD&T = God**)
- Workshop!





- What are the best fields to incorporate both Bio + mech in terms of opportunities?
- For a chemical engineering student at BITS who wants to pursue a master's in nanotech/biomedical engineering, what should their profile look like during application?

## Bio+Mech

- Orthopedics
  - Knee
  - Spine
  - IM Rods
- Prosthetics
  - Exoskeleton
  - Hand/Leg
- Pacemakers
- WEARABLES!
- Auto-injector pens
- Electrosurgical devices
- Catheters and stents
- Diagnostics
- Robot-assisted surgery

## Bio+Chem

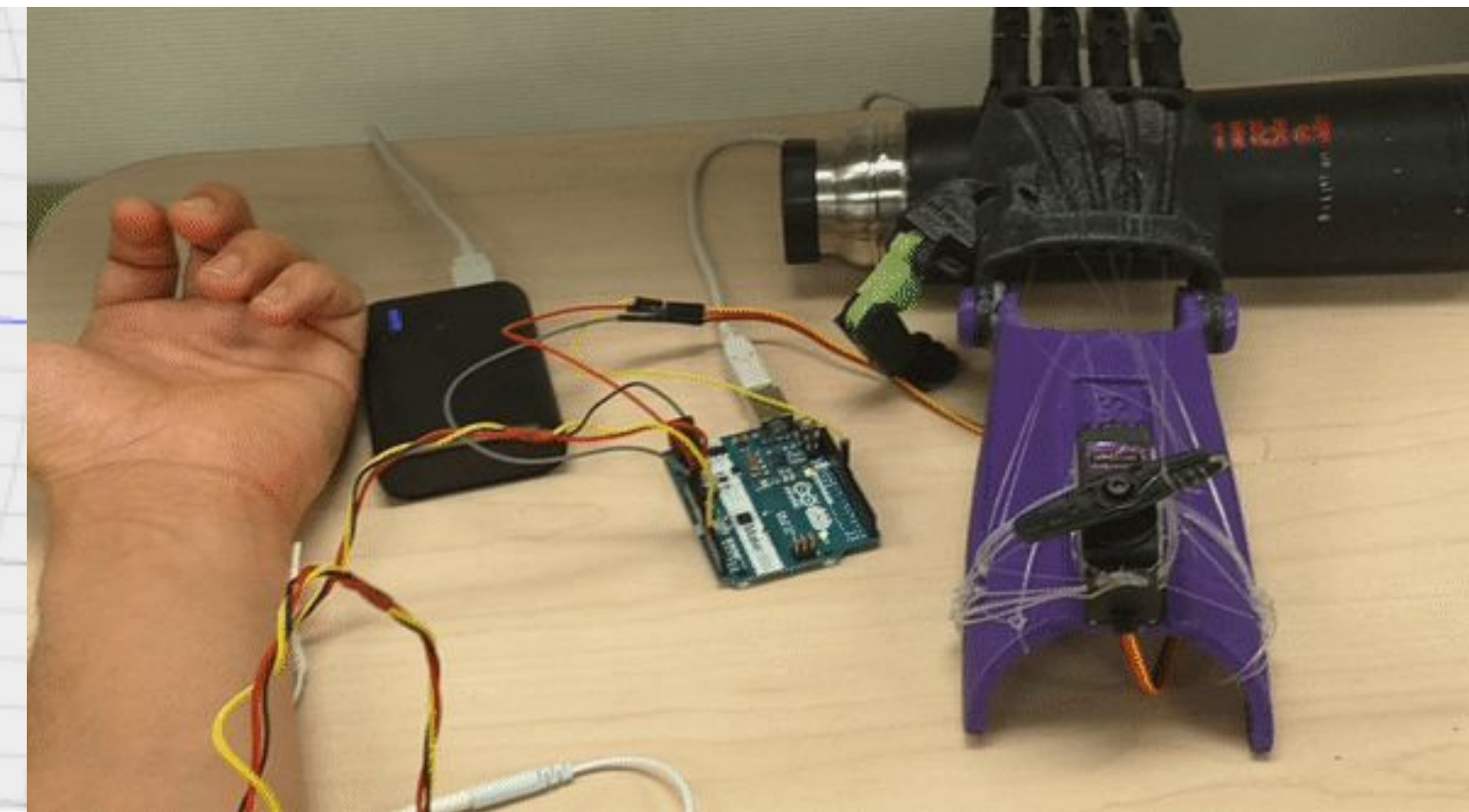
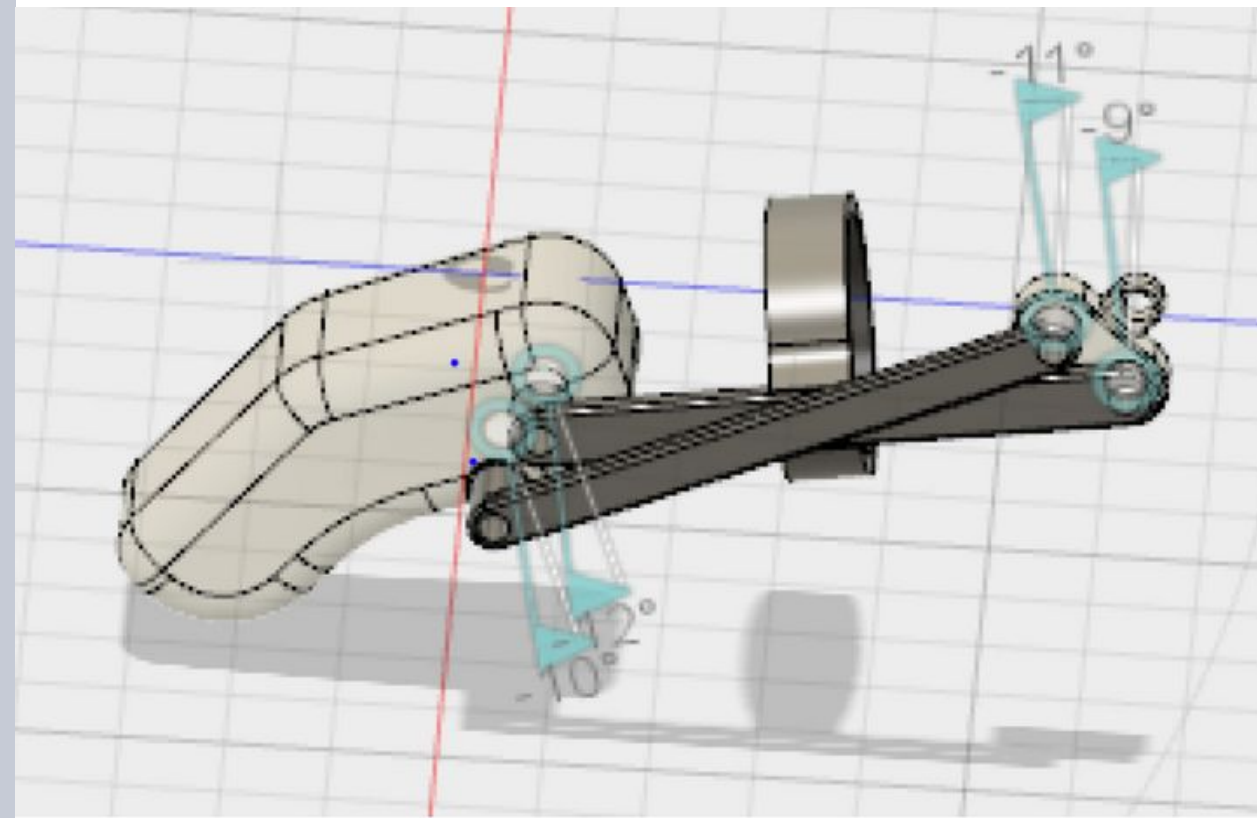
- Genomics
- Microfluidics
- Diagnostics
- Synthetic Biology
- Computational Biology
- Bioinformatics
- Process Engineering
- Domain specific data science roles







- With the kind of work you do right now, are the concepts of mechanical engineering used by you?
- How is working for RnD in a bio-based domain?
- What are some of the key skills that one should focus on building if they want to get into product design and development?



Arduino  
3D Materials  
Printing Sensors  
Solidworks CAD  
Simulations  
Micro-fabrication  
Rapid prototyping  
Adobe Suite  
Fusion 360  
Keyshot  
Thermal  
Illustrator  
Bluetooth  
Rendering  
Pro E  
CREO  
CNC

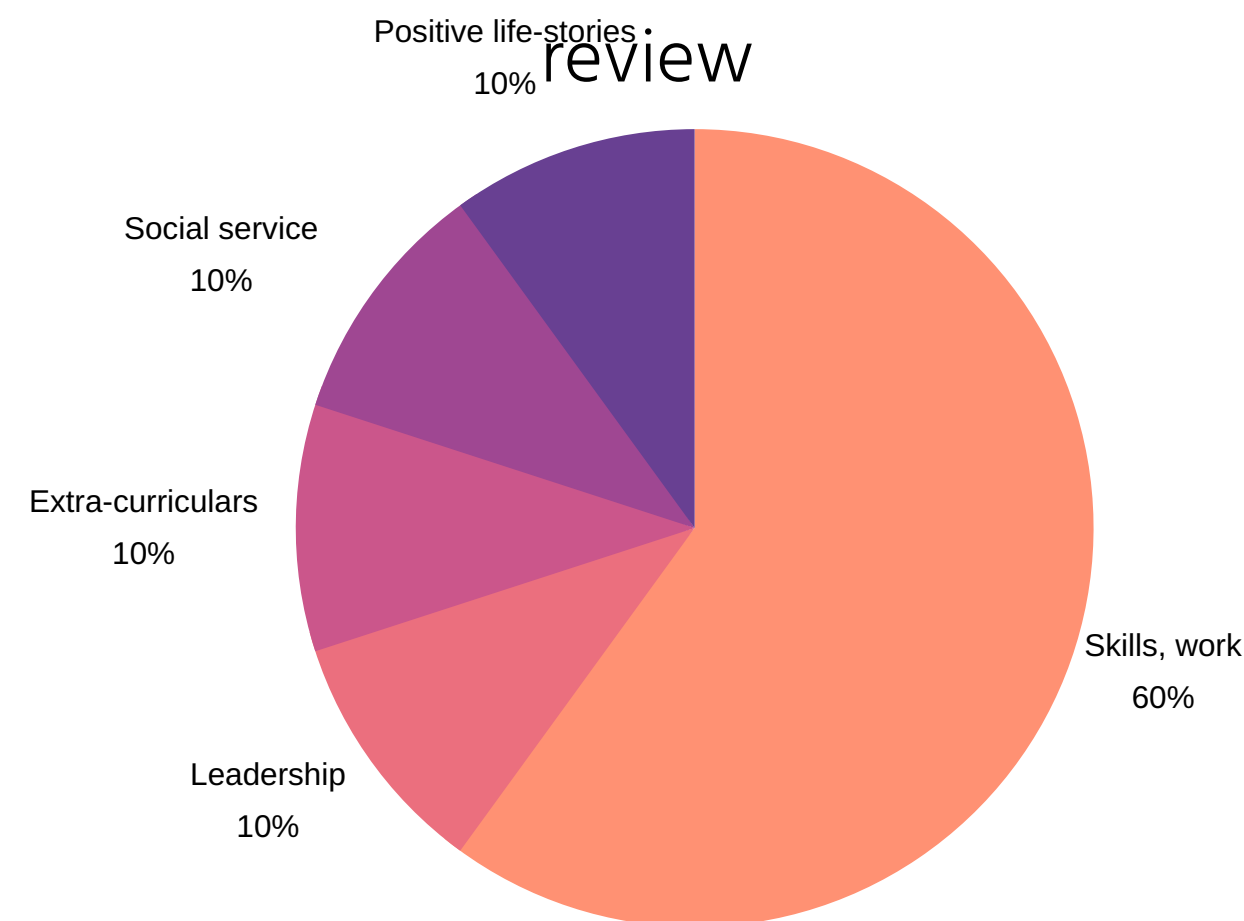


- What is the minimum CG you should have for doing MS from a good college and how should we start preparing for GRE?
- What should I do to get an admit from an ambitious university?

Work experience > Personal Project >  
Academic projects/Thesis > Online  
license/certifications > Coursework

**GRE: > 330**  
**CGPA: > 8/8.5**  
**TOEFL: > 115**

SOP: Review, review,







- Could you talk about any scholarships that you got for travel and accomodation?

- Inlaks Shivadeni Foundation
- Prodigy Finance - Loans without collateral
- JN Tata Endowment - Loans without interest
- Fund-raising platforms (e.g. Keto)
- Alumni





- How has COVID and the recent issues in the US affected your opinion of further study in the USA?



*"These are a few of my favorite things"*



# Thank you

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