IIT Hyderabad
Mechanical and Aerospace Engineering

2022 - 2023

One of the most unique departments in IITH offering both Aerospace and Mechanical Engineering degrees.

Our students are well equipped to excel in multidisciplinary areas such as industry, research, or academia largely owing to a well-rounded curriculum that focuses on both core and IT subjects.

CURRICULUM

CORE COURSES

Control Systems
Instrumentation
Dynamics and Vibrations
Solid Mechanics
Fluid Mechanics
Power and Refrigeration
Manufacturing Science
IC Engines
Modelling and Simulation
Machine Drawing and Solid
Modelling
Design of Machine and
Transmission elements

MATH COURSES

Linear Algebra
Probability
Transform Techniques
Intro to Statistics
Complex Variables
Differential Equations

CSE/AI COURSES

Introduction to
Programming
Introduction to Artificial
Intelligence

COURSES DONE AS ELECTIVES

CSE / AI ELECTIVES

Data Structures and Applications
Algorithm and Data Structure Lab
Artificial Intelligence

MATH ELECTIVES

Vector Calculus
Series of Functions

LA/CA ELECTIVES

Introductory Economics
Intro to Entrepreneurship
HR and Leadership
Spoken Japanese Basics
Japanese Reading and Writing
Japan and its Culture
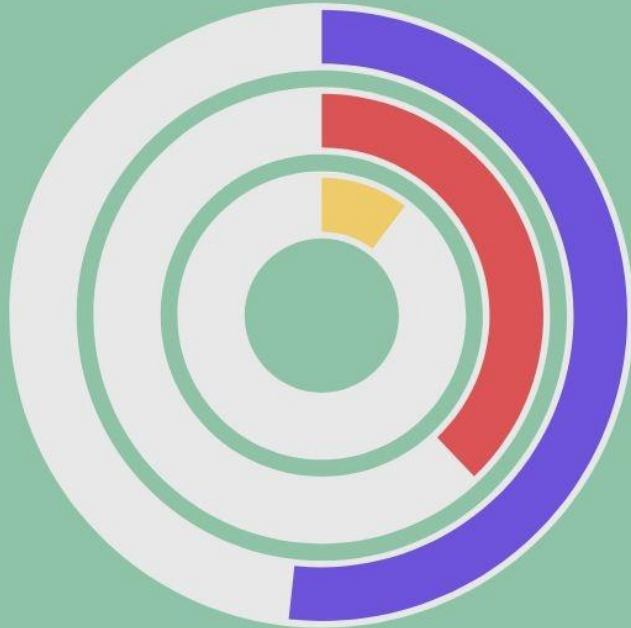
MAJOR / MINOR / HONORS

Many of our students enroll for major or minors in other departments, which gives them an edge over the remaining students. Honors in the same department allows our students to learn more and have better understanding of their core concepts.

Here are a few statistics of the same:

HONORS	6
CSE MAJOR	1
AI MINOR	1

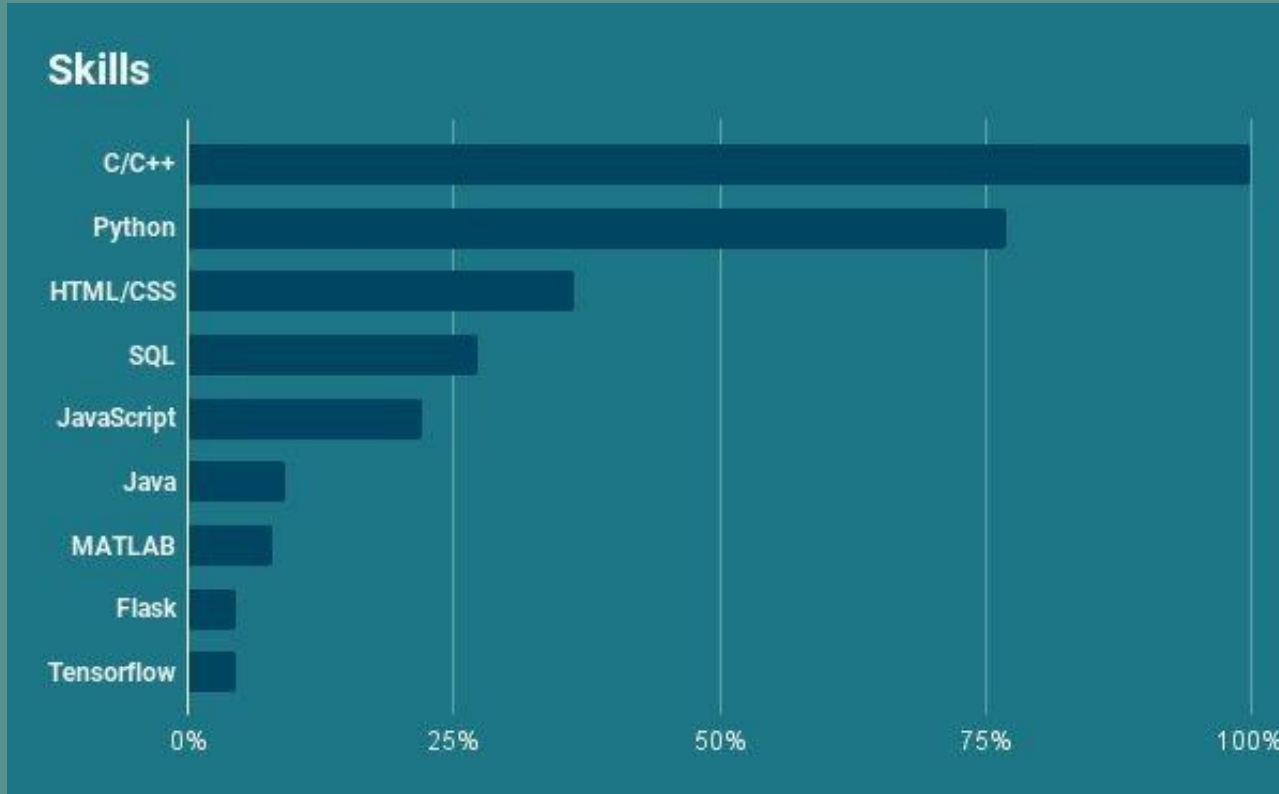|	
ENTRE. MINOR	5
ECON. MINOR	5
EE MINOR	2

ONLINE COURSES

Online Courses

Machine Learning • Python and automation • Computer Science Fundamentals

The graph shows the percentage of students who have taken up various online courses for self learning.

These courses were offered by **Andrew Ng, Stanford University, MIT, Duke University, HarvardX, UCSD, Coursera** and **Udemy.**

In the wake of the pandemic, our students have strived to increase their knowledge and expertise in multi-dimensional fields.

PROGRAMMING LANGUAGES AND FRAMEWORKS

Skills

Skill	
C/C++	~100%
Python	~76%
HTML/CSS	~36%
SQL	~27%
JavaScript	~22%
Java	~9%
MATLAB	~8%
Flask	~4%
Tensorflow	~4%

The graph displays the relative familiarity with various software tools.

Proficiency in such skills allow our students to be at par with students of circuital branches and to formulate solutions for problems in all fields.

PROJECTS

A lot of our students take up projects under professors to gain hands on knowledge and experience in the field of science and technology. A few of them are listed below.

- Face recognition and detection using haarcascades and OpenCV.
- Segmentation of aerosol particles based on diameter using a deep learning CNN model.
- Project based on Gantt chart to create an angular library.
- Deep learning project based Brain Tumor Multi-Classification using scale space feature extraction technique.
- Analysis of a QZS isolator.
- Running models on the OpenAI gym environments and analysing performance using Reinforcement Learning.
- Service registration form using Google App Script.
- Optimizing products and customers using ABC Analysis and then applying Base Stock Policy.
- Developing efficient pipelines with high fault tolerance using various ML models. Adapting the pipeline with a pre-trained human detection YOLO ML algorithm.
- Topology Optimization: Anisotropic Modeling of 3D Printed (Fused Deposition Modeled) Parts

PAST RECRUITERS FOR INTERNSHIPS

- **Goldman Sachs** as a Software development engineer intern.
- **NTT-AT** as an AI/ML intern.
- **Microsoft** as a Software developer intern(SDE).
- **Oracle** as a Software developer intern(SDE).
- **UST Global** as a Software developer intern(SDE).
- **Yokogawa** as an AI/ML intern.
- **Publicis Sapient** as an Associate Data Scientist intern.
- **CrystalBall** as an Optimization Intern.
- **KLA Tencor** as a Software Developer intern(SDE).
- **Adiabatic Technologies** as a mechanical intern.
- **Wavelabs Technologies** as a Software developer intern(SDE).
- **Suzuki Tech** as an App development intern.
- **Guardian Holdings** as a management intern.

COMPANIES FOR PLACEMENTS

- **Microsoft**
- **Goldman Sachs**
- **Amazon**
- **Suzuki**
- **NTT**
- **Riskcovry**
- **Zomato**
- **Zenoti**
- **I'm beside you**

- **Oracle**
- **HCL**
- **Mercedes-Benz**
- **Honeywell**
- **Sprinklr**
- **Rakuten**
- **PepsiCo**
- **Siemens Gamesa**
- **Go Guardian**

RESEARCH INTERNS/ HIGHER STUDIES ABROAD

CONTACT DETAILS

OFFICE OF CAREER SERVICES (OCS),
INDIAN INSTITUTE OF TECHNOLOGY, HYDERABAD, TELANGANA,
INDIA-502285.

✉ **office.placement@iith.ac.in**

☎ **040 2301 6810**
040 2301 7066

INTERNSHIP COORDINATORS

P. Rupin : me20btech11034@iith.ac.in   Kishore: me20btech11024@iith.ac.in
Nikhil S. : me20btech11042@iith.ac.in   Sruthi: me20btech11040@iith.ac.in
Santosh K. : me20btech11004@iith.ac.in   Vishnu V: me20btech11060@iith.ac.in