

Frequently Asked Questions-B Tech in AI & DS

1. What is the basic difference between B. Tech in CSE, IT and AI & DS Engineering?

Ans- Computer Science & Engineering involves learning about programming which includes **learning the basics of programming, algorithms, data structures, complexity theory, & Computer hardware. It deals with computation.** Learning design and development with core subject.

Information Technology refers to the **application of technology to solve business processes.** It also intends to **improve a technological depth of knowledge and skills in analysis, design, implementation,** and use of both information technology core skills and specialization skills. **Learning design and development with core subject.**

AI & DS Programme prepare students with the skills to perform **intelligent data analysis from structured and unstructured data** which is a key component in numerous **real-world applications.**

2. What is the difference between Curriculum of CSE, IT and AI & DS Engineering?

Ans-CSE/IT- Computer Hardware, Data Structures, Computer Architecture, Operating System, Computer Networks, Network Security, Software Engineering, IoT, Cloud computing Web Technology, DBMS, AI as a single course, Data science as a single course HCI, Compiler, STQA, AWT etc.

Generalized courses-broad spectrum.

AI & DS-Data Structures, DAA, OS, CN, Database & Data Mining-

Core subjects of CSE/IT, Data Science, Statistical Model and Inference

Business Intelligence, Data Analytics, Data Visualization, Optimization Techniques, Artificial Intelligence, Machine Learning, Deep Learning, ANN, Electives-IoT, Robotics, ARVR, Block chain Technology, Image Processing and CV, Network & Cyber Security, Cloud Computing, etc.

Specialized courses with Core of CSE & IT.

3. What are the Highlights of B Tech in AI & DS Engineering?

Ans- Focus on AI and DS as Stream with many subjects- System S/w, DS, OS, CN, DAA, & DBMS etc. AI as a separate Stream. DS as a separate Stream. AI and DS in depth coverage with multiple subjects pertaining to each Stream. **Super Speciality in AI and DS with fundamentals common in CSE and IT.**

4. What are Career Prospect / Job Roles for CSE Engineer, IT Engineer and AI & DS Engineer?

Ans-CSE/ IT Engineer- Software developer, Database Administrator, Information Security Analyst, Full Stack Developer, Computer Systems Analyst, Network Security Engineer, System Developer, Computer Programmer, Business Analyst, Network administrator, Computer Network Architect, Principal Architect etc.

AI & DS Engineer-Software developer, Database Administrator, Information Security Analyst, Full Stack Developer, Computer Systems Analyst, Network Security Engineer, System Developer, Computer Programmer, Business Analyst, Network administrator, Computer Network Architect, Principal Architect, **Data Engineer, Data Analyst, Data Scientist, Principal Data Scientist, Machine Learning Engineer, Data Engineer/Data Architect, Research Engineer, Algorithm Engineer, Machine Learning Analyst, Computer Vision Engineer, Data Sciences Lead, Data Manager, Machine Learning Scientist** etc.

5. What are Job Opportunities available for AI & DS Engineer in India?

Ans- The future is Automation. The scope for AI & DS is tremendous. There are tremendous job opportunities available in IT sector in India. Almost every company started AI & DS division. **Ex-Ola, Uber, Amazon, Flipcart, Movie recommendations, Product recommendation, YouTube recommendations or Spotify genre suggestions, Googlemap, autonomous car, Alexa, Autonomous car, Robotics, Health Analytics, etc. Post covid-19 situation, there is lot of scope for Start-ups in AI and DS domain.**

6. Which are the Industries Hiring AI & DS Engineers?

Ans- Amazon, Flipchart, Google, Apple, Facebook, Samsung, NVIDIA , Microsoft, IBM, Accenture, acebook, Intel, Samsung, Lenovo, Adobe, MoTek Technologies Ola, Uber, PCO Innovation, Rakuten Marketing, Wells Fargo, ToMToM, Xoriant , Avaya, Morgan Stanley, Siemens, Symantec, Airtel , NVidia, TIFR, Wolters Kluwer Financial Services, J P Morgans, Mathworks, InfoGen Labs, Mobiliya, Simens, Persistent, Hexanika, OpexAI, Lenovo, HDFC Bank,FMGC, Snapdeal, ISRO, Whatsapp, LinkedIn, CISCO, Barclays, GSlab, HSBC, Quick Heal, Symantec, Government Sectors and Many More.

7. What is the Impact of AI & DS on various sector and Future scope?

Ans-2.3 Millions of Jobs in AI & DS in Future (Gartner Report)

- ❑ **AI & DS impact on various sectors-** Healthcare, Automotive, Financial Services, Retail, Technology, Manufacturing, Energy, Transport and Logistics, Robotics etc.

8. What are the skills of CSE, IT and AI & DS Engineer?

Ans- CSE /IT- Analytical skills, Creativity, Problem-solving skills, Critical thinking skills, Communication skills, Leadership skills, Self Learning, Hardware Knowledge.

AI & DS- Analytical skills, Creativity, **Data Driven Problem-solving skills**, Critical thinking skills, Communication skills, Leadership skills, Self Learning, **Mathematics and Algorithms Knowledge**, **Cognitive Computing etc.**

9. What are the Packages for CSE/IT Engineer and AI & DS Engineer?

Ans-CSE IT Engineer Packages-5 to 30 Lakhs, **Average Salary-**10 Lakhs

AI & DS Engineer Packages-8 to 35 Lakhs, **Average Salary-**12 Lakhs

10. What are the MS Opportunities after completion of B Tech. in CSE/IT, and AI & DS?

Ans-Equal MS opportunities are available for CSE/IT and AI & DS Engineer. Most of the top universities are offering MS in AI & DS.

11. What are the Government of India Initiatives in AI & DS?

Ans-The government has launched a national Artificial Intelligence portal- www.ai.gov.in. **Nasscom, in collaboration with Niti Aayog's Atal Innovation Mission (AIM)**, launched an artificial intelligence (AI) based module for students of Indian schools.