Programme: B.Tech. and M.Tech. (Dual Degree)
Branch: Artificial Intelligence and Data Science

Introduction:

Artificial Intelligence (AI) and Data Science (DS) gain its significance due to the exploration of Internet. With the rapid growth of computers and computing, AI and DS are inevitable and provide powerful solutions to smart environments including Internet of Things and Industry 4.0.

Building human-level thought processes through the creation of artificial intelligence (AI) is the state-of-the-art in Computer Science. Intelligent machines are influenced by emerging technologies, smart devices, sensors, computing power, faster data processing, huge storage and human-machine interaction capabilities. Data Science is an interdisciplinary field with the ability to extract knowledge/insights from data - be it structured, unstructured, or semi-structured data. Twinned with Artificial Intelligence, more efficient solutions to find meaningful information from huge pools of data are possible today, with data from multiple sources - sensors, images, streaming video, satellite, medical imagery and the cloud. This B.Tech. and M.Tech. (Dual Degree) programme has a comprehensive coverage of applied statistics and mathematics used in data science and artificial intelligence while preparing the students to analyze, design and experiment solutions to problems.

The curriculum targets technical and design skills, AI knowledge, and competencies needed to master strategic analytical methods and tools, and data management, with the objective of creating innovative strategies to solve challenging real-world problems. The programme will equip the students to deliver data driven solutions using computational principles, methods and systems for extracting knowledge from data and modern computational systems that demonstrate capabilities of perception, reasoning, learning and action that are typical of human intelligence.

Program Outcomes:

1. Enable students to design and harness the power of AI in broad application fields from vision to advanced autonomous systems.
2. Examine large amounts of data to uncover hidden patterns, correlations, insights, and help organizations harness their data to identify new opportunities.
3. Obtain expertise to turn actionable insights and cutting-edge technology into innovative products towards solving real-world problems.
4. Effectively communicate findings in terms of reports and presentations.
5. Inculcate independent research ability that addresses fundamental problems.

Objectives:

The broad objectives of the programme are as follows:

To gain thorough knowledge in Artificial Intelligence and Data Science subjects.

To examine large amounts of data to uncover hidden information.

To be able to turn actionable insights and cutting-edge technology into innovative products towards solving real-world problems

Eligibility:

Higher Secondary (10+2) with science stream and mathematics as a subject with at least 50% marks in aggregate or an equivalent grade for General/OBC candidates, and 45% marks in aggregate or an equivalent grade for SC/ST and Differently Abled (DA) categorycandidates from a recognized Board.

Age Limit:

No age limit as decided by the Devi Ahilya Vishwavidyalaya / State Govt. for U.G. programmes.

Admission Procedure:

The admission of Indian students will be done as per merit developed on the basis of score of CUET-UG conducted by NTA.

Direct admission of NRI/ Foreign Students without entrance test (CUET-UG), but Foreign students should have working knowledge of English.

Syllabus for Entrance Test

The candidate has to appear in the subjects as decided by the University for admission in this programme. The syllabus of such subjects will be as per NTA.

Seats: Seats for Indian Students: 60 (reservation as per state Govt. rules).

Total Seats	URO	URF	STO	STF	SCO	SCF	OBO	OBF	NRI
60	18	9	8	4	7	3	6	2	3

Additional Seats:

Total Seats	EWS	EW-T	EW-NT	PIO/ Foreign
17	6	1	1	9

Duration: **Ten Semesters** (Five Years).

Fee Structurefor Batch 2023-28:

Semester	Academic Fee	Development & Maintenance Fee	Students' Services Fee		Examination Fee	Total (Rs.)	
			Boys	Girls		Boys	Girls
Odd	20000	12500	3630	3422	2750	38880	38672
Even	20000	12500	3202	2994	2750	38452	38244

Fees structure for the batch 2024-29 is under revision.

- Alumni fee of Rs. 500 will be charged extra in the first semester.
- If a student repeats a paper(s) in a semester, an additional fee of Rs.500/- per paper shall be payable.
- Hostel Fee and Central Library Fee will be extra.
- For NRI/ NRI Sponsored/ PIO/ Foreign Nationals Belong to SAARC or BIMSTEC: Fee in each semester will be 2.5 times of the above mentioned existing total fee.
- Foreign Nationals Belong to other than SAARC or BIMSTEC: Fee of US$ 3500 per annum shall be payable on yearly basis.
- Caution Money (Refundable) and Alumni Fee (Chargeable in the First Semester):

Category	Caution Money	Alumni Fee
For Indian Nationals	Rs. 4,000	Rs. 500
For NRI/ NRI Sponsored/ PIO/ Foreign Nationals Belong to SAARC or BIMSTEC	Rs. 10,000	Rs. 1,000
Foreign Nationals Belong to other than SAARC or BIMSTEC	USD 500	USD 100

Learning Outcomes:

After completing the programme the students will become experts in Artificial Intelligence and Data Science. They will have the necessary functional and practical knowledge in Programming and Statistical Techniques for Data Science along with Data Scrapping and Data Wrangling. They will also be competent in Big Data Technologies, Machine Learning, Artificial Intelligence, Cloud Computing, Deep Learning and Advance AI Applications and be able to handle diverse Data Science domains in different organizations.

Award of Degrees:

B.Tech. and M.Tech. degrees will be awarded simultaneously on successfully completion of the programme.