



**AMRITA**

VISHWA VIDYAPEETHAM  
DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF UGC ACT, 1956

SCHOOL OF  
ARTIFICIAL  
INTELLIGENCE

Amritapuri | Coimbatore



# M.TECH ARTIFICIAL INTELLIGENCE

IS ARTIFICIAL INTELLIGENCE  
MIND-BLOWING? **DISCOVER**  
AND **MASTER IT** AT AMRITA!

## INTRODUCTION

Artificial Intelligence, aka A.I., is the buzzword of 2023-2024 and is now the most formidable and revolutionary force reshaping the landscape of technology and engineering. This multidisciplinary field integrates computer science, machine learning, data science, and cognitive computing to develop intelligent machines that simulate human intelligence. For prospective engineering students, diving into the realm of A.I. presents a world of possibilities, innovation, and limitless career potential.

## UNDERSTANDING ARTIFICIAL INTELLIGENCE

A.I. is not just a famous axiom; it's a dynamic field with diverse applications. It encompasses machine learning, where systems learn and improve from experience; natural language processing for human-computer interaction; computer vision for image and pattern recognition; and robotics for creating intelligent agents that can interact with the physical world.

Amrita Vishwa Vidyapeetham is offering M.Tech in Artificial Intelligence at Amritapuri and Coimbatore Campuses

## CAREER PROSPECTS IN ARTIFICIAL INTELLIGENCE



### High Demand

The demand for A.I. professionals is skyrocketing across various industries. Companies are eager to harness the power of A.I. to optimize processes, gain insights from data, and create innovative solutions. As a result, A.I. experts are among the most sought-after professionals in the job market.



### Versatility of Roles

A.I. opens up a spectrum of career paths. From machine learning engineers and data scientists to A.I. researchers and robotics engineers, the versatility of A.I. skills allows professionals to explore different domains. This adaptability makes A.I. experts valuable contributors to industries ranging from healthcare and finance to manufacturing and entertainment.



### Interdisciplinary Skills

Similar to Mechatronics, A.I. demands multidisciplinary skills. Engineers in A.I. need a strong foundation in computer science, mathematics, and data analysis. This blend of expertise allows them to develop solutions that leverage advanced algorithms and address real-world challenges across diverse sectors.



### Industry 4.0 Integration

A.I. plays a pivotal role in Industry 4.0, the ongoing trend of integrating digital technologies into manufacturing. A.I.-driven automation, predictive maintenance, and smart factories are reshaping industries, offering A.I. professionals opportunities to drive innovation in the evolving technological landscape.



### Global Relevance and Remote Opportunities

A.I. has an international appeal, with industries worldwide embracing its transformative potential. The nature of A.I. work also lends itself well to remote collaboration, providing professionals with opportunities to work on projects across borders and contribute to global advancements.

## JOB MARKET FOR A.I. ENGINEERS

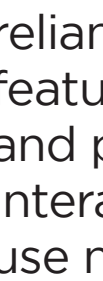
As of the latest estimates, the job market for A.I. professionals reflects a promising outlook:

ENTRY-LEVEL	MID-LEVEL 5 to 10 years	SENIOR-LEVEL 10+ years
₹500,000 ▲▼ ₹800,000	₹800,000 ▲▼ ₹1,200,000	₹1,200,000 ▲▼ ₹2,000,000+

## WHERE CAN A.I. ENGINEERS WORK?

Embracing the world of Artificial Intelligence opens up an exciting journey for prospective engineering students. With its transformative potential, interdisciplinary nature, and global relevance, A.I. offers a future-proof career path in the ever-evolving technological landscape.

A.I. engineers possess a passport to diverse industries and job roles, including:



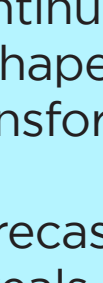
### Healthcare

Artificial Intelligence (A.I.) is revolutionizing healthcare in multiple ways. In diagnostics, A.I. is being utilized to analyze medical imaging data, such as X-rays and MRIs, to assist in the early detection of diseases and abnormalities. Personalized medicine involves tailoring treatment plans to individual patients based on their genetic makeup. A.I. is key in analyzing complex genetic data to provide personalized and effective treatment strategies. Moreover, A.I. is streamlining administrative tasks, optimizing scheduling, and improving overall operational efficiency in healthcare operations.



### Finance

A.I. has become a cornerstone in the financial industry, particularly in risk assessment, fraud detection, and algorithmic trading. Risk assessment models powered by A.I. analyze vast amounts of financial data to evaluate potential risks and market trends, assisting financial institutions in making informed decisions. Fraud detection systems employ A.I. algorithms to identify unusual patterns and activities, enhancing security measures. Additionally, algorithmic trading relies on A.I. to execute trades at high speeds, leveraging data analytics to make split-second investment decisions.



### Manufacturing

The integration of AI-driven automation is transforming manufacturing processes. A.I. systems optimize workflow in production by predicting equipment maintenance needs, minimizing downtime, and ensuring efficient resource utilization. Quality control benefits from AI-powered image recognition and analysis, enhancing product quality and reducing defects. Overall, AI in manufacturing contributes to increased productivity, cost efficiency, and the ability to adapt to dynamic production demands.



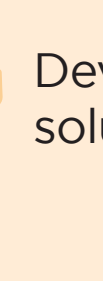
### Entertainment

A.I. has become a driving force in the entertainment industry. Content recommendation algorithms use A.I. to analyze user preferences and behavior, providing personalized suggestions for movies, music, and other forms of media. A.I. enhances user experiences by creating dynamic and adaptive gameplay scenarios in gaming. Virtual reality experiences are also improved through A.I., offering immersive and interactive content tailored to individual user interactions.



### Technology

The development of smart devices, virtual assistants, and autonomous systems is heavily reliant on A.I. Smart devices leverage A.I. for features like voice recognition, facial recognition, and predictive analytics to enhance user interactions. Virtual assistants like Siri and Alexa use natural language processing and machine learning to understand and respond to user commands. Autonomous systems, including self-driving cars and drones, use A.I. algorithms to navigate and make real-time decisions in complex environments.



### Research and Development (R&D)

In the ever-evolving world of research and development, A.I. researchers are at the forefront of advancing the boundaries of artificial intelligence. They create innovative algorithms, explore new machine-learning techniques, and solve complex problems to push the field forward. A.I. research contributes to breakthroughs in various domains, ranging from natural language processing and computer vision to reinforcement learning and robotics.

## ANTICIPATED INDUSTRIAL GROWTH FOR A.I. IN THE NEXT 5 YEARS

An expected surge in the adoption of artificial intelligence across diverse sectors marks the anticipated industrial growth for A.I. in the next five years. Industries are projected to witness increased integration of A.I. technologies, leading to enhanced efficiency, productivity, and innovation. Key growth areas include the widespread implementation of AI in data analytics, predictive modelling, and automation. Additionally, industries will likely invest heavily in AI-driven solutions for addressing specific challenges, such as personalized customer experiences, supply chain optimization, and sustainability initiatives. The continuous evolution of A.I. capabilities is anticipated to reshape business models and pave the way for transformative advancements across various industries.

Forecasting the trajectory of A.I. over the next five years reveals a landscape characterized by



## WHY PURSUE AN M.TECH IN ARTIFICIAL INTELLIGENCE AT AMRITA?

### CUTTING-EDGE LABS & FACILITIES

Specializations in Artificial Intelligence mark a transformative shift in the educational paradigm. These specialized courses equip future engineering leaders with the skills to harmonize human creativity with technological prowess. They enable individuals to unravel intricate datasets, construct predictive analytics models, and unveil actionable insights crucial for informed decision-making in an era dominated by data.

Choosing an M.Tech in Artificial Intelligence at a reputable Amrita Vishwa Vidyapeetham provides students with:

- MACHINE LEARNING LAB
- NATURAL LANGUAGE PROCESSING LAB
- ROBOTICS AND AUTOMATION LAB
- DATA SCIENCE LAB
- COMPUTER VISION LAB
- A.I. ETHICS AND GOVERNANCE LAB

### HANDS-ON PROJECTS

- Engage in real-world projects to solve complex challenges.
- Develop practical expertise in implementing A.I. solutions.

### RESEARCH OPPORTUNITIES

- Collaborate with seasoned faculty members on cutting-edge research projects.
- Contribute to the dynamic landscape of A.I. advancements.

### PLACEMENT OPPORTUNITIES

Amrita has a stellar track record of providing placement avenues for M.Tech Artificial Intelligence graduates. Tailored to align with industry requisites, the program thoroughly equips students for demanding roles in the constantly evolving A.I. sphere. Leveraging the university's robust ties with industry, coupled with the acquired skill set from the program, students gain access to promising and rewarding career prospects in the field.

### FUNDED PROJECTS : DISCOVERING NEW FRONTIERS

Through our funded initiatives, we spearhead groundbreaking endeavors. From the creation of a mobile application for the early detection and monitoring of plant diseases to fostering inclusivity through sign language accessibility, our projects redefine possibilities. With O.Labs NextG, we're shaping the next generation of online laboratories, revolutionizing educational experiences. Empowering teachers and girls alike with digital literacy, we pave the way for STEM exploration and innovation, nurturing a future of limitless potential.

## AMRITA M.TECH ARTIFICIAL INTELLIGENCE 2024 ADMISSION OPEN APPLY NOW

### GAIN THE M.TECH ADVANTAGE WITH SCHOLARSHIP SEATS.

Study with Monthly Stipend

### MAKE IT Possible WITH AMRITA

180+ International Collaborations

- Dual-Degree programs
- Opportunity to pursue PhD abroad
- Integrated PhD Programs
- Work on Funded Research Projects

₹50,000 Scholarship P.A. at the end of every semester

₹22.5 Lakh P.A. Highest CTC

₹1.15 Lakh P.M. Highest Internship

₹8.25 Lakh P.A. Average CTC

## AMRITA ARTIFICIAL INTELLIGENCE ALUMNI

**Indhupriya**  
Dell

**Akhil U**  
Tata Elxsi

**Ashutosh**  
Robert Bosch

**Ansil**  
Pine Labs

amrita.edu/mtech 044 4813 5535

### SELECTION/ ADMISSION PROCESS

GATE Qualified Candidates: Direct admission with AICTE scholarship of ₹12,400 per month.

Non- GATE Qualified Candidates: Based on the marks scored in the qualifying examination & performance in the interview.



Education for Life. Education for Living.