



RV College of Engineering®

Autonomous Institution Affiliated to Visvesvaraya Technological University, Belagavi

Approved by AICTE, New Delhi,

B.E. In ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

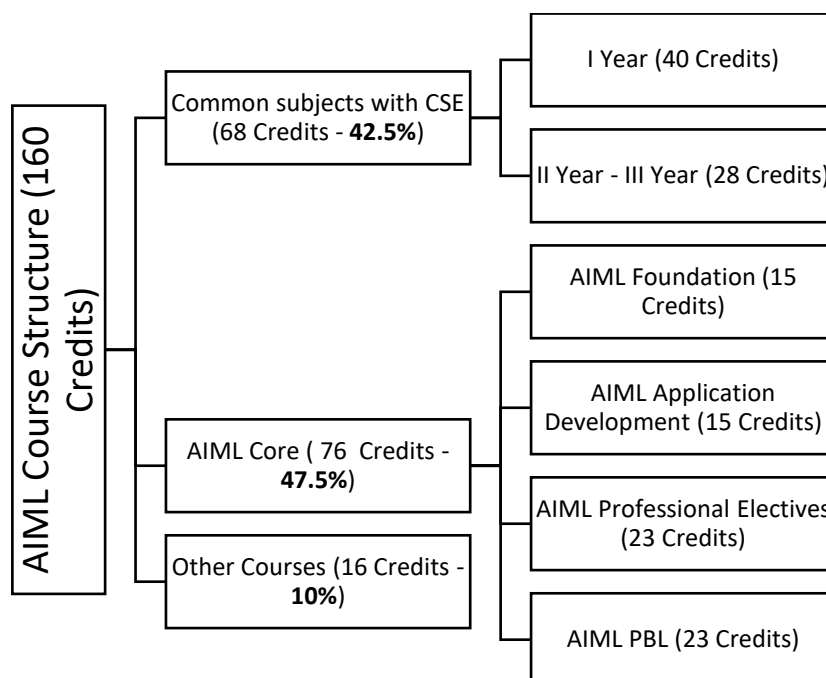
The accelerated industrial transformation is an outcome of the advent of Artificial Intelligence in industries. AI-based engineering solutions empower humans to perform better in complex and critical situations which require judgment and creative thinking. In the coming years, many roles across organizations will need at least some artificial intelligence technologies, creating massive new opportunities for the AI-savvy regardless of discipline. Adopting AI & ML in core sectors such as healthcare, agriculture, education and skilling, governance, energy, automotive, banking and finance, infrastructure, and manufacturing has increased demand for engineers with specialized knowledge and expertise in AI & ML.

Vision of AI & ML Engineering Program at RVCE

To develop sustainable solutions for the greater good of society, through quality engineering education in Artificial Intelligence and Machine Learning, with innovation, research, and consultancy activities.

AI & ML engineering curriculum (Total credits: 160)

The Bachelor of Engineering in Artificial Intelligence and Machine Learning curriculum has been designed to cover all essential Computer Science Engineering courses and impart specialized knowledge to develop AI & ML-based engineering solutions.





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Sl.No.	Item	Description	Credits allocation
1	First Year	Common Syllabus - Computer Science Stream	40
2	Common with Computer Science and Engineering (II & III Year)	<ul style="list-style-type: none"> Programming languages: C, C++, Java, Python, Web Programming, etc. Data structures Database management Operating systems Design and analysis of algorithms Principles of software engineering Computer Networks Embedded Systems Discrete Mathematics 	28
3	Foundation Courses of AI & ML	<ul style="list-style-type: none"> Introduction to AI ML Algorithms Statistics for Data Scientists Mathematics for ML 	15
4	AI & ML Application Development courses	<ul style="list-style-type: none"> Big data Analytics Computer Vision and Image Analysis Natural language Processing - understanding and generation Deep learning frameworks 	15
6	Professional Elective Streams	<ul style="list-style-type: none"> Intelligent Computing: Cognitive computing models, Nature inspired computing models, Quantum Computing models, etc. Advanced learning models: Reinforcement learning models, Edge Intelligence models, Autonomous agents, predictive analytics, Quantum Machine learning, Generative AI, etc. Interdisciplinary Stream: Cyber Security, HCI, Robotics, AR and VR, etc. NPTEL-MOOC courses: Interdisciplinary and Mathematics 	23
7	Project-based learning	<ul style="list-style-type: none"> Design thinking Mini and Major Projects Internships 	23
8	Other Courses	<ul style="list-style-type: none"> Humanity and Social Sciences Ability Enhancement Courses and Liberal Arts Universal Human Values Communicative English and Kannada Environmental Technology and Bioinspired Engineering IPR Fundamentals of Management & Economics 	16