

# Center of Excellence in **Artificial Intelligence and Innovation**



Vidya Pratishthan's  
Kamalnayan Bajaj Institute of Engineering &  
Technology (VPKBIET)

**Certification and Post-graduate Diploma Courses, Consultancy &  
Sponsored Research in Data Science and AI domain**

## **VPKBIET's Center of Excellence in AI & Innovation (VP-AII):**

VPKBIET has student-centered institutional development as a motto, committed to pursue academic excellence to develop a student with comprehensive technical knowledge and integrated personality. They prepare students to think globally, act locally, involve individually and systemize institutionally to meet emerging industrial and social needs. The Institute is consistently ranked among the top 5 colleges of the Savitribai Phule Pune University. The excellent infrastructure, clean and empowering environment breeding culture of innovation, well-equipped modern laboratories and dedicated faculty and staff have contributed to the success of the institute.

### **Importance of AI Skills**

- 1) Data Engineering & Machine Learning are the "most needed" skill sets of this decade, according to World Economic Forum "Future of Jobs 2020" report
- 2) AI will add 37 lakh crores to Indian economy by 2025, NASSCOM 2020 report
- 3) India will need more than 10 Lakh data scientists by 2030

The world is rapidly changing with AI touted as "The next Industrial Revolution". The Vidya Pratisthan's Centre of Excellence in Artificial Intelligence and Innovation (VP-AII) is a unique set up for bringing together a world class, high impact, reputed excellence in Artificial Intelligence, industry 4.0 technology, and governments to radically transform skill development, entrepreneurship and high-growth economy riding and fostering innovation in AI Domain.

VP-AII can help to train developers, data scientists, and researchers to use deep learning and accelerated computing to solve real-world problems across a wide range of domains.

Through cooperation with partners from the business sector, the VP-AII Centre shall offer a wide range of opportunities for teaching, research, and intensive knowledge transfer to industry and society.

### **Bridging the gaps @ VP-AII Lab:**

AI is the emerging technology of the century, with impact potential across all sectors like: Agriculture, Education, Government, Healthcare, Consumer Internet, Finance, Manufacturing etc.

According to World Economic Forum, Data scientists are number 1 job of the year 2022, & India would need several lakhs of data scientists by year 2025.

No educational institute has shown vision to reach scale of 1 Lakh students.

Despite huge potential Maharashtra is far behind to many states.

For exponential progress (entrepreneurship, employment, opportunities etc.) creating conducive environment based on emerging technologies is critical.

A needed step towards attracting businesses and talent to Maharashtra.

Getting Maharashtra/Pune/Baramati more prominently on global map.





## Offerings in Artificial Intelligence and Innovation:

Research:	Creating knowledge, skill sets useful to the society.
Mentoring:	Grooming Learners to be technology ready.
Innovation:	Innovating for Transforming ideas for betterment.
Training:	In depth training Core Data Science & Artificial Intelligence Solutions Big data/ Advance Data Science.
Incubation:	Entrepreneur support for business and social ideas.
Industry Projects:	Experiential learning by participating in solving industry problems.
Consulting:	Offering high-end consulting services to government and private businesses through Centre of Excellence All Labs.

## Value adds by VP-AII:

Offering best of the courses to students – tie ups with best institutes, Professors, and industry, domain experts  
 Offering invaluable fellowship programs to the deserving researchers  
 Offering end-to-end virtual education platform - No physical barriers, convenient, best but cost-effective.  
 Tight integration of teaching and real problem-solving opportunities  
 Deep engagement and commitment of internships with Industry houses/business leaders.  
 Offering opportunity of solving social and business problems.  
 Organizing India's biggest annual conference on AI.

This world class, high impact, reputed Center of Excellence in Artificial Intelligence, & Innovation will:  
 Create 1 lakh AI experts in India in next 3 years (by 2025).  
 Solve real life social and Industry problems using AI.  
 Cater to million jobs.  
 Encourage/produce startups in deep-tech AI space.

## VPKBIET

VPKBIET is running a Center of Excellence in Artificial Intelligence and innovation which includes exclusive Certification and Diploma for Online Courses in the domain of Data Science & AI.

VPKBIET brings with its rich technology legacy, long and proven credentials in Engineering Education, exposure in AI programs, a team to deliver and package training programs.

### Data Science & AI Courses in the Offering:

For each of the levels, all course evaluation at the end of the said level, prior to certification, will be held at VPKBIET, Pune Office in face-to-face mode.

**A-LEVEL: 3 Months Certificate course in Data Engineering & Business Intelligence**

Course A1: Introduction to Database Management Systems (3 Credit Course)

Course A2: Foundations of Statistics and Linear Algebra (3 Credit Course)

Course A3: Data Visualization with Tableau (3 Credit Course)

On completion of A-LEVEL Certification, Learner's "Expected Job Profile" will be:

Junior Data Engineer

(SQL, ETL, AWS Data Engg.), entry level expertise in Cloud architecture

**B-LEVEL: On completion of A-Level, next 3 Months Certificate course in Machine Learning & Artificial Intelligence**

Course B1: Basics of Python programming (3 Credit Course)

Course B2: Machine Learning Fundamentals (3 Credit Course)

Course B3: Deep Learning (3 Credit Course)

On completion of B-LEVEL Certification, Learner's "Expected Job Profile" will be:

Junior Data Scientist

(Python + regression, classification, basic Deep Learning)

**C-LEVEL: On completion of B-Level, 6 Months Certificate course in Advanced AI + internship/project leading to One-year Postgraduate diploma**

Course C1: R Programming (3 Credit Course)

Course C2: Time Series Data Analysis (3 Credit Course)

Course C3: Advanced Machine Learning (3 Credit Course)

Course C4: Natural Language Processing and text Analytics (3 Credit Course)

Course C5: Industry Project (15 Credit Internship)

On completion of C-LEVEL Certification, Learner's "Expected Job Profile" will be:

Business Intelligence Analyst

(Deriving insights from data, python data wrangling, basic classification, clustering),

Proficiency in Excel Building Tableau / PowerBI dashboards, SQL, ETL)

**D-LEVEL: Direct Admission to: One-year full time Postgraduate Diploma Course in Data Science & AI [for graduates only]**

This will be one-year comprehensive diploma course which cover all courses of A-Level, B-Level and C-Level in depth (45 Credits).

On completion of D-LEVEL Certification, Learner's "Expected Job Profile" will be:

AI Data Analyst

Data Scientist

Big Data Engineer

Machine Learning Engineer

Business Intelligence Developer

AI Research Scientist





## DS & AI Course Fees:

There would be an online Application Fee Rs. 500/- (non-refundable).

LEVEL

**A**

3 Months Certificate Course in Data Engineering and Business Intelligence

₹ 40,000/-

LEVEL

**B**

On completion of A-Level, next 3 Months Certificate course in Machine Learning & Artificial Intelligence

₹ 40,000/-

LEVEL

**C**

On completion of B-Level, next 6 Months Certificate course in Advanced AI + internship/project leading to One-year Postgraduate diploma

₹ 1,50,000/-

LEVEL

**D**

Direct Admission to: One-year Postgraduate Diploma Course in Data Science & AI [for graduates only]

₹ 2,10,000/-

*Course Fee all inclusive*

## Who can participate?

- Any graduate in Science, Engineering or Technology discipline, including BBAs/MBAs with specialisation in IT domain.
- Any Diploma holder in Engineering or Technology.
- Working professionals wanting to switch career in the domain of Data Science and AI.
- All our program courses are taught in English. Hence, a minimum proficiency in English language is expected to participate in the program.

## What makes this Data Science and Artificial Intelligence program unique?

- 12-52 weeks certification, diploma program in Data Science and AI domain.
  - Equivalent to a typical 3 credit course as per UGC/AICTE norms
  - Live online lectures and hands-on sessions with personalised learning experience in Synchronous mode:
    - sessions shall be offered on slotted time [say 6.30 pm to 8.30 pm] across a course including weekends and
    - in succession for the advanced levels (B-LEVEL, C-LEVEL) of the subsequent certification courses.
  - Includes independent projects, quizzes, and assignments.
  - Equal focus on foundation and practices
  - Discussions with eminent professionals, some of these will be in Asynchronous mode at the VP-All labs
  - This will include online sessions & time devoted for learning and assignments as well.
  - A holistic approach would be followed where participants would be evaluated continuously. Quizzes, assignments, discussions, and attendance would be used for evaluation of performance.
  - All laboratory sessions would be on cloud-based platforms, which would be carried out on week days/week ends at a convenient time to participants.
  - All participants would get access to the online labs right from the start of the program.
  - It is advisable not to miss the live sessions with the faculty. However, in the event of missing a class, recording of the session would be made available for a limited period.
  - The laboratory contents would be built independently by all participants, as part of attending the course. Recorded sessions of classes are set to expire automatically after a fixed duration.
- Participants are expected to have minimum 75% attendance.







## How to Register for DS & AI Courses at VP-Ali:

- For those who want to attend the course, please register using the link given here (Application Fee Rs. 500). Registration is open for 1000 seats only.
- Candidates must possess reasonable proficiency in English language (+2 level), basic maths (+2 level), and reasoning skills, all of which are deemed essential for this course.

### Important Dates:

Commencement of Registration	<b>1 August 2022</b>
Last date of registration:	<b>16 August 2022</b>
Online Aptitude Examination[VPCAT]: <i>[Industry nominated/sponsored candidates exempted from Aptitude Test]</i>	<b>21 August 2022</b>
Display of Selection List	<b>23 August 2022</b>
Payment of Course Fees:	<b>30 August 2022</b>
Student Induction Program:	<b>1 September 2022</b>
Regular Sessions from:	<b>5 September 2022</b>



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