

# DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

ACADEMIC YEAR 2024-2025

## What is Artificial Intelligence

By enabling machines to learn, think, and solve problems, AI helps businesses automate tasks, improves decision-making, and powers technologies we use every day — from smart assistants to personalized apps. As AI continues to evolve, it opens up new possibilities across industries like healthcare, education, and finance.

## Smarter Decisions

AI helps analyze data fast, revealing patterns and insights that drive better outcomes in business and daily life.

## Efficiency at Scale

AI helps analyze data fast, revealing patterns and insights that drive better outcomes in business and daily life.

AI powers the tools we use daily — from voice assistants to personalized recommendations — making life more convenient.



# FOUNDER'S NOTE



**Late Babu Banarasi Das Ji  
(1912-1985)**

**Freedom Fighter  
Ex-Chief Minister of U.P.**

“TO PROVIDE AN OPEN OPPORTUNITY TO THE  
YOUNG GENERATION FOR EVOLVING THEIR  
CORE COMPETENCIES FOR BUILDING UP THEIR  
CAREER AS WORLD CLASS PROFESSIONALS  
WITH BROAD BASED FOUNDATION, IN-DEPTH  
KNOWLEDGE & VERSATILE PERSONALITY  
TO MEET THE CHALLENGES OF GLOBAL  
ECONOMY.”

# **A TRIBUTE TO Dr. Akhilesh Das Gupta**



## **OUR REVERED & HON'BLE FOUNDER CHAIRMAN SIR**

There is no greater tribute to a guru than to maintain the high standards he lived by; Dr. Akhilesh Das Gupta's legacy is one such that will live on through his eminent students and through the beauty of his charitable work; there was an intensity that he brought to every movement and thought he expressed; An inspiring soul, a versatile genius, a noble teacher whose ideas will live forever with his charm.

# Mrs. Alka Das Gupta



## Hon'ble Chairperson BBD Group

Innovation requires passionate explorers who give proper transformation at the workplace. With an ever-changing global scenario, the key to success is responding to the complex and rapidly changing issues in the world of Artificial Intelligence. The Department of Artificial Intelligence & Machine Learning of ADGIPS is always making efforts to justify these points. We impart an education that is based on consciousness and we rear a breed of young minds that are bustling with self confidence, motivation, and ever-ready to take up challenges. The campus, sports, and academic facilities all bear testimony to this effort. In order to promote an internationally acceptable education, our key focus has been on overall development.

Proficiency in computing technology has become essential for modern-day managers, business leaders, entrepreneurs, and other professionals. It is a welcome development.



# Mr. Viraj Sagar Das



## Hon'ble President BBD Group

I feel so delighted to find that the path of creativity and innovation is consistently followed by the Department of Artificial Intelligence & Machine Learning. It always encourages its students to actively participate and compete in various competitions and events to show their abilities towards the new platforms of technology. A great part of the magazine is the fact that it brings us a bouquet of topics which are of utmost relevance and interest to all.

It is a great pleasure for me to get to know all the activities and achievements of the Department of Artificial Intelligence & Machine Learning of Dr. Akhilesh Das Gupta Institute of Professional Studies in the form of such an interactive read.

# Prof. (Dr.) Sanjay Kumar



## Prof. (Dr.) Sanjay Kumar Director General, ADGIPS

In his book *On Becoming a Leader*, Warren Bennis wrote, “No leader sets out to be a leader. People set out to live their lives, expressing themselves fully. When that expression is of value, they become leaders. So the point is not to become a leader. The point is to become yourself, to use yourself completely – all your skills, gifts and energies – in order to make your vision manifest. You must withhold nothing. You, must, in sum, become the person you started out to be, and to enjoy the process of becoming.” We at Dr. Akhilesh Das Gupta Institute of Professional Studies believe in helping students to manifest their vision completely. How do we do this? We offer a rigorous education program rooted in all forms of practice, coupled with a vast array of electives and opportunities that come from our position of being affiliated to a major university. We give you the tools to continue learning and growing long after you leave our doors; we create opportunities for internships and experiences that broaden your horizons.



# Prof. (Dr.) Niranjan Bhattacharyya



## Director, ADGIPS

Prof(Dr).Niranjan Bhattacharyya is BE, MTech and PhD in Electronics & Communication Engineering and MBA in Finance. He started his professional career in Merchant Navy and worked for large corporations like Godrej as Branch Manager, Tech Pacific Holding as country head and as CEO of 1000 crore

conglomerate in IT solution, Multiplex Corporation Ltd. After serving Industry, he joined academia as a Lecturer in Delhi College of Engineering and served DCE/ DTU for over six years and then in GGSIPU affiliated college as Professor and HOD for 11 years. In ADGIPS he started as Professor and HOD of ECE and Director- IQAC from 2021 and promoted as Director of ADGIPS sinxe 1st January,2024. He has over 100 publications in International journals and authored one book which fetched him an award from Hon'ble President of India.

He is invited to speak at International seminars and conferences in India and abroad, including USA and Canada. Here at ADGIPS, we provide the best undergraduate and post graduate education to the students with full enthusiam.

# Prof. (Dr.) Ankit Verma



## Head of Department, AI & ML, ADGIPS

Once an author very rightly said that "Listen to the people who love you. Believe that they are worth living for even when you don't believe it. The Educational System of ADGIPS is not limited to a defined curriculum only but to develop and cheer all the spheres of people especially students associated with. ADGIPS's Department of Artificial Intelligence & Machine Learning always works in the direction of enhancement of Entrepreneurial abilities among the students and helps them in working on those relevant projects which can act as a landmark for our developing society. Department of Artificial Intelligence & Machine Learning is a cluster of some of the great scientific research fields which when together work upon gives wings to dreams to touch the sky of reality. Department of Artificial Intelligence & Machine Learning always works towards developing engineers with a rich set of technical, managerial, ethical skills so that they can contribute to nation building.



# VISION AND MISSION

To produce socially responsible technocrats, researchers and entrepreneurs in Artificial Intelligence and Machine Learning through eminence in education and research.

M1.

To produce socially responsible technocrats, researchers and entrepreneurs in Artificial Intelligence and Machine Learning through eminence in education and research.

M2.

To collaborate with industry to exhilarate novel research and development in Artificial Intelligence & Machine Learning.

M3.

To transform students into innovative skilled professionals empowered with knowledge, skills, values, and confidence to cater the global needs of the society.

# CONTENT

**01. DEPARTMENT AT A  
GLANCE**

**02. STUDENT'S  
ACHIEVEMENT**

**03. KRITRIM DHI:  
THE OFFICIAL AI&ML  
SOCIETY OF ADGIPS**

**04. EVENTS  
HELD TILL DATE**

**05. AI IN GAMING:  
SMARTER OPPONENETS AND  
INFINITE WORDS BY MIHIKA &  
NANDINI**

**06. EDITORIAL BOARD**



# DEPARTMENT AT A GLANCE

**The Department of Artificial Intelligence and Machine Learning is established in the year 2021, offers an undergraduate programme B. Tech. under the affiliation of GGSIPU, New Delhi.**

**ADGITM, thrives to impart an effective technical education by means of experiential learning and develop concrete infrastructure with efficient faculty and dynamic student community. AI & ML insists on implementing Outcome Based Education (OBE) throughout the tenure of under graduation by means of getting university ranks, higher placement records. To emphasize on lifelong learning and applying knowledge on solving real work problems, department conduct various technical events like hackathons, coding competitions, training programs, workshops and seminars.**

# STUDENT'S ACHIEVEMENT

- Kannan Mehra(2023-2027) secured first position in TARANGINI(Dance Competition) organised by Institute of Home Economics on 16<sup>th</sup> April 2024.
- Kannan Mehra(2023-2027) secured first position in MAITRI(Dance Competition) organised by Institute of Home Economics on 18<sup>th</sup> April 2024.
- Mohan Dev Vashisht (2022-2026) got his Research Paper Presented in Internantional Conference on Artificial Intelligence Machine Learning and Cybersecurity organised by HMRITM on 17<sup>th</sup> May 2024.
- Sumit Thakur(2023-2027) secured first position in ITS Engineering College -Hackathon organised by HackwithDelhi(HackwithIndia)



# STUDENT'S ACHIEVEMENT

- Rubi Negi(2023-2027) secured third position in Astitva 2025 organised by ADGIPS Sports from 17<sup>th</sup> -19<sup>th</sup> February 2025.
- Devyani Dadwal(2023-2027) secured fourth position in Hackathon organised by Hackarena, Ignite Room, Devfolio from 28<sup>th</sup> -29<sup>th</sup> June.
- Gun Mendiratta(2023-2027) secured first position in Hack and Chill 2.0 organised by GDGC ADGIPS on 22nd March 2025.

# STUDENT'S AWARDS



MS.ANCHAL GUPTA,  
“STUDENT OF THE YEAR  
AWARD”





# KRITRIM DHI THE OFFICIAL AI&ML SOCIETY OF ADGIPS



Faculty Incharge :-  
Dr. Neha Yadav

Krishna Tripathi  
Chaitanya Sharma  
Ojasvi Bhatnagar  
Aryan Kumar  
Drishti Rauthan  
Gargi Gupta

Nishita Aggarwal  
Hari Varshney  
Vani Gupta  
Shaurya Patap Singh  
Divy Pant



# EVENTS HELD TILL DATE



**DR. AKHILESH DAS GUPTA**  
**INSTITUTE OF PROFESSIONAL STUDIES**  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shahdara, Delhi 110053



DEPARTMENT OF  
**ARTIFICIAL INTELLIGENCE & MACHINE LEARNING**  
AND  
DEPARTMENT OF COMPUTER SCIENCE & TECHNOLOGY

Organizes

**INDUSTRIAL VISIT**  
**AICTE IDEA LAB**





**5th November 2024**  
**Tuesday**



**DCRUST, Murthal**  
**Sonipat, Haryana**

*#ShapingGenerations*



**DR. AKHILESH DAS GUPTA**  
**INSTITUTE OF PROFESSIONAL STUDIES**  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Delhi - 110 053  
**Approved by AICTE & BCI and Affiliated to GGSIPU**  
www.adgips.ac.in || +91 11 49905900-99



DEPARTMENT OF  
**ARTIFICIAL INTELLIGENCE & MACHINE LEARNING**  
AND  
DEPARTMENT OF  
**COMPUTER SCIENCE & TECHNOLOGY**

are organizing the industrial visit to

**COUNCIL OF SCIENTIFIC AND INDUSTRIAL  
RESEARCH**




**Date - October 1, 2024**  
**Time - 9 A.M.**




Explore the Future of  
Science: Discover, Learn,  
and Innovate at CSIR-  
National Physical  
Laboratory

*#ShapingGenerations*



**ADGIPS**  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Delhi - 110 053  
**Approved by AICTE & BCI and Affiliated to GGSIPU**  
www.adgips.ac.in || +91 11 49905900-99




DEPARTMENT OF  
**ARTIFICIAL INTELLIGENCE & MACHINE LEARNING**

organises


**DIGITAL POSTER DESIGN**

on theme


**"FUTURE OF AI"**



**24 September 2024, Tuesday**



**1:20 pm Onwards**



**Lab 2203, 2nd Floor, Block 2**

*#ShapingGenerations*



**DR. AKHILESH DAS GUPTA**  
**INSTITUTE OF PROFESSIONAL STUDIES**  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Delhi - 110 053  
**Approved by AICTE & BCI and Affiliated to GGSIPU**  
www.adgitmdelhi.ac.in || +91 11 49905900-99



**Department of Artificial Intelligence & Machine Learning**

in association with

**National Institute of Technical Teachers Training & Research**



राष्ट्रीय तकनीकी शिक्षक प्रशिक्षण एवं अनुसंधान संस्थान (एनआईटीटीटीआर), चंडीगढ़  
(शिक्षा मंत्रालय, भारत सरकार)  
**National Institute of Technical Teachers Training and Research, Chandigarh**  
(Ministry of Education, Government of India)

organizes

**ONE WEEK**  
**FACULTY DEVELOPMENT PROGRAM**

(at the remote centre, ADGIPS)

on

**OpenCV for Image and Video Processing Applications**

**22<sup>nd</sup>- 26<sup>th</sup> July, 2024**

**Convenor:**  
**Prof. (Dr.) Ankit Verma**

**Local Coordinator:**  
**Prof. (Dr.) Suman Bhatia**  
**Contact No: 9818566077**

**FOR QUERY**

**REGISTER NOW**



*#ShapingGenerations*

<https://fdp.nitttrchd.ac.in/backupup/>



# EVENTS HELD TELL DATE

**DR. AKHILESH DAS GUPTA**  
**INSTITUTE OF PROFESSIONAL STUDIES**  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shahdara, Delhi 110053  
Approved by AICTE & BCI and Affiliated to GGSIPU  
www.adgips.ac.in | +91 011 49905900-99

**DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

MECHAMINDS

**ROBOTech  
WORKSHOP**

Stop Watching Sci-Fi - Start Creating It!  
Your adventure into robotics begins here!

**Details for joining Workshop:**

**Date:** 06-09-2024 (Friday)  
**Time:** 1:20 PM  
**Venue:** AIML Smart Room (2202)

Speaker: Pradipta Shanu  
(Student, AIML Department)

Scan the QR code to  
register for workshop

#ShapingGenerations

Hurry, before the robots do!

**DR. AKHILESH DAS GUPTA**  
**INSTITUTE OF PROFESSIONAL STUDIES**  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Delhi - 110 053  
Approved by AICTE & BCI and Affiliated to GGSIPU  
www.adgitmdelhi.ac.in || +91 11 49905900-99

**Department of Artificial Intelligence & Machine Learning**  
in association with  
**National Institute of Technical Teachers Training & Research**

राष्ट्रीय तकनीकी शिक्षक प्रशिक्षण एवं अनुसंधान संस्थान (एनआईटीटीटीआर), चंडीगढ़  
(शिक्षा विभाग, भारत सरकार)  
National Institute of Technical Teachers Training and Research, Chandigarh  
(Ministry of Education, Government of India)

organizes  
**ONE WEEK  
FACULTY DEVELOPMENT PROGRAM**  
(at the remote centre, ADGIPS)  
on  
**OpenCV for Image and Video Processing Applications**  
**22<sup>nd</sup> - 26<sup>th</sup> July, 2024**

**Convenor:**  
**Prof. (Dr.) Ankit Verma**

**Local Coordinator:**  
**Prof. (Dr.) Suman Bhatia**  
**Contact No: 9818566077**

FOR QUERY

REGISTER NOW

#ShapingGenerations

<https://fdp.nitttrchd.ac.in/backingup/>

**DR. AKHILESH DAS GUPTA**  
**INSTITUTE OF PROFESSIONAL STUDIES**  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shahdara, Delhi 110053  
Approved by AICTE & BCI and Affiliated to GGSIPU  
www.adgips.ac.in | +91 011 49905900-99

**DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

**ARDUINO  
WORKSHOP**

**DATE:** 19-9-24  
**TIME:** 1:20 pm  
**VENUE:** Smartroom (2202)  
**SPEAKER:** Pradipta Shanu  
(Student, AIML)

**Topics:**  
Basic ARDUINO setup and  
programming  
Using sensors and actuators  
to create interactive projects

#ShapingGenerations

**DR. AKHILESH DAS GUPTA**  
**INSTITUTE OF PROFESSIONAL STUDIES**  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shahdara, Delhi 110053  
Approved by AICTE & BCI and Affiliated to GGSIPU  
www.adgips.ac.in | +91 011 49905900-99

**DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING**

*Congratulates*

**MR. RITESH KHARWAR, AIML**  
*for*  
**"THE BEST LAB TECHNICIAN AWARD"**

**TEACHER'S DAY  
celebration  
SEPTEMBER 5, 2024**

#ShapingGenerations



# EVENTS HELD TILL DATE



DR. AKHILESH DAS GUPTA  
INSTITUTE OF PROFESSIONAL STUDIES  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shahdara, Delhi 110053  
Approved by AICTE & BCI and Affiliated to GGSIPU  
www.adgips.ac.in +91 011 49905900-99



DEPARTMENT OF  
ARTIFICIAL INTELLIGENCE & MACHINE LEARNING



presents

# PROMPT NEXUS

SPONSORED BY



20 FEB 2025

Win Prompt Nexus and claim your CASH PRIZE & very own **.xyz** DOMAIN(worth 10\$)!

Register here





DR. AKHILESH DAS GUPTA  
INSTITUTE OF PROFESSIONAL STUDIES  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shahdara, Delhi 110053



DEPARTMENT OF  
ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

in association with

NATIONAL INSTITUTE OF TECHNICAL TEACHERS  
TRAINING & RESEARCH



राष्ट्रीय तकनीकी शिक्षक प्रशिक्षण एवं अनुसंधान संस्थान (एनआईटीटीटीआर), चंडीगढ़  
(शिक्षा विभाग, भारत सरकार)  
National Institute of Technical Teachers Training and Research, Chandigarh  
(Ministry of Education, Government of India)

organizes

ONE WEEK

FACULTY DEVELOPMENT PROGRAM

(at the remote centre ADGIPS, New Delhi)

on

ICT Tools for Smart Educators

27<sup>th</sup> - 31<sup>st</sup> January, 2025

CONVENOR:  
PROF. (DR) ANKIT VERMA

LOCAL COORDINATOR  
PROF. (DR) SUMAN BHATIA  
CONTACT NO: 9818566077

FOR QUERY

REGISTER NOW



#ShapingGenerations

https://fdp.nitttrchd.ac.in/backup/



DR. AKHILESH DAS GUPTA INSTITUTE OF  
PROFESSIONAL STUDIES  
FC-26, Shastri Park, Delhi-110053  
APPROVED BY AICTE, BCI AND AFFILIATED TO GGSIPU



DEPARTMENT OF ARTIFICIAL INTELLIGENCE  
AND MACHINE LEARNING

PRESENTS

SEMINAR 1

INSIGHTFUL TALKS, IMPACTFUL IDEAS-  
LETS PRESENT AND PROGRESS

19 FEB 2025

11 AM - 12 PM

RNO. 2202

Join Seminar 1  
and claim your  
own **.xyz** DOMAIN  
(worth 10\$)!



SCAN FOR  
REGISTER





DR. AKHILESH DAS GUPTA  
INSTITUTE OF PROFESSIONAL STUDIES  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shahdara, Delhi 110053



DEPARTMENT OF  
ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

organising

INDUSTRIAL VISIT  
NETWORK BULLS



13th February, 2025  
Tuesday




Network Bulls,  
Gurgaon, Haryana




#ShapingGenerations



# EVENTS HELD TILL DATE







**DR. AKHILESH DAS GUPTA**  
INSTITUTE OF PROFESSIONAL STUDIES  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shahdara, Delhi 110053  
Approved by AICTE & BCI and Affiliated to GGSIPU  
www.adgips.ac.in +91 011 49905900-99




**BBD GROUP**

**DEPARTMENT OF**  
**ARTIFICIAL INTELLIGENCE & MACHINE LEARNING**

  
*presents* **EXPERT LECTURE ON DATA SCIENCE ANALYSIS**

 **MARCH 20, 2025**  
 **12:00 PM ONWARDS**  
 **SMART ROOM 2409**

**PROF. (DR.) VISHAL BHATNAGAR**  
**HOD (CSE)**  
**NETAJI SUBHAS UNIVERSITY OF TECHNOLOGY (NSUT, EAST CAMPUS)**



**#ShapingGenerations**



**DR. AKHILESH DAS GUPTA**  
INSTITUTE OF PROFESSIONAL STUDIES  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shahdara, Delhi 110053  
Approved by AICTE & BCI and Affiliated to GGSIPU  
www.adgips.ac.in +91 011 49905900-99



**BBD GROUP**

**Department of**  
**Artificial Intelligence & Machine Learning**

  
*Presents* **SEMINAR ON CAREER GUIDANCE**

Your GATEway to Success Starts Here – Join the PW Speaker Session!


 **ADGIPS AUDITORIUM**  
 **Tuesday, 15<sup>th</sup> April**  
Start at 11:30 onwards

  
**QUALIFICATIONS**  
M.TECH - IIT DELHI  
GATE AIR 29  
ISRO SCIENTIST QUALIFIED  
6 YEAR + TEACHING EXPERIENCE




**KULDEEP SINGH RATHORE**

**JOIN US** [@kritrim.dhi](https://www.adgips.ac.in) **#ShapingGenerations**



**DR. AKHILESH DAS GUPTA**  
INSTITUTE OF PROFESSIONAL STUDIES  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shahdara, Delhi 110053  
Approved by AICTE & BCI and Affiliated to GGSIPU  
www.adgips.ac.in +91 011 49905900-99



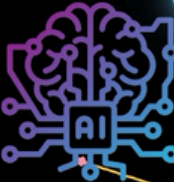
**BBD**

**DEPARTMENT OF**  
**ARTIFICIAL INTELLIGENCE & MACHINE LEARNING**

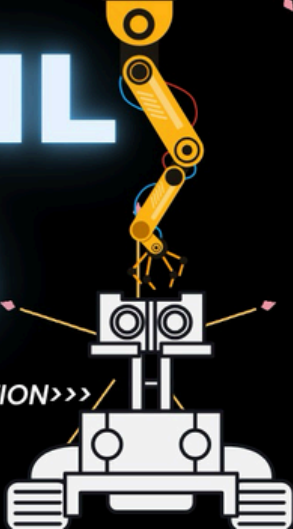
**MECHAMANIA**

**ROBOTICS CHAMPIONSHIP**

**3<sup>RD</sup> APRIL 2025**

  
**<<< REGISTER FOR THE COMPETITION >>>**

**PRADIPTA SHANU**  
9910008369





**DR. AKHILESH DAS GUPTA**  
INSTITUTE OF PROFESSIONAL STUDIES  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shahdara, Delhi 110053  
Approved by AICTE & BCI and Affiliated to GGSIPU  
www.adgips.ac.in +91 011 49905900-99



**BBD**

  
  
  
  
**Dr. Akhilesh Das Gupta Institute of Professional Studies**  
IEEE Student Branch

**CANVAS REVERIE**  
**RELIVE IMAGINATION**

A canva design competition by IEEE ADGIPS WiE in collaboration with DATAZOIC & KRITRIM DHI

**17 APR 2025** | **ROOM 2205, 2208 & 2211**  
Starts at 1 PM

Curate • Compose • Captivate

**DETAILS**

- Registration fee: ₹10
- Topic to be revealed in the spot
- Cash prize for the winner

  
**JOIN NOW**

**#SHAPINGGENERATIONS**



# EVENTS HELD TILL DATE



DR. AKHILESH DAS GUPTA  
INSTITUTE OF PROFESSIONAL STUDIES  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shalimar, Delhi 110053  
Approved by AICTE & BCI and Affiliated to GGSIPU  
www.adgips.ac.in +91 011 49905900-99



BBD GROUP

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND  
MACHINE LEARNING







PRESENTS

## SEMINAR 2

 19 Feb 2025  
 12:30 - 1:30 pm  
 RNo. 2202

REGISTER HERE



Join Seminar 2  
and claim your  
own **.xyz** DOMAIN  
(worth 10\$)! 🚀



INSTITUTE OF PROFESSIONAL STUDIES  
(Formerly Dr. Akhilesh Das Gupta Institute of Technology & Management)  
FC-26, Shastri Park, Shalimar, Delhi 110053  
Approved by AICTE & BCI and Affiliated to GGSIPU  
www.adgips.ac.in +91 011 49905900-99



BBD GROUP

DEPARTMENT OF ARTIFICIAL INTELLIGENCE  
AND MACHINE LEARNING





PRESENTS



## PROJECT EXHIBITION

Win Technical Jam  
and claim your  
CASH PRIZE & very  
own **.xyz** DOMAIN  
(worth 10\$)! 🚀

REGISTER HERE



 21 FEB 2025



DEPARTMENT OF  
ARTIFICIAL INTELLIGENCE & MACHINE LEARNING



Presents



## TECHNICAL JAM

TECH MEETS CHALLENGE  
LET'S JAM!

Win Technical Jam  
and claim your  
CASH PRIZE & very  
own **.xyz** DOMAIN  
(worth 10\$)! 🚀

REGISTER HERE



 19 FEB 2025



DR. AKHILESH DAS GUPTA INSTITUTE OF  
PROFESSIONAL STUDIES  
FC-26, Shastri Park, Delhi-110053  
APPROVED BY AICTE, BCI AND AFFILIATED TO GGSIPU



BBD GROUP

DEPARTMENT OF ARTIFICIAL INTELLIGENCE  
AND MACHINE LEARNING

PRESENTS

## SEMINAR 1

INSIGHTFUL TALKS, IMPACTFUL IDEAS-  
LET'S PRESENT AND PROGRESS



 19 FEB 2025  
 11 AM - 12 PM  
 RNO. 2202

Join Seminar 1  
and claim your  
own **.xyz** DOMAIN  
(worth 10\$)! 🚀

SCAN FOR  
REGISTER







# TOPIC IN HIGHLIGHTS

## AI in Gaming: Smarter Opponents & Infinite Words

~BY:-

MIHIKA GOEL  
NANDINI SINGH

The gaming landscape has undergone a remarkable transformation over the past few decades, evolving from pixelated graphics and simplistic scripts to immersive experiences characterized by cinematic visuals and intelligent gameplay. At the core of this evolution is Artificial Intelligence (AI), a technology that is fundamentally reshaping how games are played, experienced, and remembered. In the past, game opponents were merely scripted bots that followed predictable patterns, leading to a quick loss of challenge once players memorized their behaviors. However, modern games leverage sophisticated AI techniques, such as decision trees, state machines, and machine learning algorithms, to create dynamic and lifelike enemy behavior. These AI opponents can analyze player strategies, learn from past interactions, and adapt in real time, enhancing the overall gaming experience. Take stealth-based games like Metal Gear Solid or Assassin's Creed, where enemies no longer patrol mindlessly.

Instead, they respond to noise, alert others, search hiding spots, and coordinate efforts to corner players. In action games like Call of Duty and Battlefield, AI enemies take cover, throw grenades, and retreat when sensing danger, ensuring that every combat scenario feels fresh and engaging.

In strategy games like StarCraft II, deep reinforcement learning is employed, with AI agents trained over millions of simulated games. Notably, Google's DeepMind developed AlphaStar, an AI that defeated professional StarCraft players with remarkable efficiency. Similarly, OpenAI's bots in Dota 2 showcased the immense learning capabilities of modern AI systems by defeating human teams. As AI continues to advance, opponents are not just reactive; they anticipate player moves, forcing players to evolve their strategies and creating an endlessly challenging experience.

Another area where AI excels is in world-building. Manually creating expansive and detailed game environments is both time-consuming and costly. Procedural generation, powered by AI, automatically creates vast landscapes, cities, dungeons, and even entire universes. A classic example is Minecraft, where the AI-driven engine generates infinite terrains—caves, oceans, forests, and mountains—each time a new game is started, ensuring that every player's world is unique. Similarly, No Man's Sky amazed players by generating over 18 quintillion explorable planets, each with distinct flora, fauna, climate, and topography, largely through algorithms. AI is also revolutionizing narrative design, character development, and quest generation. Games like Middle-earth: Shadow of Mordor introduced the Nemesis system, where enemy characters remember past encounters with players, hold grudges, and grow stronger over time. This emergent storytelling blurs the line between scripted experiences and organic gameplay. With generative AI models, developers can create unique dialogue, mission structures, and histories for non-playable characters (NPCs), offering players personalized and immersive stories with each playthrough. The integration of AI in gaming is still evolving, with future advancements promising emotionally intelligent NPCs that respond to player tone and behavior, game worlds that adapt in real-time based on player choices, and AI companions that grow alongside players like real friends. Additionally, generative AI tools are empowering indie studios to create AAA-level games with fewer resources, democratizing game development and leading to a surge of innovative titles. AI is not just a technical advancement; it is the catalyst for the next generation of gaming. By enabling smarter opponents and creating infinite worlds, AI enhances immersion, challenge, and replayability. As we look to the future, it is clear that the fusion of AI and gaming is just beginning, promising experiences that will not only be played but truly lived.



# EDITORIAL BOARD



**Chief Editor: Ms. Ankita Gupta**

Danish Khan  
Devansh Sharma  
Harshit Singh  
Kumkum Jain  
Kunal Khandelwal

Mihika Goel  
Nandini Singh  
Nitin Mishra  
Rubi Negi  
Shruti Shrivastava





# DR. AKHILESH DAS GUPTA INSTITUTE OF PROFESSIONAL STUDIES