



**DR. AKHILESH DAS GUPTA**  
**INSTITUTE OF TECHNOLOGY & MANAGEMENT**

# PIXION

I.T. MAGAZINE

2022

SESSION : JUL 22 TO DEC 22

[adgitmdelhi.ac.in](http://adgitmdelhi.ac.in)



“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.”

**Late Babu Banarasi Das Ji**

**(1912-1985)**

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



A TRIBUTE TO OUR  
REVERED & HON'BLE FOUNDER  
CHAIRPERSON SIR

Dr. AKHILESH DAS GUPTA



## रेकः सूचकैव वाचको दर्शक तथा ।

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.

॥ श को बोधकैव षडेते गुरवः मृताः ॥





**MRS. ALKA DAS GUPTA**  
Hon'ble Chairperson BBD Group

Innovation requires passionate explorers who propel transformation at the workplace. With an everchanging global scenario, the key to success is responding to the complex and rapidly changing issues in the world of information technology. The Department of Information Technology of ADGITM 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. I look forward to PIXION 2022 setting a higher pedestal. I wish to PIXION editorial team a grand success .



**SHRI 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 Information Technology. 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 Information Technology of Dr. Akhilesh Das Gupta Institute of Technology & Management in the form of such an interactive read.

I convey my best wishes for the success of PIXION 2022.



**SHRI S. N. GARG**

CEO, ADGITM

Through the guidance of trained and inspired leaders, the students are taken across the gap of their present knowledge and experience and place data level of knowledge and competence that enables them to immediately step into the high standard of efficiency required in today's world of development.

We aim to cultivate talents by closely nurturing them throughout the whole programme. We are unique in terms of our programs, academic structure and core values. Our students are our assets. We develop our students to open them up in front of global scholarly endeavour. While the whole world is running after chances, it is essential to create your own opportunity.



**PROF. (DR.) SANJAY KUMAR**  
DIRECTOR, ADGITM

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 Technology & Management 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. I take this opportunity to express the fact that every effort is made to improve the existing best services to bring out the best for the welfare of our institution and the growth of our students.





**MRS. CHARUL**  
HEAD OF DEPARTMENT

Welcome to have a view of the achievements and activities of the Department of Information Technology with the help of this semester's publication of PIXION. We are proud of our strong academic programs, which are based on theoretical and practical knowledge and match well with the requirements and demands of the industry. We have been working in the field of HCI (Human-Computer Interaction) which is an emerging technology. HCI researchers observe the ways humans interact with computers, and they design technologies that let humans interact with computers in novel ways.

We are committed to students by offering short term courses and pre- placement training classes that foster critical and analytical thinking and build the necessary skills to succeed in the industry. I am sure in times to come, many students from our department will make indelible mark nationally and internationally in the field of Information Technology and make us proud. The hard-working students, a young and dynamic faculty, whose expertise spans the range of disciplines in the computer science stream and a very healthy work-culture, are the basic elements that comprise the Department of Information Technology.



# ADGITM



## VISION

To produce globally competent and socially responsible technocrats and entrepreneurs who can develop innovative solutions to meet the challenges of 21st century.

## MISSION

- To provide value-based education through multi grade teaching methodologies and modern education facilities.
- To sustain an active partnership program with industry and other academic institutes with an aim to promote knowledge and resource sharing.
- To conduct value-added training programme to enhance employability.

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# DEPARTMENT OF INFORMATION TECHNOLOGY



## VISION

" To produce successful IT graduates with a strong technical background and managerial skills for promoting growth in industry and society. "

## MISSION

M1: To provide managerial and professional skills among the students through value added programs.

M2: To provide an atmosphere where faculty and students can be engaged in continuous learning and contribute in the overall growth of the society.

M3: To provide industry oriented technical environment to help students excel in diversified fields.



# DEPARTMENT AT A GLANCE



Department of Information Technology was established in the year 2003 with the motto of providing strong technical background to the students. The Department offers a regular four-year B. Tech. program and the program is intended to create theoretical and practical awareness among the students to strengthen their knowledge. It aims to bring down linguistic and cultural boundaries by implementing information systems by focusing on outcome based education. It has well defined labs and provides internet connectivity to various departments through its servers, radio links, and switches.

The department has distinguished faculty profile with educational background from reputed/premier institutes. In constant pursuit to excellence, the faculty members of the department have been involved in research work and constantly publishing papers in SCI, Scopus and other reputed journals.



# STUDENT SECTION



# Placements

<b>COMPANY NAME</b>	<b>NO. OF STUDENTS PLACED</b>
<b>Wipro</b>	<b>58</b>
<b>Infosys</b>	<b>58</b>
<b>TCS</b>	<b>29</b>
<b>Dxc Technology</b>	<b>34</b>
<b>Newgen</b>	<b>12</b>
<b>Sopra</b>	<b>04</b>
<b>Amazon</b>	<b>06</b>
<b>MAQ</b>	<b>05</b>
<b>Capegmini</b>	<b>04</b>
<b>Sugal and Damani</b>	<b>04</b>

# Top Placements

## amazon

Anubhav Sharma	32 LPA
Gaurav Kumar	18.14 LPA
Bhanu Gakhar	15.88 LPA
Ansh Varshney	13.83 LPA
Yashika Dhall	13.83 LPA
Ankit	13.83 LPA

## Walmart

Surya Bansal 23.40 LPA



Sarthak 15.00 LPA

## Grab

Priyank Rastogi 23.22 LPA

Ujjwal Dwivedi 23.22 LPA

## tavisca

A cxLoyalty Technology Platform

Harshit Jain 13.00 LPA





# TECHNICAL ARTICLES



# NEXT-GENERATION VIRTUAL REALITY AND AUGMENTED REALITY TECHNOLOGIES

– VEER YADAV  
BATCH 2021-2025

Virtual Reality (VR) and Augmented Reality (AR) technologies have seen remarkable growth in recent years, and their application is increasingly becoming pervasive. This is due to the development of new, Next-Generation VR and AR technologies that are capable of providing a more immersive and realistic experience than ever before. In this article, we will explore the latest advancements in VR and AR technologies, their benefits, and their applications.

Next-generation VR technologies are designed to deliver a more realistic and immersive experience to users. These technologies rely on advanced hardware and software systems that provide users with a more natural and responsive experience. Some of the key features of next-generation VR technologies include:

**Higher Resolution Displays:** Next-generation VR technologies use higher resolution displays that offer a clearer and sharper image. This enhances the visual experience and reduces the likelihood of visual fatigue.

**Better Tracking:** Next-generation VR technologies use advanced tracking systems that allow for more accurate and precise tracking of user movements. This allows for a more natural and realistic experience.

**Improved Audio:** Next-generation VR technologies use advanced audio systems that offer a more realistic and immersive audio experience. This includes better spatial audio, which can help to create a more immersive experience.

**Haptic Feedback:** Next-generation VR technologies use haptic feedback systems that provide users with a more realistic tactile experience. This can help to create a more immersive and realistic experience.

Next-generation AR technologies are designed to provide a more seamless and natural experience for users. These technologies rely on advanced hardware and software systems that offer improved tracking, more accurate positioning, and a more realistic visual experience. Some of the key features of next-generation AR technologies include:

**Improved Tracking:** Next-generation AR technologies use advanced tracking systems that allow for more accurate and precise tracking of user movements. This helps to create a more seamless and natural experience.

**Better Positioning:** Next-generation AR technologies use improved positioning systems that allow for more accurate placement of virtual objects in the real world. This enhances the realism and immersion of the experience.

**More Realistic Visuals:** Next-generation AR technologies use advanced display systems that offer a more realistic visual experience. This includes improved color accuracy, contrast, and brightness.

Improved Interaction: Next-generation AR technologies use advanced interaction systems that allow users to interact with virtual objects more naturally. This includes improved hand-tracking and gesture recognition.

### Applications of Next-Generation VR and AR Technologies:

**Gaming:** Next-generation VR and AR technologies are being used in the gaming industry to create more immersive and realistic gaming experiences.

**Education:** Next-generation VR and AR technologies are being used in education to create more engaging and interactive learning experiences.

**Healthcare:** Next-generation VR and AR technologies are being used in healthcare to create more realistic simulations for training medical professionals and to provide therapy for patients.

**Manufacturing:** Next-generation VR and AR technologies are being used in manufacturing to create more efficient and effective training programs for employees.

### Conclusion:

Next-generation VR and AR technologies offer a more realistic and immersive experience for users. These technologies rely on advanced hardware and software systems that provide a more natural and responsive experience. The applications of these technologies are numerous and varied, ranging from gaming to healthcare. As these technologies continue to develop, we can expect to see even more exciting applications in the future.

# **BLOCKCHAIN: A GAME-CHANGER FOR BUSINESS AND BEYOND**

– **RIDDHIMA GARG**  
BATCH 2021-2025

**Blockchain technology is one of the most innovative and transformative technologies of our time. Initially created for Bitcoin, it is now being used in various industries and sectors, including finance, supply chain, healthcare, and real estate, to name a few. Blockchain has the potential to revolutionize the way we do business and interact with each other.**

## **What is Blockchain?**

**Blockchain is a digital ledger that records transactions on a decentralized network. It is a continuously growing list of records, called blocks, that are linked and secured using cryptography. Each block contains a cryptographic hash of the previous block, timestamp, and transaction data. Once a block is added to the chain, it cannot be altered or deleted. This ensures the integrity and immutability of the data stored on the blockchain.**

## **Blockchain as a Game-Changer for Business**

**The decentralized and secure nature of blockchain technology has the potential to transform the way businesses operate. Here are some ways in which blockchain can be a game-changer for business:**

- **Improved Transparency and Accountability:** Blockchain provides a transparent and auditable record of transactions, which enhances trust and accountability in business operations. All participants in the network have access to the same information, reducing the likelihood of fraud and corruption.
- **Increased Efficiency and Cost Savings:** Blockchain eliminates the need for intermediaries, such as banks, lawyers, and other third parties, which can lead to significant cost savings and increased efficiency. Transactions can be processed faster and at a lower cost, reducing the time and resources required for settlements.
- **Enhanced Security and Privacy:** Blockchain uses advanced cryptography to secure transactions, making it virtually impossible to hack or manipulate the data. It also provides users with greater control over their personal information, as they can choose what information to share and with whom.
- **Improved Supply Chain Management:** Blockchain can be used to track and trace products throughout the supply chain, providing greater visibility and accountability. This can help to reduce counterfeiting, improve quality control, and ensure ethical and sustainable sourcing practices.

**Beyond Business: Blockchain and Social Impact**

**Blockchain has the potential to go beyond business and make a positive impact on society.**

**Here are some ways in which blockchain can be used for social impact:**

- **Financial Inclusion :** Blockchain can help to increase financial inclusion by providing access to financial services to the unbanked and underbanked populations. By using blockchain-based platforms, individuals and small businesses can access loans, insurance, and other financial services without the need for intermediaries.
- **Humanitarian Aid and Disaster Relief :** Blockchain can be used to provide secure and transparent distribution of aid and resources during humanitarian crises and natural disasters. It can help to reduce fraud, corruption, and waste, and ensure that aid reaches the intended recipients.

## **Conclusion**

**Blockchain technology has the potential to revolutionize the way we do business and interact with each other. Its decentralized and secure nature provides greater transparency, accountability, and efficiency, while its potential for social impact makes it a powerful tool for positive change. As blockchain technology continues to evolve and mature, it will likely play an increasingly important role in shaping the future of our society.**

# STUDENTS ACHIEVEMENTS





**Devangi Bedi  
(2nd Year)  
secured  
Honourable  
Mention  
organised by  
Prastav Society,  
Hansraj College**

**Muskaan  
Mishra  
(3rd Year)  
secured 1st  
position in Quiz  
on Microsoft  
Azure DevOps Day  
07 on 3rd year  
2022 at Microsoft,  
Gurugram**

**Deepak Kumar  
(2nd Year)  
secured 2nd  
position in  
Athletics event  
organised by NCC  
unit Safdarjung**

**Archi Aggarwal  
(4th Year)  
secured 2nd  
position in  
Interface'22 for  
Application  
Development**

**Devesh Sharma  
(2nd Year)  
secured Honourable  
Mention in Debate  
competition organised by  
Prastav Society, Hansraj  
College**

**Abhishek Singh  
Tomar  
(4th Year)  
secured 2nd position  
in Cricket Match  
organized by ADGITM**

**Rajib Mondal  
(2nd Year)  
secured 3rd position  
in hackathon by  
Tally CodeBrewers  
2022**



**EVENTS**

# TECHNICAL SLOGAN WRITING COMPETITION

THEME: ARTIFICIAL INTELLIGENCE



**ANSH GUPTA  
BASHI GUPTA**



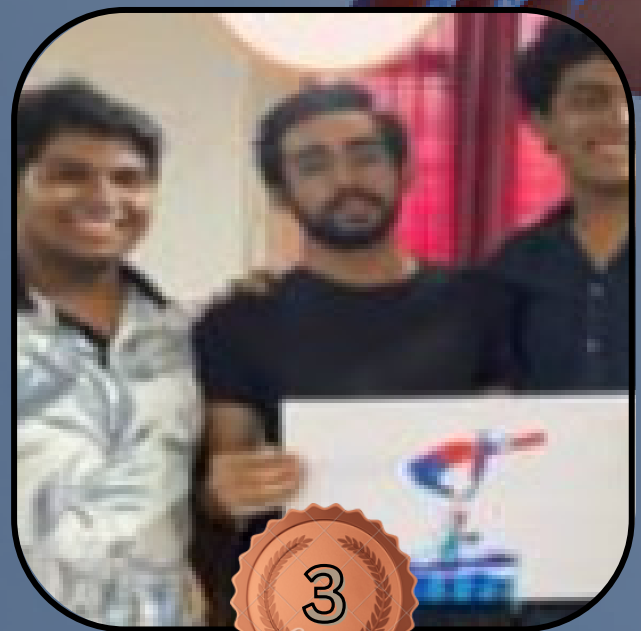
**ADIT SHARMA**



**SACHIN  
KUMAR BAY**

# TECHNICAL POSTER MAKING COMPETITION

THEME: KRITRIM INTELLIGENCE



# CRICKET TOURNAMENT



Dr Akhilesh Das Gupta Institute  
of Technology & Management  
FC-26, Shalaji Park, Delhi-110053  
Approved by AICTE and Affiliated to GGSIPU



DEPARTMENT OF INFORMATION TECHNOLOGY

PRESENTS

## CRICKET - TOURNAMENT -

VIKAS VIKINGS



GARY GIANTS



PULKIT PACERS



SAURABH STRIKERS



VENUE: Cricket Ground

DATE: 24th December 2022 | TIME: 10:00 am - 3:30 pm

#SHAPINGGENERATIONS

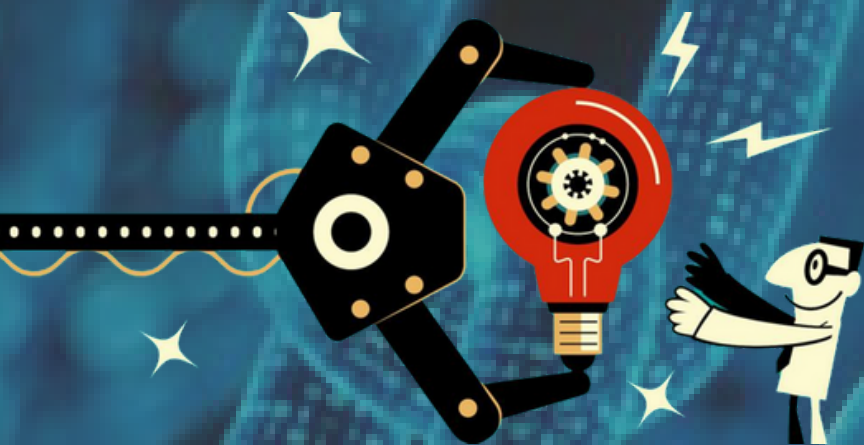
## WINNER: PULKIT PACERS

# SEMINAR

**CURRENT TRENDS IN I.T. TECHNOLOGY**



**SPEAKER: DR. DEEPAK KUMAR SHARMA  
(ASSISTANT PROF. , IGDTUW)**



# FACULTY PATENTS





**Dr. Meenakshi Yadav**

**Intelligent Robot-Assisted IoT for Germicide Spray at Hospital Lavatories** A novel approach for energy efficient wireless sensor network using combination of sensor node's position and communication range

**Ms. Meenakshi Aggarwal**


**Internet of Things Enabled Smart Shoes**

**Mr. Joginder Kaushik**

**A Data Entry Optical Character Recognition Tool using Convolutional Neural Networks** Vision based cursor control virtual mouse system.

**Mr. Ved Prakash Sharma**

**Online auction system using machine learning**



**FACULTY  
PUBLICATIONS ,  
FDPS &  
CERTIFICATIONS**

# DR. PINKI NAYAK

- **4-Week-Women-Entrepreneurship-Development Program, sponsored by DST, organized by Jamia Hamdard University, Delhi : Aug-Sep 2022.**
- **NPTEL Certification on "Applied Accelerated Artificial Intelligence", 12 week course, July-Oct 2021**
- **IBM Skill Academy certification: Getting Started with Enterprise Data Science, Sep 2022.**
- **IBM developer Skill Network certification: Python 101 for Data Science, Sep 2022.**
- **Program Committee member & reviewer in 4th International Conference on Communication and Intelligent Systems, ICCIS 2022, organised by NIT, Delhi, December 19-20,2022**

# VEDPRAKASH SHARMA

- **FDP on Designing and Modelling of IoT, AI & ML Systems FDP on "Machine Learning: NPTEL, SWAYAM".**
- **Certification on " Machine Learning: NPTEL, SWAYAM " , July-Sep 2022.**

## **DR. PREETY**

- **A Cognitive Architecture based Conversation Agent Secure Communication.**
- **FDP on Designing and Modelling of IoT, AI & ML Systems**

## **MS. ASHU**

- **Machine Learning and the Internet of Medical Things in Healthcare page no. 113-134.**
- **Quantitative Assessment of Fetal Well-being Through CTG Recordings Page no. - 291**

## **MS. IRAM FATIMA**

- **International conference certificate, PMP certification, Business analyst, Excel from simpilearn.**
- **French language certification from allaince francaise.**

# OUR RECRUITERS



# LETTER FROM EDITOR IN-CHIEF

Dear Readers,

It is my pleasure to welcome you to the latest issue of our magazine. As the Editor in Chief, I am excited to present to you a diverse range of articles that cover a wide variety of topics, from current events to lifestyle and everything in between.

In this issue, we have several feature stories that I believe will pique your interest. We have a piece that explores the impact of social media on mental health.

Your feedback is important to us and helps us to continually improve the quality of our content.

As always, our team has worked tirelessly to bring you the most informative and engaging content possible. We strive to provide a platform where diverse voices can be heard and ideas can be exchanged, and we hope that you find the magazine motive to be a reflection of that mission.

Thank you for your continued support to our magazine. We look forward to bringing you more thought-provoking content in the future.

Sincerely,

Mrs. Preety Verma Dhaka  
Editor In-Chief  
(Associate Professor , I.T.)

# **EDITORIAL TEAM**



**MS. MEGHA**  
**( ASSISTANT PROFESSOR )**



**VEER YADAV**  
**( I.T. , 2021-25 )**



**RIDDHIMA GARG**  
**( I.T. , 2021-25 )**