# BABU BANARASI DAS
## INSTITUTE OF TECHNOLOGY AND MANAGEMENT

BBDITM

(FORMERLY KNOWN AS BABU BANARASI DAS NATIONAL INSTITUTE OF TECHNOLOGY AND MANAGEMENT)

# ELECTRONICA

THE MAGAZINE OF INNOVATION AND INSIGHTS

DEPARTMENT OF

## ELECTRONICS & COMMUNICATION

**BBDITM** | BABU BANARASI DAS INSTITUTE OF TECHNOLOGY AND MANAGEMENT

CONNECTING IDEAS. CREATING IMPACT. INSPIRING TOMORROW.

**SESSION 2023-24**

# EDITORIAL BOARD

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**PROFESSOR & HOD, ECE BBDITM**

**MR. PANKAJ VERMA**
**ASSISTANT PROFESSOR, ECE BBDITM**

## STUDENT COORDINATORS

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**ANURADHA YADAV (EC2)**

*"You have to dream before your dreams can come true."*

*– Dr. A.P.J Abdul Kalam*

# WORDS OF THANKS

***We are highly thankful to every member for their dedications and hard work. It is the team work that made this Magazine possible. We on behalf of our team would also like to express our gratitude towards our readers.***

**THANK YOU**

.

# Our Inspiration

## LATE BABU BANARASI DAS JI

**(1912 – 1985)**

**Ex Chief Minister**

**Govt. of Uttar Pradesh**

"*To provide an open opportunity to the young generation for evolving their core competencies and to build their career as world class professionals with broad based foundation, in-depth knowledge & versatile personality to meet the challenges of Global Economy…*" – Babuji's Vision.

# Cherishing Founder

## DR. AKHILESH DAS GUPTA

**MBA, LLB, Ph.D**

**Ex-Member of Parliament (Rajya Sabha)**

**Hon'ble Founder Chairman, BBD Group**

"*We not only make technocrats at BBD, we churn out citizens of the world, perfect in all respect in all respects, be it leadership, competence, confidence, communication, moral or knowledge…*" – **Akhilesh Das Gupta's Vision.**

## MRS. ALKA DAS

**CO-FOUNDER & CHAIRPERSON, BBD EDUCATIONAL GROUP**
**ADVOCATE AND SOCIALWORKER**

*"A lady with spirit, determination and zeal, Mrs. Alka Das has been the driving force behind her husband Dr. Akhilesh Das. She is the daughter of Late Justice D.P. Gupta, who held high positions in the State of Rajasthan, as its Governor and Chief Justice. She was brought up on Gandhian ideals and philanthropic traditions."*

## MR. VIRAJ SAGAR DAS

**PRESIDENT, BBD GROUP**
**PRESIDENT, UP BADMINTON ASSOCIATION**
**VICE PRESIDENT, INDIA BADMINTON ASSOCIATION**

## MS. SONAKSHI DAS

**VICE-PRESIDENT, BBD GROUP**

## MR. R.K.AGARWAL

**CHIEF EXECUTIVE DIRECTOR, BBD EDUCATIONAL GROUP**

## VISION OF INSTITUTE

"To become a leading institute of providing professionally competent and socially responsive technocrats with high moral values"

## MISSION OF INSTITUTE

**M1:** To create an eco-system for the dissemination of technical knowledge, to achieve academic excellence.
**M2:** To develop technocrats with creative skills and leadership qualities, to solve local and global challenges.
**M3**: To impart human values and ethics in students, to make them socially and Eco-friendly responsible.

## VISION OF DEPARTMENT

"To emerge as a globally recognized center of excellence in engineering education, fostering innovation, ethical values, entrepreneurial spirit and leadership qualities to create professionals who contribute meaningfully to society and industry"

## MISSION OF DEPARTMENT

**M1:** To achieve global standards of excellence through continuous synchronization with the latest technologies and innovation.
**M2**: To adopt effective pedagogical methods that bridge theoretical concept with practical applications for deeper understanding.
**M3**: To inculcate professional ethics, self learning abilities, entrepreneurial skills and leadership qualities for holistic professional success.

## PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

**PEO 1**: Graduate of the program shall be adaptive to emerging technologies to pursue their career in hardware and software industry.

**PEO 2**: Graduate of the program shall have technical excellence to augment their proficiency towards higher education and progress in research.

**PEO 3**: Graduate of the program shall have professional and ethical attitude to uphold team work skills and multidisciplinary approach.

## PROGRAM SPECIFIC OUTCOMES (PSOs)

**PSO 1**: In depth theoretical & practical knowledge of modern engineering in electronic circuitry .

**PSO 2**: Design and analyze modern communication systems to meet the present and future needs of industry with cost effective solutions.

## DIRECTOR'S MESSAGE-

It gives me immense pleasure to see Magazine from the Department of Electronics and Communication, showcasing their overall academic achievements.

I congratulate Dr. Shailendra Tahilyani, HoD (ECE) for motivating and guiding the faculty members, staffs and students in achieving the best in their academic endeavors.

Keep it up the good work and try to achieve the targets for upcoming academic session.

I wish you the most productive year ahead!

***Prof (Dr.) Shailendra Singh Chauhan***
***DIRECTOR***
***BBDITM***

## HOD'S MESSAGE-

The vision of the department is to nurture successful engineers and in this pursuit, all the staffs and faculties of the department continuously strive to bring out the best from the student's talent pool.

We are now a NBA Accredited Department and to keep up the same momentum and temperament from all of us towards the excellent work, looking forward to the upcoming semester with lots of expectations from all the stakeholders.

With Best Wishes

***Prof (Dr.) Shailendra Tahilyani***
***HOD (EC)***
***BBDITM***

## EDITOR'S MESSAGE-

Dear Readers,

ECE department is achieving excellence in shaping the personality of our students through hosting a number of activities.

Glimpse of the MAGAZINE takes us through all the departmental achievements/activities which happened to strengthen our departmental vision.

Thanks & Regards

***Mr. Pankaj Verma***
***Assistant Professor***
***ECE, BBDITM***

# ➢ EVENT ORGANIZED @ ECE DEPARTMENT

## 1. Induction Program

**Objective of the event: -**

The goal of engineering education is to train engineering graduates in branch of admission, have a holistic personality and must have desire to serve society and nation. It is expected that an engineering graduate work for solving the problems of society using the modern technologies and practices. That needs the broad understanding of the society and relationships. It is needed to cultivate the human values in engineering graduates to fulfill his responsibilities as an engineer, a citizen and a human being.

Department of electronics and communication, BBDITM, Lucknow conducted induction program for students on 25/10/2023, to overcome issues like their differences in education background, their interest towards engineering etc., it is necessary to create an environment for students so that they feel comfortable, find their interest and explore their inner beings, create bonding with other students, establish relation with teachers, work for excellence, get a broader view of life and practice human values to build characters.

**Glimpses of Event:**

The Induction Program covers the various activities which enables them to overcome all such issues and motivates them to perform well in their chosen branch of Electronics and communication engineering.

## 2. Debate Competition on occasion of National Education Day

**Event's Brief:**

Department of Electronics and Communication, BBDITM organized an event with the collaboration of IIC (Institution Innovation Council) to celebrate "National Education Day" on 08th Nov 2023 from 11:00 AM onwards. On November 11, the entire nation celebrates National Education Day like a festival. Students of the department prepared their points on the debate topic" National Education Day" to give their tribute to Maulana Abul Kalam Azad for his commendable contribution to the education sector.

The basic learning of the event was to understand and develop the role of education to focus on various ways to curb pollution. Students need to develop methodologies to mitigate the pollution menace. Students contributed with ponder able point upon the same issue

**Objective of the event**: -

**1.** The objective of organizing this event is to understand the National Education Policy.

**2.** To promote consciousness about the role of education in dealing with menace of pollution across India.

**Benefits in terms of Learning/ Skill/ Knowledge Obtained**: -

On November 11, the entire nation celebrates National Education Day like a festival. Students of the department prepared their points on the debate topic" National Education Day" to give their tribute to Maulana Abul Kalam Azad for his commendable contribution to the education sector.

The basic learning of the event was to understand and develop the role of education to focus on various ways to curb pollution. Students need to develop methodologies to mitigate the pollution menace. Students contributed with ponder able point upon the same issue.

**Events Photo:**

**Student Participants for the Debate competition**

## 3. Debate Competition on topic 'Contributions of scientists towards the development of Nation' (On occasion of National Science Day)

**Event's Brief:**

The department of ECE, BBDITM, Lucknow organized a Half Day activity on 28th February 2024 on occasion of "**National Science Day**" to spread the message of importance of science and its application among the students. Students of the department of ECE had a very useful panel discussion on the topic "Contributions of scientists towards the development of Nation"

This activity focuses on following points:

**1.** An overview of the contributions of scientists towards the development of the nation.

**2.** Raise awareness towards the importance of scientific inventions and their role and service to the society.

**Glimpses of Event:**

## 2. Ideathon on Innovationfor Social Cause

**Event's Brief:**

The department of Electronics & Communication Engineering, BBDITM, Lucknow organized an ideathon with the collaboration of **IIC** (Institution's Innovation Council) on the topic "**Innovation for Social Cause**" on 19th April 2024.

This event was organized on 19 April 2024 with the motive of exploring the Innovations under the guidance of our respected Head of Department Prof. (Dr.) Shailendra Tahilyani. The students presented the ideas of innovation for social cause.

Event started with speech of Dr. Rupali Agarwal ma'am and followed by student's presentation. The event was judged by the panel of 3 judges. **Creativity** and successful **innovation tools** can help us work through even the toughest of issues.

**Objective of the event: -**

1. The objective of organizing this event is to explore the innovation solutions for the existing social causes from the student's perspective.
2. To promote students creativity and presentation skills.

**Benefits in terms of Learning/ Skill/ Knowledge Obtained: -**

The basic learning of the event was to understand the role of innovation and creativity of an individual. Basic social causes existing in the society and their possible solutions.

**Events Photographs:**

**Student Participants for the Debate competition**

**3. Debate on theme Digital Innovation for sustainable development:**

**Event's Brief:**

The Department of Electronics and Communication**,** BBDITM organized a Debate on theme "**Digital Innovation for sustainable development**" with the collaboration of IEEE, IETE & IIC (Institution Innovation Council) on 17th may 2024.

**Objective of the event: -**

1. The goal is to promote awareness in education community about communication technologies using which information and knowledge can be freely created, used and shared.
2. To develop creative thought process and oral presentation skills

The students presented the broad spectrum of ICT's role in development, from promoting cyber security and broadband for sustainable development. In the debate emphasis was on ICT's role in health, education, and environmental protection. It serves as a reminder of the critical role that ICT plays in achieving global development goals, ensuring that everyone, everywhere, can benefit from the advances in technology.

**Events Photographs:**

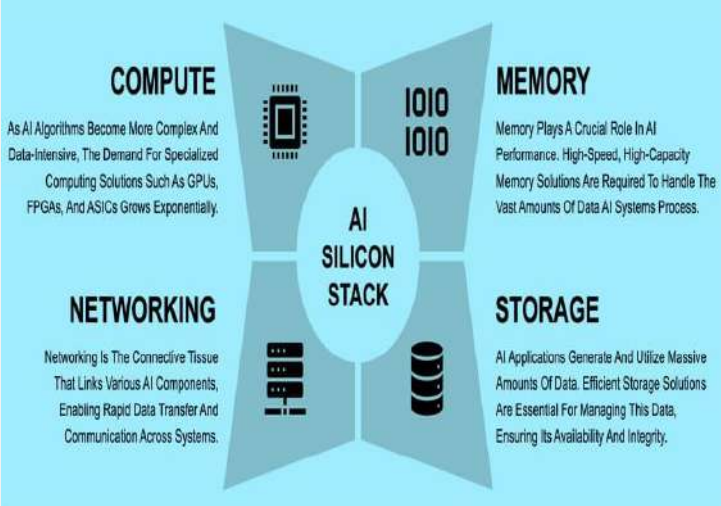
## ➢ FACULTY CORNER :

### ❖ AI Silicon Opportunity: Revolutionizing Memory, Storage, Compute, & Networking :

***Grab a front-row seat to semiconductor pioneers shaping the future with AI-specific custom silicon chips.***

The artificial intelligence (AI) market is rapidly expanding, offering significant growth opportunities for the semiconductor industry. This growth is mainly due to the increasing demand for AI chips, essential for executing AI workloads. In 2023, the revenue from semiconductors designed for AI workloads will reach $53.4 billion, representing a substantial 20.9% increase from 2022. This growth indicates the reliance on specialized chips to handle complex AI processes.

This statistic underlines the crucial role of AI in driving growth in the semiconductor industry. As AI technology advances and integrates into various sectors, the demand for specialized AI chips will surge, presenting lucrative opportunities for semiconductor companies. The focus on developing and supplying AI-specific semiconductors is not just a response to current market trends but a strategic move toward capturing a significant share of the burgeoning AI market. On top of that, the rise of AI marks a substantial departure from traditional technology paradigms, emphasizing the critical role of hardware in enabling advanced AI applications.



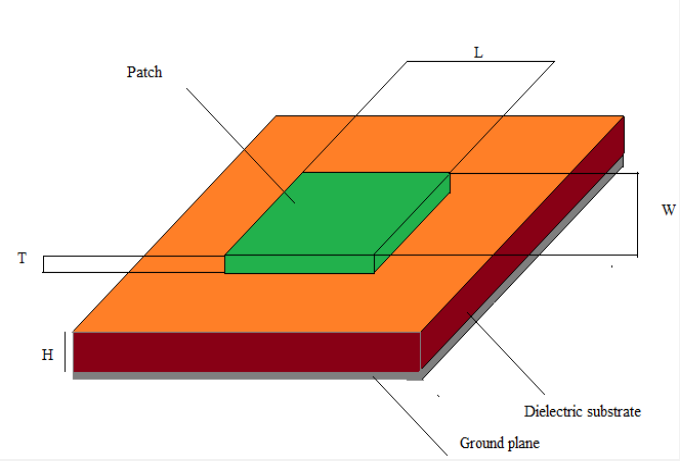

Semiconductor companies, historically focused on mass-producing generic components, now find themselves at the forefront of a technological revolution. These companies can gain a competitive edge in a rapidly evolving market by providing unique memory, storage, computing, and networking solutions.

***Mr . Navneet Kumar Pandey***
*Assistant Professor*
*Electronics & Communication Engineering*

## ❖ Role of Microstrip Patch Antenna in Communication Systems :

In communication system antenna plays a vital role in finding the main characteristics of the system. The antenna is used as a resonant circuit because it transfers energy from electrostatic to electromagnetic mode or vice versa. It is also used to match the transmission line and load impedance for maximum power transfer. Today is the era of wireless and microwave engineering where device size is much small. There are many conventional antennas such as Yagi-Uda, Helical, Horn, Parabolic etc. which have high gain and bandwidth but they have also complex 3D structure, very big size and also having large volume so they are not well suited for wireless applications. For wireless and microwave applications a new antenna called Microstrip antenna is used which has small volume, light weight, lower cost, conformable to planar and non-planar configuration etc. Microstrip antenna is highlighted in near about 1970's although the first design and theoretical model appeared in 1950's.

The Microstrip patch antenna consists of a thin metallic strip (patch) etched on a dielectric substrate above a ground plane. The patch is designed in such a way so that we get pattern maximum normal to the patch. The strip and ground plane are separated by dielectric sheet. The configuration of Microstrip antenna is given as –




Microstrip Patch Antenna plays a vital role in communication systems. The main advantages of Microstrip patch antenna are compact planar structure, low volume, low weight, lower cost of fabrication, compatibility with MMIC technology, with the help of single change in feed position multiple polarizations are possible, both linear and circular polarizations are possible, can be fed with planar feed during fabrication itself etc.

Microstrip Patch Antenna can be used in various applications including aircraft, spacecraft, satellite, missile, mobile radio, healthcare, radio frequency identification and wireless communications.

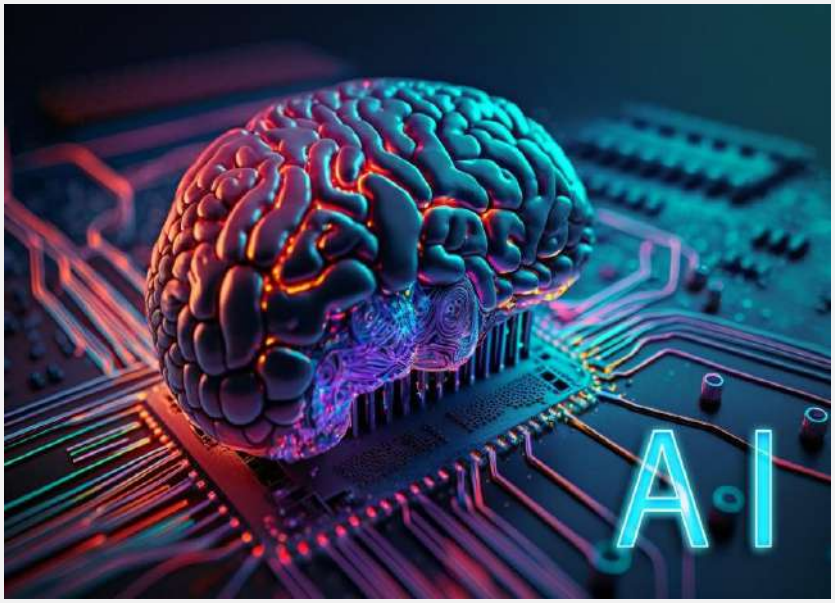
***Mr. Diwakar Singh***
*Assistant Professor*
*Electronics & Communication Engineering*

➢ **STUDENT CORNER :**

## ❖ Artificial Intelligence

Artificial intelligence is the simulation of human intelligence processes by machines, especially computer systems. Specific applications of AI include expert systems, natural language processing, speech recognition and machine vision.

As the hype around AI has accelerated, vendors have been scrambling to promote how their products and services use it. Often, what they refer to as AI is simply a component of the technology, such as machine learning. AI requires a foundation of specialized hardware and software for writing and training machine learning algorithms .No single programming language is synonymous with AI, but Python, R, Java, C++ and Julia have features popular with AI developers.



In general, AI systems work by ingesting large amounts of labeled training data, analyzing the data for correlations and patterns, and using these patterns to make predictions about future states. In this way, a chatbot that is fed examples of text can learn to generate lifelike exchanges with people, or an image recognition tool can learn to identify and describe objects in images by reviewing millions of examples.

***Dipika Srivastava***
*2000540310013*
*EC4*

# ❖ Internet of Things

IoT, or the Internet of Things, is a network of interconnected devices that communicate and share data via the internet. It enables common things to gather, transmit, and receive data, hence increasing automation, efficiency, and convenience. From smart homes and wearable devices to industrial automation and smart cities, IoT is transforming many facets of our lives. Its rise is being driven by technological advancements, which are paving the way for a more interconnected and smarter society.

**Applications of the Internet of Things:**

**Smart Homes**: IoT has transformed home automation by providing a myriad of conveniences such as smart lighting, thermostats, security cameras, and appliances. With IoT-enabled equipment, homeowners can remotely control many parts of their homes via smartphone apps or voice commands, improving comfort, security, and energy efficiency.

**IoT** plays an important role in remote patient monitoring, wearable health monitors, and smart medical devices. These advancements allow healthcare providers to monitor patients' health in real time, measure vital signs, and provide individualized care, ultimately improving patient outcomes and lowering healthcare expenditures.

**Smart Cities**: The Internet of Things enables the development of smart cities by maximizing resource use, boosting public services, and improving urban infrastructure. From smart transportation systems and trash management to environmental monitoring and emergency response, IoT technologies enable municipal governments to address urban challenges more effectively and create sustainable urban environments.

**Industrial Automation**: IoT-driven automation is transforming manufacturing operations, supply chain management, and predictive maintenance. Manufacturers may enhance efficiency and reduce downtime by putting IoT sensors in machinery and equipment.

**Challenges**

IoT deployment presents problems such as data privacy, interoperability, and cyber security hazards, despite its promise for transformation. To address these problems, strong legal frameworks, industry standards, and cyber security measures are required to protect data and ensure the smooth integration of IoT devices.

Looking ahead, the expansion of 5G technology, edge computing, and artificial intelligence promises even greater improvements in the Internet of Things. These breakthroughs will propel the rise of IoT ecosystems, creating new opportunities for innovation and driving digital transformation across industries.

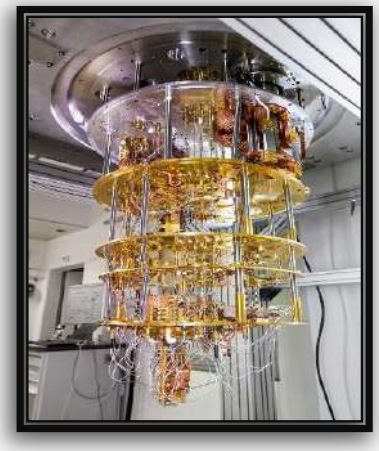
**Conclusion:**

As we embrace connectivity and digitization, the Internet of Things is a tremendous force pushing innovation and transforming our technology interactions. With its numerous uses and revolutionary potential, IoT has the potential to transform industries, improve quality of life, and pave the way for a more connected and sustainable future. Understanding and utilizing the power of IoT will help students and future innovators shape the technology landscape of tomorrow.

***Meher Fatima***
2000540310024
*EC4*

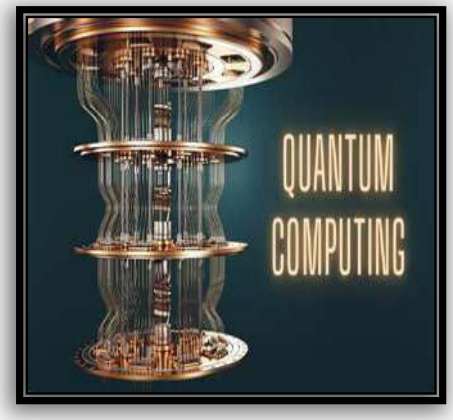
## ❖ Quantum Computing: -The Future of Technology

Quantum computing is poised to revolutionize technology by solving complex problems that are impossible for classical computers. Unlike traditional computers that use bits (0s and 1s), quantum computers use qubits, which can represent both 0 and 1 simultaneously. This superposition allows quantum computers to perform multiple calculations at once, making them exponentially faster for certain tasks. As students, understanding quantum computing opens doors to being part of the next technological frontier.



**Uses:**

- *Cryptography: Quantum computing could crack current encryption methods, leading to new, more secure cryptographic techniques.*
- *Drug Discovery: Simulate molecular interactions quickly, accelerating the development of new medicines.*
- *Optimization: Solve complex logistical and optimization problems in industries like transportation and finance.*




**Benefits:**

**Speed:** *Quantum computers can perform calculations exponentially faster than classical computers for specific tasks.*
**Efficiency:** *Ability to process massive datasets more efficiently, leading to quicker insights and decisions.*
**Innovation:** *Opens up new possibilities in fields like AI, materials science, and environmental modelling.*

***Growth:***

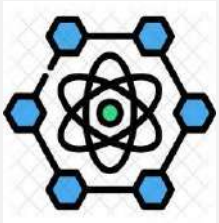
- Investment Surge: Major tech companies and governments are investing billions in quantum research and development.
- Talent Demand: Rising need for quantum scientists, engineers, and developers, offering new career opportunities for students.
- Global Collaboration: Increasing collaboration across countries to accelerate quantum advancements.

***Future Scope:***

- Quantum Internet: Development of a highly secure, fast quantum communication network.
- AI Advancement: Enhancing machine learning algorithms, leading to smarter AI systems.

***Ayush Srivastava***
*2100540310010*
*EC3*

# ❖ NANOTECHNOLOGY-A Revolution in the smallest scale .



## Introduction

Nanotechnology, the science of manipulating materials at an atomic or molecular scale, is unlocking new possibilities across various fields. Operating at the scale of one-billionth of a meter, this technology harnesses unique properties that emerge at the nanoscale, allowing for the creation of stronger, lighter, and more efficient materials.

## Foundation

At the heart of nanotechnology lies the ability to control matter at the nanoscale, where materials often exhibit different properties than they do at larger scales. For instance, materials can become stronger, more conductive, or even change color.

## Applications of Nanotechnology

| Medicine | Energy | Electronics |
|---|---|---|
| In healthcare, nanotechnology is re-olutionizing the way we approach treatment and diagnostics. Nenoparticles are being used to deliver drugs directly to the diseased cells, improvi-ng the effectiveness of treatments like chemotherapy while minimizing side effects.<br><br>Additionally, nanoscale sensors are enabling earlier detection of diseases, leading to better patient outcomes. Tissue engineering is another area benefiting from nanotechnology, where nanoscale scaffolds are being developed to support the growth of new tissues and organs. | The energy sector is experiencing a significant advancement thanks to nanotechnology. In solar energy, researchers are developing nanomaterial that can absorb and convert sunlight more efficiently, leading to more cost-effective solar panels.<br><br>Meanwhile, in energy storage, nanotechnology is enhancing the performance of batteries, making them long-lasting and faster to charge. This has profound implicati-cations for EVs, portable electronics, and renewable energy storage. | The relentless drive towards smaller, faster, and more powerful electronic devices is largely powered by nanotechnology. Nanoscale transistors, for example, are crucial in the ongoing miniaturization of microchips, allowing for the continued advancement of computing power. This progress is enabling the development of more compact and energy efficient devices, from smart phones to supercomputers. |

## Future Outlook

Looking forward, nanotechnology holds the promise of further breakthroughs across numerous fields. From next-generation medical treatments to more efficient renewable energy sources, the potential applications are vast and transformative. As we continue to explore and harness the power of the nanoscale, nanotechnology is set to play a pivotal role in shaping the future of science and technology.

***Aditya Singh***
2100540310003
*EC3*

# CONGARULATIONS

*Congratulations to following students for their exceptional performance in end semester exam* ***Dr. APJ Abdul Kalam Technical University*** *Examination,* ***Odd Semester 2023-24***

| YEAR | UNIVERSITY ROLL NO. | STUDENT NAME | III SEM SGPA |
|---|---|---|---|
| EC 2nd Year | 2200540310021 | JAYSHRI YADAV | 9.20 |
| | 2200540310047 | TARUN TIWARI | 8.72 |
| | 2200540310040 | SAYYED SANIA | 8.52 |
| | 2300540319002 | NIDHI AGRAHARI | 8.40 |
| | 2200540310026 | NIHARIKA ANAND | 8.36 |

| YEAR | UNIVERSITY ROLL NO. | STUDENT NAME | III SEM SGPA |
|---|---|---|---|
| EC 3rd Year | 2200540319006 | SUSHMA KUMARI | 8.14 |
| | 2100540310010 | AYUSH SRIVASTAVA | 8.09 |
| | 2100540310003 | ADITYA SINGH | 8.05 |
| | 2100540310017 | MOHD ZAID | 7.73 |
| | 2100540310018 | MUKESH SHARMA | 7.64 |

| YEAR | UNIVERSITY ROLL NO. | STUDENT NAME | III SEM SGPA |
|---|---|---|---|
| EC 4th Year | 2000540310013 | DIPIKA SRIVASTAVA | 9 |
| | 2000540310024 | MEHER FATMA | 8.44 |
| | 2000540310019 | JANHAVI SRIVASTAVA | 8.33 |
| | 2000540310003 | AGHA HAYAAT FATMA | 8.33 |
| | 2000540310004 | AMIT DIXIT | 8.28 |

## ➢ FDP attended / Patent / Research Paper published by faculty members-

**Dr. Rupali Agarwal**
Associate Professor
Electronics & Communication Engineering

**Events Attended**

**[1]** Participated in one week **FDP** on topic "Trends in Technological Intelligence 2023" organized by Department of Electronics & Communication Engineering and Electrical Engineering, BBDNIIT Lucknow during 21-25 Aug 2023.

**[2]** Participated in one week **FDP** on topic "Artificial Intelligence for Sustainable Development" organized by Department of Computer Science Engineering, School of Engineering, BBDU Lucknow during 03-07 Oct 2023.

**[3]** Participated in Microsoft, SAP and AICTE led one week **FDP** on topic "AI Evolution: From Foundations to Generative AI" organized by TechSaksham during 05-09 Feb 2024.

**[4]** Participated in one week **FDP** on topic "Generative AI" organized by Department of Electronics and Communication Engineering and Electrical Engineering, BBDNIIT, Lucknow during 29 Apr - 03 May 2024.

**Mr. Pankaj Verma**
Assistant Professor
Electronics & Communication Engineering

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**[4]** Participated in one week **FDP** on topic "Generative AI" organized by Department of Electronics and Communication Engineering and Electrical Engineering, BBDNIIT, Lucknow during 29 Apr - 03 May 2024.

**Mr. Amit Kumar Singh**
Assistant Professor
Electronics & Communication Engineering

**Events Attended**

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**[4]** Participated in one week **FDP** on topic "Generative AI" organized by Department of Electronics and Communication Engineering and Electrical Engineering, BBDNIIT, Lucknow during 29 Apr - 03 May 2024.

**Dr. Abhimanyu Kumar Yadav**
Associate Professor & DI
Electronics & Communication Engineering

**Events Attended**

**[1]** Participated in one week **FDP** on topic "Artificial Intelligence for Sustainable Development" organized Department of Computer Science and Engineering, School of Engineering, Babu Banarasi Das University by during October 03, 2023 to October 07, 2023.

**[2]** Participated in one week **FDP** on topic "Entrepreneurship Development" organized by I.T.S Engineering College, Greater Noida during 19 June 2023 to 02 July 2023.

**[3]** Participated in Microsoft, SAP and AICTE led one week **FDP** on topic "AI Evolution: From Foundations to Generative AI" organized by TechSaksham during 05-09 Feb 2024.

**[4]** Participated in one week **FDP** on topic "Generative AI" organized by Department of Electronics and Communication Engineering and Electrical Engineering, BBDNIIT, Lucknow during 29 Apr - 03 May 2024.

**Mr .Navneet Kumar Pandey**

Assistant Professor

Electronics & Communication Engineering

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**[4]** Participated in one week **FDP** on topic "Generative AI" organized by Department of Electronics and Communication Engineering and Electrical Engineering, BBDNIIT, Lucknow during 29 Apr - 03 May 2024.

**Mr. Diwakar Singh**

Assistant Professor

Electronics & Communication Engineering

**Events Attended**

**[1]** Participated in one week **FDP** on topic "Trends in Technological Intelligence 2023" organized by Department of Electronics & Communication Engineering and Electrical Engineering, BBDNIIT Lucknow during 21-25 Aug 2023.

**[2]** Participated in one week **FDP** on topic "Artificial Intelligence for Sustainable Development" organized by Department of Computer Science Engineering, School of Engineering, BBDU Lucknow during 03-07 Oct 2023.

**[3]** Participated in Microsoft, SAP and AICTE led one week **FDP** on topic "AI Evolution: From Foundations to Generative AI" organized by TechSaksham during 05-09 Feb 2024.

**[4]** Participated in one week **FDP** on topic "Generative AI" organized by Department of Electronics and Communication Engineering and Electrical Engineering, BBDNIIT, Lucknow during 29 Apr - 03 May 2024.

**Mr. Ravi Shankar**
Assistant Professor
Electronics & Communication Engineering

**Events Attended**

**[1]** Participated in one week **FDP** on topic "Trends in Technological Intelligence 2023" organized by Department of Electronics & Communication Engineering and Electrical Engineering, BBDNIIT Lucknow during 21-25 Aug 2023.

**[2]** Participated in one week **FDP** on topic "Artificial Intelligence for Sustainable Development" organized by Department of Computer Science Engineering, School of Engineering, BBDU Lucknow during 03-07 Oct 2023.

**[3]** Participated in Microsoft, SAP and AICTE led one week **FDP** on topic "AI Evolution: From Foundations to Generative AI" organized by TechSaksham during 05-09 Feb 2024.

**[4]** Participated in one week **FDP** on topic "Generative AI" organized by Department of Electronics and Communication Engineering and Electrical Engineering, BBDNIIT, Lucknow during 29 Apr - 03 May 2024.

**Mr. Kishan Kumar**
Assistant Professor
Electronics & Communication Engineering

**Events Attended**

**[1]** Participated in one week **FDP** on topic "Trends in Technological Intelligence 2023" organized by Department of Electronics & Communication Engineering and Electrical Engineering, BBDNIIT Lucknow during 21-25 Aug 2023.

**[2]** Participated in one week **FDP** on topic "Artificial Intelligence for Sustainable Development" organized by Department of Computer Science Engineering, School of Engineering, BBDU Lucknow during 03-07 Oct 2023.

**[3]** Participated in Microsoft, SAP and AICTE led one week **FDP** on topic "AI Evolution: From Foundations to Generative AI" organized by TechSaksham during 05-09 Feb 2024.

**[4]** Participated in one week **FDP** on topic "Generative AI" organized by Department of Electronics and Communication Engineering and Electrical Engineering, BBDNIIT, Lucknow during 29 Apr - 03 May 2024.

**Ms. Keerti Mishra**
Assistant Professor
Electronics & Communication Engineering

**Events Attended**

**[1]** Participated in one week **FDP** on topic "Trends in Technological Intelligence 2023" organized by Department of Electronics & Communication Engineering and Electrical Engineering, BBDNIIT Lucknow during 21-25 Aug 2023.

**[2]** Participated in one week **FDP** on topic "Artificial Intelligence for Sustainable Development" organized by Department of Computer Science Engineering, School of Engineering, BBDU Lucknow during 03-07 Oct 2023.

**[3]** Participated in 5 day face-to-face UHV-II **FDP** organized by AICTE at SRMCEM, Lucknow from 16 Jan 2024 to 20 Jan 2024.

**[4]** Participated in Microsoft, SAP and AICTE led one week **FDP** on topic "AI Evolution: From Foundations to Generative AI" organized by TechSaksham during 05-09 Feb 2024.

**[5]** Participated in one week **FDP** on topic "Generative AI" organized by Department of Electronics and Communication Engineering and Electrical Engineering, BBDNIIT, Lucknow during 29 Apr - 03 May 2024.

**Mr. Rajeev Singh**
Assistant Professor & DI
Electronics & Communication Engineering

**Events Attended**

**[1]** Participated in one week **FDP** on topic "Trends in Technological Intelligence 2023" organized by Department of Electronics & Communication Engineering and Electrical Engineering, BBDNIIT Lucknow during 21-25 Aug 2023.

**[2]** Participated in one week **FDP** on topic "Artificial Intelligence for Sustainable Development" organized by Department of Computer Science Engineering, School of Engineering, BBDU Lucknow during 03-07 Oct 2023.

**[3]** Participated in one week **FDP** on topic "Generative AI" organized by Department of Electronics and Communication Engineering and Electrical Engineering, BBDNIIT, Lucknow during 29 Apr - 03 May 2024.

## ➢ RESEARCH PAPER PUBLISHEH BY FINAL YEAR STUDENTS (SESSION 2023-24)

| S. No. | University Roll No. | Name of Student | Project Guide | Title of Paper | Name of Journal |
|---|---|---|---|---|---|
| 1. | 2000540310037 | Suraj Singh Rajput | Prof (Dr.) Shailendra Tahilyani | Seamless Health Monitoring and Emergency Response Smartwatch | Journal of Emerging Technologies and Innovative Research(JETIR) Volume 11, Issue 5,May 2024, (ISSN: 2349-5162) |
| 2. | 2000540310011 | Derek S Varghese | | | |
| 3. | 2000540310025 | Munish Yadav | | | |
| 4. | 2000540310028 | Pankaj Jena | | | |
| 5. | 2000540310034 | Shubham Sachan | Dr. Abhimanyu Kumar Yadav | Solar powered object detector with analytical thinking for warfield spying | Journal of Emerging Technologies and Innovative Research(JETIR) Volume 11, Issue 5,May 2024, (ISSN: 2349-5162) |
| 6. | 2000540310022 | Laraib Ali | | | |
| 7. | 2000540310010 | Aviral Gaur | | | |
| 8. | 2000540310024 | Meher Fatma | Mr. Pankaj Verma | Iot Based Person/Wheelchair Fall Detection System | Journal of Emerging Technologies and Innovative Research(JETIR) Volume 11, Issue 5,May 2024, (ISSN: 2349-5162) |
| 9. | 2000540310004 | Amit Dixit | | | |
| 10. | 2000540310038 | Sushant Kumar Yadav | | | |
| 11. | 2000540310006 | Ankit Kumar | | | |
| 12. | 2100540319002 | Dharmendra Gupta | Mr. Diwakar Singh | IOT Based Ration Vending Machine | Journal of Emerging Technologies and Innovative Research(JETIR) Volume 11, Issue 5,May 2024, (ISSN: 2349-5162) |
| 13. | 2000540310017 | Harsh Vardhan Singh | | | |
| 14. | 2000540310023 | Manjit Kumar Paswan | | | |
| 15. | 2000540310005 | Anand Vikram Singh | | | |

| S. No. | University Roll No. | Name of Student | Project Guide | Title of Paper | Name of Journal |
|---|---|---|---|---|---|
| 16. | 2000540310021 | Kripali Srivastava | Mr. Navneet Kumar Pandey | Arduino based Sewage Blockage Detector | JETIR Vol. 11, Issue 5, May 2024, ISSN: 2349-5162 |
| 17. | 2000540310018 | Ishita Gupta | | | |
| 18. | 2000540310036 | Sunny Kumar | | | |
| 19. | 2000540310008 | Anubhav Seth | | | |

| | | | | | |
|---|---|---|---|---|---|
| 20. | 2000540310001 | Abhinav Shukla | Dr. Rupali Agarwal | Smart Wearable for Rescuers/ Victims | Journal of Emerging Technologies and Innovative Research(JETIR) Volume 11, Issue 5, May 2024 (ISSN: 2349-5162) |
| 21. | 2000540310019 | Janhavi Srivastava | | | |
| 22. | 2000540310035 | Sumit Rauniyar | | | |
| 23. | 2000540310027 | Onkar Sharma | | | |
| 24. | 2000540310002 | Sahil Kumar Rai | Mr. Kishan Kumar | Overload Detection System of an Electric Meter for a Household | IJCRT Vol. 16, Issue 2, June 2024, ISSN: 2320-2882 |
| 25. | 2000540310002 | Ankit Singh | | | |
| 26. | 2000540310002 | Sandeep Mishra | | | |
| 27. | 2000540310013 | Dipika Srivastava | Ms. Keerti Mishra | Waste Segregation mechanism in Smart Dustbin | TIJER Volume 11, Issue 5, May 2024, (ISSN: 2349-9249) |
| 28. | 2000540310014 | Gargi Pandey | | | |
| 29. | 2000540310031 | Sakshi Singh | | | |
| 30. | 2100540319001 | Anshika Pandey | | | |
| 31. | 2000540310026 | Nishi Pandey | Mr. Ravi Shankar | Hybrid Technology for Military Communication | Journal of Emerging Technologies and Innovative Research(JETIR) Volume 11, Issue 5, May 2024, (ISSN: 2349-5162) |
| 32. | 2000540310009 | Anuj Srivastava | | | |
| 33. | 2000540310003 | Agha Hayaat Fatma | | | |
| 34. | 2000540310012 | Devendra Mani Yadav | | | |
| 35. | 2000540310029 | Prince Yadav | Mr. Rajeev Singh | Vehicle Exhaust smoke and Noise Detection with Location Tacking | TIJER Volume 11, Issue 5, May 2024, (ISSN: 2349-9249) |
| 36. | 2000540310016 | Haider Raja | | | |
| 37. | 2000540310033 | Shashwat Shukla | | | |
| 38. | 2000540310039 | Vansaj Verma | | | |
| 39. | 2000540310002 | Adarsh | Mr. Amit Kumar Singh | Library Silence Breaking Alarm System | JETIR Vol. 11, Issue 5, May 2024, ISSN: 2349-5162 |
| 40. | 2000540310015 | Gautam Kumar | | | |

## ➢ GATE - 2023-24 QUALIFIED

| S. No | Name of the Student | University Roll Number | Year of Passing |
|---|---|---|---|
| 1. | Laraib Ali | 2000540310022 | 2024 |
| 2. | Shubham Sachan | 2000540310034 | 2024 |

## ➢ PLACEMENTS @ECE (2023-24) - BBDITM:-

| Student Name & Univ. Roll No. | Company Name | Testimonial |
|---|---|---|
| Nishi Pandey 2000540310026 | Intellismart Infrastructure Pvt.ltd, Indus Towers, Planst Spark, Navitasys India Pvt. Ltd | I am proud to express my gratitude to the BBDITM, which give me path to mold my knowledge. For being a Engineering Student, the biggest attainment is to get an opportunities to get start their career in a good reputed organization. I am very grateful to all my professors and mentors, for mentoring me to achieve this goal and where I am presently. I am very thankful for scholarship offers by University for students like me, to complete my education without any obstruction. |
| Janhavi Srivastava 2000540310019 | Indus Towers | Enrolling in Babu Banarasi Das Institute of Technology and Management was one of the best decisions I've made for my academic and personal growth. The faculty's dedication to student's success is unparalleled, providing not only comprehensive lectures but also fostering an environment where critical thinking and innovation thrive. The diverse range of courses offered me to explore various fields and discover my passions. Additionally, I would like to thank my placement cell for providing me with countless opportunities and getting me placed in an esteemed organisation . I'm grateful for the invaluable and lifelong experiences I've gained during my time here. BBDITM truly prepared me for the challenges ahead and instilled in me a lifelong love for learning. |
| Anuj Srivastava 2000540310009 | Genpact | I am immensely grateful for the invaluable support and guidance provided by Babu Banarsi Das Institute of Technology and Management throughout my placement process. Their dedicated team not only equipped me with the necessary skills and knowledge but also boosted my confidence, enabling me to secure a coveted position at Genpact. I owe a significant part of my success to the exceptional training and mentorship I received here. Thank you for helping me embark on this exciting new chapter in my career. |

| | | |
|---|---|---|
| Sushant Kumar Yadav<br>2000540310038<br> | YUKINOVA | The college's placement services exceeded my expectations. From resume workshops to mock interviews, the preparation was comprehensive. It was instrumental in helping me secure a challenging and rewarding job in my desired field. |
| Ankit Kumar<br>2000540310006<br> | YUKINOVA | The dedicated placement cell at our college not only assisted in finding job opportunities but also organized industry interactions and networking events. These experiences were invaluable in understanding the professional landscape and securing my first job. |
| VansajVerma<br>2000540310039<br> | YUKINOVA | The college's emphasis on practical skills, combined with the proactive placement cell, made my transition from student to professional seamless. The support extended beyond graduation, with alumni networks providing ongoing guidance. |
| Devendra Mani Yadav<br>2000540310012<br> | YUKINOVA | I appreciate the college's commitment to the holistic development of students. The placement team not only helped me secure a job but also provided guidance on professional etiquette and workplace dynamics, ensuring a smooth transition to the corporate world. |
| Meher Fatima<br>2000540310024<br> | Indus Tower | Thank you Babu Banarsi Das Institute of Technology and Management for giving a platform where I nurture myself and I am very thankful to placement cell and our teachers for supporting and guiding me in every step. |
| Amit Dixit<br>2000540310004<br> | HCL TECH | In terms of education, the teachers are highly experienced. With continuous guest lectures, seminars and workshops arranged in college campus help students to gain practical knowledge and get placed in multiple MNCs. I really happy to start my career with MAQ Software. |

| | | |
|---|---|---|
| Sakshi Singh<br>2000540310031<br> | HCLTECH, Navitasys | BBDITM inspired me to think differently both on personal and professional front. It has inculcated a lot of intra and interpersonal skills. Institute provides the right mix of academic rigor and experiential learning. Providing a mentor from day one forever is one of the best things about the institute and I feel great when I discuss my learning failure and achievements with my mentor even now. |
| Gargi Pandey<br>2000540310014<br> | Navitasys, Electric static | My experience at BBDITM is great and memorable. The mentors at BBDITM helped us enhancing my academic and interpersonal skills. I am thankful for Training & Placement cell & providing a platform to enhance my skills and an opportunity to showcase them. |
| Dipika Srivastava<br>200054031013<br> | CEDCOSS Technologies Pvt. Ltd. | I am immensely grateful for my transformative journey at Babu Banarasi Das Institute of Technology and Management. The faculty member's dedication to student success created an environment where I not only received comprehensive education but also honed my critical thinking and innovation skills. The diverse course offerings allowed me to explore various fields, uncovering my true passions. Special thanks to the placement cell for their tireless efforts, providing me with opportunities that led to my placement in a prestigious organization. My time at this institute has been a cornerstone in my personal and professional growth, leaving me well-prepared for the challenges ahead. I wholeheartedly recommend BBDITM to any aspiring student seeking a nurturing and enriching educational experience. |
| Abhinav Shukla<br>2000540310001<br> | Manikaran Analytic Limited Delhi Dwarka | I am really thankful towards our college and placement cell, for supporting and providing us opportunities to learn interview skills, communication skills and guiding us in placements. The staff was supportive and informed us with enough notice regarding every placement drive. |

***REACH US***

***Department of Electronics & Communication Engineering***
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