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BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY

NAVONMESH

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ANNUAL TECH MAGAZINE

5th EDITION

- AI, ML& DEEP LEARNING
- QUANTUM COMPUTING
- MOBILEAPP DEEVELOPMENT
- CYBERSECURITY

ROHINI, NEW DELHI | @BPIT_CSE

2024-2025

VISION

TO EMERGE AS A CENTER OF EXCELLENCE, IN THE FIELD OF COMPUTER SCIENCE AND ENGINEERING & RESEARCH, BY GROOMING OUR PUPILS WITH STRONG CONCEPTUAL KNOWLEDGE TO ENABLE THEM AS A PROFESSIONAL AND RESEARCHER FOR THE BENEFIT OF SOCIETY.

MISSION

- TO INCULCATE SELF-MOTIVATION AMONG THE STUDENTS, WHO CAN FIND AND UNDERSTAND THE NEED OF THE DAY.
- TO PRODUCE BEST QUALITY PROFESSIONALS WITH STRONG CONCEPTUAL KNOWLEDGE AND HANDS-ON EXPERIENCE.
- TO ENABLE THE STUDENTS TO BE TECHNICALLY COMPETENT AMONG THEIR PEERS AND SERVE AS ETHICAL SOFTWARE PROFESSIONALS.
- TO FACILITATE INDUSTRY INTERACTION EXPOSURE FOR THE BENEFIT OF THE STAKEHOLDERS.
- TO MOTIVATE FACULTIES AND STUDENTS FOR CONTINUOUS IMPROVEMENT OF THEIR ACADEMIC STANDARDS WITH QUALITATIVE RESEARCH.

PROGRAM

EDUCATIONAL OBJECTIVES

- TO PROMULGATE STRONG FOUNDATION IN APPLIED SCIENCES, MATHEMATICS AND ENGINEERING FUNDAMENTALS.
- TO BE ABLE TO COMPREHEND, ANALYZE AND MAP THE COMPUTATIONAL LOGICS WITH REAL TIME PROBLEMS.
- TO PROVIDE EXTENSIVE KNOWLEDGE TO DESIGN AND BUILD PRODUCTS WITH INNOVATIVE SOLUTIONS FOR PROBLEMS USING THEIR SKILLS IN COMPUTER SCIENCE AND ENGINEERING AND OTHER RELATED DOMAINS.
- TO INCULCATE ATTRIBUTES SUCH AS SELF-CONFIDENCE, ETHICS, TEAMWORK, LEADERSHIP SKILLS, COMMUNICATION SKILLS FOR LIFE-LONG LEARNING.
- TO SUCCEED WITH EXCELLENCE AS COMPUTER PROFESSIONALS OR SUCCESSFUL ENTREPRENEURS OR PURSUE HIGHER STUDIES THROUGH QUALITY EDUCATION.

PROGRAM

SPECIFIC OUTCOME

- TO DEVELOP AND INTEGRATE KNOWLEDGE OF DIFFERENT DISCIPLINES- COMPUTER SCIENCE, ELECTRONICS, ECONOMICS, MATHEMATICS AND STATISTICS TO ANALYZE AND DESIGN COMPUTING SOLUTIONS TO SOLVE THE PROBLEMS IN DIFFERENT DOMAINS.

- TO DEMONSTRATE RESEARCH AND TECHNICAL SKILLS FOR EMERGING AREAS TO PRODUCE SOLUTIONS TO PROBLEMS THROUGH OPEN SOURCE AND PROPRIETARY PLATFORMS.

- TO EXHIBIT THE ABILITY TO ETHICALLY EXCEL IN LIFE-LONG PROFESSIONAL CAREER, HIGHER STUDIES AND ENTREPRENEURSHIP WITH GOOD COMMUNICATION, WRITING AND LEADERSHIP SKILLS FOR THE BENEFIT OF SOCIETY

CHAIRMAN'S DESK

"WE CANNOT ALWAYS BUILD THE FUTURE FOR OUR YOUTH, BUT WE CAN BUILD OUR YOUTH FOR THE FUTURE."

BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY IS DEEPLY COMMITTED TO THE HOLISTIC DEVELOPMENT OF OUR STUDENTS, FOSTERING THEIR SOCIAL AND SPIRITUAL VALUES ALONGSIDE ACADEMIC EXCELLENCE. WE AIM TO CULTIVATE PROFESSIONALS WHO CAN THRIVE IN DIVERSE CULTURAL ENVIRONMENTS. BPIT IS RAPIDLY EMERGING AS ONE OF DELHI NCR'S PREMIER INSTITUTIONS, KNOWN FOR ITS WORLD-CLASS ACADEMIC STANDARDS THAT PRODUCE SOCIALLY-CONSCIOUS LEADERS AND ENTREPRENEURS. OUR INSTITUTE BOASTS AN EXCEPTIONAL PLACEMENT RECORD, PLACING US AMONG THE NATION'S TOP EDUCATIONAL INSTITUTIONS. SINCE OUR INCEPTION, WE HAVE DEDICATED OURSELVES TO ENHANCING ACADEMIC QUALITY BY PROVIDING TOP-NOTCH TECHNICAL EXPERTISE TO OUR STUDENTS.

SHRI VINOD VATS

PADMA SHRI SURENDER SHARMA

VICE PRESIDENT'S DESK

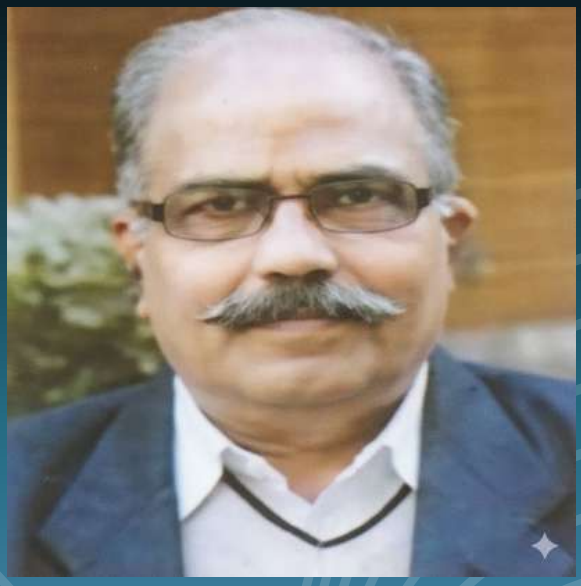
"IMAGINATION IS MORE IMPORTANT THAN KNOWLEDGE. FOR KNOWLEDGE IS LIMITED, WHEREAS IMAGINATION EMBRACES THE ENTIRE WORLD, STIMULATING PROGRESS AND GIVING BIRTH TO EVOLUTION"

TECHNOLOGY INITIATES NEW BEGINNINGS, WHICH IN TURN FOSTERS SOCIETAL GROWTH. I AM DELIGHTED TO LEARN THAT THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING AT BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY (BPIT) IS PUBLISHING ITS INAUGURAL TECHNICAL MAGAZINE 'NAVONMESH'. THIS INITIATIVE MARKS A SIGNIFICANT STEP TOWARDS PROGRESS. EVERY STEP TAKEN IN THE RIGHT DIRECTION BRINGS REWARDS. NAVONMESH PROVIDES A PLATFORM FOR THE INNOVATIVE MINDS OF STUDENTS TO THRIVE AND REACH THEIR TRUE POTENTIALS. HEARTFELT CONGRATULATIONS TO THE EDITORIAL BOARD FOR BRINGING IT ALL TOGETHER.

GENERAL SECRETARY'S DESK

"INGENUITY, THE LIMITLESS SPARK OF INNOVATION, BREAKS THROUGH THE WALLS OF CONVENTION"

AS THE DIGITAL AGE PROPELS US INTO AN ERA FILLED WITH EXTRAORDINARY PROSPECTS, THE EVOLUTION OF SOCIETY IS NOT JUST A POSSIBILITY, BUT A GUARANTEE. WITH IMMENSE ANTICIPATION, I WELCOME THE LAUNCH OF 'NAVONMESH,' THE PREMIER TECHNICAL JOURNAL FROM THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING AT BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY. THIS AMBITIOUS INITIATIVE REPRESENTS AN IMPRESSIVE LEAP TOWARDS PROGRESS. EVERY STEP FORWARD BRINGS A UNIQUE SET OF REWARDS. THIS JOURNAL PROVIDES A STAGE FOR STUDENTS TO EXPLORE THEIR CREATIVITY AND DISCOVER THEIR FULL CAPACITY. MY HEARTFELT CONGRATULATIONS TO THE EDITORIAL BOARD FOR THEIR ADMIRABLE DEDICATION IN MAKING THIS DREAM A REALITY.



SHRI RAM BABU SHARMA

PROF. PAYAL PAHWA

PRINCIPAL'S DESK

"IT HAS BECOME EVIDENTLY CLEAR THAT OUR TECHNOLOGY HAS SURPASSED OUR HUMANITY"

IT GIVES ME IMMENSE PLEASURE TO LEARN THAT THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING IS LAUNCHING ITS INAUGURAL TECHNICAL MAGAZINE. BPIT IS DEDICATED TO DEVELOPING PROFESSIONAL SKILLS AND FOSTERING INNOVATION AMONG ITS STUDENTS. OVER THE YEARS, THE INSTITUTE HAS CONSISTENTLY EXCELLED IN PROVIDING QUALITY EDUCATION TO ITS STUDENTS. NAVONMESH SERVES AS A REFLECTION OF THE TECHNICAL KNOWLEDGE AND PROJECT WORKS UNDERTAKEN BY THE FACULTY AND STUDENTS THROUGHOUT THE YEAR. I EXTEND MY HEARTFELT CONGRATULATIONS TO THE ENTIRE EDITORIAL BOARD FOR THE PUBLICATION OF THE MAGAZINE. I WISH FOR THE CONTINUED GROWTH OF THE INSTITUTE, ITS STUDENTS, AND FACULTY.

PROF. ACHAL KAUSIK

MESSAGE FROM HOD DESK

WELCOME TO THE DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING.THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (CSE), BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY, HAS MADE FAST STRIDES IN MANY SPHERES SINCE THE INCEPTION OF BPIT IN 2007. IT IS NBA ACCREDITED AND IS WELL-EQUIPPED WITH EXCELLENT ACADEMIC AND RESEARCH FACILITIES TO PRODUCE QUALITY COMPUTER SCIENCE ENGINEERS.

THE EMPHASIS IS ON STUDENTS' HOLISTIC GROWTH THROUGH INNOVATIVE TEACHING METHODS, RESULT-ORIENTED KNOWLEDGE THROUGH REGULAR EXPOSURE TO INDUSTRY, SEMINARS AND POPULAR LECTURES BY EXPERTS. THESE METHODOLOGICAL EFFORTS HELP IN WIDENING THE ACADEMIC HORIZON OF THE STUDENTS. THE CHERISHED DREAM OF THE DEPARTMENT IS TO EQUIP AND GROOM THE STUDENTS WITH CLEAR CONCEPTS & SHAPE THE CAREER OF OUR YOUNG TECHNOCRATS IN TODAY'S FAST-CHANGING DEVELOPMENTS IN COMPUTER TECHNOLOGY.

THE PLACEMENT GRAPH CONTINUES TO HAVE AN UPWARD TREND, WITH MANY STUDENTS AS SUCCESSFUL ENTREPRENEURS. THE GROWTH AND DEVELOPMENT OF THE DEPARTMENT ARE POSSIBLE WITH THE HELP OF AN UNABATING TEAM OF HIGHLY EXPERIENCED AND MOTIVATED FACULTY MEMBERS WITH STATE-OF-THE-ART FACILITIES. THE DEPARTMENT IS KEEN AND DEVOTED TO HELPING REALIZE THE DREAMS OF ITS STUDENTS IN CAREER BUILDING, MOTIVATING THEM TO HIGHER STUDIES AND/OR ENTREPRENEURSHIP.

COMPUTER SCIENCE & ENGINEERING DEPARTMENT

"IDEAS BY THEMSELVES ARE NOT WORTH ANYTHING, ONLY EXECUTING WELL IS WHAT CREATES VALUE."

–SAM ALTMAN

CEO OF OPENAI

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CYBERSECURITY
THE BACKBONE OF THE DIGITAL ERA

IN THE ERA OF RAPID DIGITAL TRANSFORMATION, CYBERSECURITY HAS BECOME AN INDISPENSABLE PILLAR OF COMPUTER SCIENCE AND ENGINEERING. IT ENCOMPASSES THE PRACTICES, TECHNOLOGIES, AND FRAMEWORKS THAT PROTECT COMPUTER SYSTEMS, NETWORKS, AND DATA FROM UNAUTHORIZED ACCESS, MISUSE, OR CYBERATTACKS. ROOTED IN THE CIA TRIAD — CONFIDENTIALITY, INTEGRITY, AND AVAILABILITY — CYBERSECURITY ENSURES THAT DIGITAL INFORMATION REMAINS SECURE, AUTHENTIC, AND ACCESSIBLE ONLY TO AUTHORIZED USERS.

WITH THE RISE OF CLOUD COMPUTING, IOT, AND ARTIFICIAL INTELLIGENCE, THE DIGITAL LANDSCAPE HAS EXPANDED, AND SO HAS THE ATTACK SURFACE. TRADITIONAL SECURITY MEASURES ARE NO LONGER ADEQUATE. MODERN DEFENSE STRATEGIES NOW RELY ON ZERO TRUST ARCHITECTURE, ENCRYPTION ALGORITHMS, AND AI-DRIVEN THREAT DETECTION SYSTEMS CAPABLE OF IDENTIFYING ANOMALIES IN REAL TIME.

CYBER THREATS SUCH AS RANSOMWARE, PHISHING, AND ADVANCED PERSISTENT THREATS (APTS) CONTINUE TO EVOLVE IN COMPLEXITY. TO COMBAT THESE, ORGANIZATIONS USE MACHINE LEARNING MODELS, BEHAVIORAL ANALYTICS, AND AUTOMATED RESPONSE SYSTEMS TO STRENGTHEN THEIR CYBER RESILIENCE.

FOR COMPUTER SCIENCE STUDENTS, CYBERSECURITY OFFERS IMMENSE POTENTIAL AS A CAREER PATH — SPANNING ROLES LIKE ETHICAL HACKER, PENETRATION TESTER, SECURITY ANALYST, AND CYBER FORENSICS EXPERT. CERTIFICATIONS SUCH AS CEH, COMPTIA SECURITY+, CISSP, AND OSCP CAN FURTHER ENHANCE TECHNICAL PROFICIENCY AND EMPLOYABILITY.

AS DIGITAL DEPENDENCE DEEPENS, CYBERSECURITY IS NO LONGER A MERE SAFEGUARD — IT IS THE FOUNDATION OF INNOVATION, PRIVACY, AND TRUST IN TECHNOLOGY. FOR THE ENGINEERS OF TOMORROW, MASTERING CYBERSECURITY MEANS SHAPING A SAFER, SMARTER, AND MORE RESILIENT DIGITAL WORLD.

— TIYA CHAUDHARY (CSE-B)

GENAI

IN A WORLD WHERE TECHNOLOGY EVOLVES AT LIGHTNING SPEED, GENERATIVE AI IS TRANSFORMING THE WAY WE CREATE, COMMUNICATE, AND IMAGINE. FROM DESIGNING BREATHTAKING ART TO COMPOSING MUSIC, WRITING STORIES, AND EVEN GENERATING REALISTIC SIMULATIONS, THIS REVOLUTIONARY TECHNOLOGY IS NO LONGER A DISTANT CONCEPT—IT'S A PRESENT REALITY RESHAPING OUR WORLD.

GENERATIVE AI DOES MORE THAN PROCESS INFORMATION—IT CREATES. LEVERAGING ADVANCED DEEP LEARNING MODELS, IT TURNS IDEAS INTO CONTENT THAT OFTEN RIVALS HUMAN CREATIVITY. ARTISTS, WRITERS, AND SCIENTISTS NOW SHARE THEIR PLAYGROUND WITH MACHINES THAT CAN INSPIRE, INNOVATE, AND EXPAND THE LIMITS OF IMAGINATION.

BUT WITH GREAT POWER COMES GREAT RESPONSIBILITY. ETHICAL CONCERNS—AUTHENTICITY, ORIGINALITY, AND POTENTIAL MISUSE—DEMAND CAREFUL REFLECTION. HOW DO WE ENSURE THIS TECHNOLOGY COMPLEMENTS HUMAN CREATIVITY RATHER THAN REPLACES IT? HOW DO WE SAFEGUARD ORIGINALITY IN A WORLD WHERE MACHINES CAN IMITATE GENIUS?

THE TRUE PROMISE OF GENERATIVE AI LIES IN ITS ABILITY TO DEMOCRATIZE CREATIVITY. IT EMPOWERS ANYONE WITH AN IDEA TO BRING IT TO LIFE, MAKING INNOVATION ACCESSIBLE BEYOND TRADITIONAL BOUNDARIES. THE CANVAS IS LIMITLESS, INVITING US ALL TO EXPERIMENT, IMAGINE, AND DREAM BIGGER.

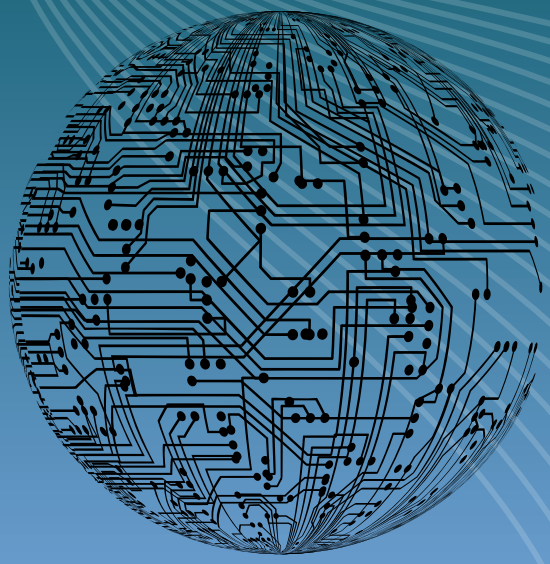
AS WE STAND AT THIS EXCITING CROSSROADS, ONE THING IS CLEAR: GENERATIVE AI IS NOT HERE TO REPLACE US, BUT TO ELEVATE US. IT CHALLENGES US TO RETHINK CREATIVITY, EMBRACE INNOVATION, AND NAVIGATE THE ETHICAL FRONTIER OF TECHNOLOGY. THE JOURNEY HAS JUST BEGUN, AND THE POSSIBILITIES ARE BOUNDLESS.

GENERATIVE AI IS MORE THAN A TECHNOLOGICAL MARVEL—IT'S A SPARK IGNITING A NEW ERA OF CREATION, IMAGINATION, AND EXPLORATION. THE QUESTION ISN'T WHETHER WE CAN HARNESS IT, BUT HOW BRILLIANTLY WE CHOOSE TO SHAPE ITS FUTURE.

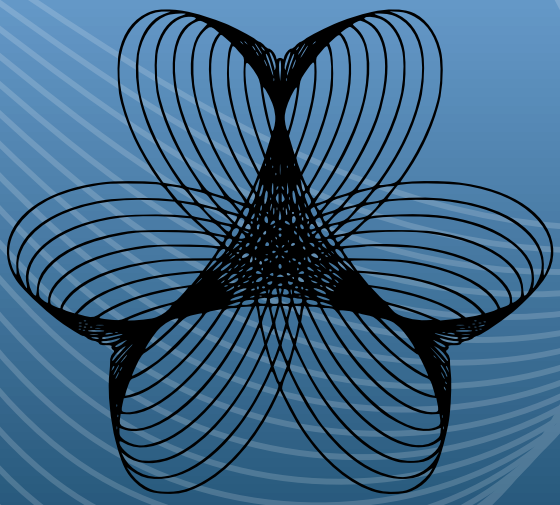
— ASMITA GUPTA (CSE-A)

QUANTUM ENTANGLEMENT: REWIRING THE UNIVERSE'S CODE

QUANTUM COMPUTING REPRESENTS A PARADIGM SHIFT FROM CLASSICAL BITS TO QUBITS, HARNESSING THE BIZARRE PRINCIPLES OF QUANTUM MECHANICS TO SOLVE INTRACTABLE PROBLEMS. UNLIKE BINARY BITS THAT EXIST IN DEFINITIVE STATES OF 0 OR 1, QUBITS LEVERAGE SUPERPOSITION—EXISTING IN MULTIPLE STATES SIMULTANEOUSLY. IMAGINE FLIPPING A COIN THAT LANDS ON HEADS, TAILS, *AND* EVERY POSSIBILITY IN BETWEEN UNTIL OBSERVED. THIS ALLOWS QUANTUM COMPUTERS TO EXPLORE VAST SOLUTION SPACES EXPONENTIALLY FASTER.



CENTRAL TO THIS POWER IS ENTANGLEMENT, WHERE QUBITS BECOME LINKED SUCH THAT THE STATE OF ONE INSTANTLY INFLUENCES ANOTHER, REGARDLESS OF DISTANCE. EINSTEIN DUBBED IT "SPOOKY ACTION AT A DISTANCE," YET IT'S THE ENGINE BEHIND ALGORITHMS LIKE SHOR'S, WHICH COULD SHATTER MODERN ENCRYPTION BY FACTORING LARGE PRIMES IN MINUTES—WHAT TAKES CLASSICAL SUPERCOMPUTERS EONS.

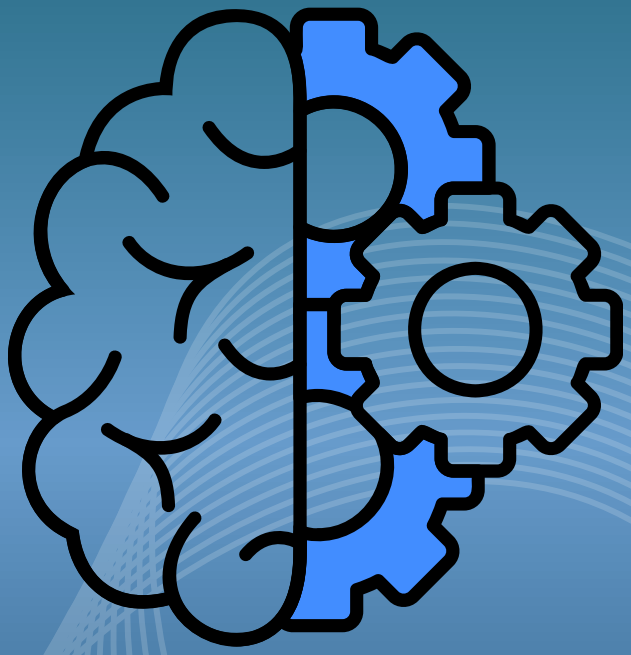


BUT PAUSE: WHAT IF YOUR DATA'S SECURITY HINGES ON THIS? QUANTUM APPLICATIONS EXTEND TO DRUG DISCOVERY, OPTIMIZING CLIMATE MODELS, AND SIMULATING MOLECULAR INTERACTIONS FOR NEW MATERIALS. YET CHALLENGES LOOM—DECOHERENCE ERODES FRAGILE QUANTUM STATES, DEMANDING CRYOGENIC ISOLATION AND ERROR CORRECTION.

AS WE STAND ON THIS PRECIPICE, ENVISION A WORLD WHERE AI EVOLVES VIA QUANTUM NEURAL NETWORKS. HOW MIGHT THIS REDEFINE YOUR FIELD? QUANTUM COMPUTING ISN'T JUST TECH; IT'S A PHILOSOPHICAL LEAP, BLURRING COMPUTATION WITH THE UNIVERSE'S FABRIC.

— VAISHNAVI TRIVEDI (CSE-B)

MLOPS: STREAMLINING MACHINE LEARNING FOR PRODUCTION



IN MLOPS, SHORT FOR MACHINE LEARNING OPERATIONS, IS A SET OF PRACTICES THAT COMBINES MACHINE LEARNING, DEVOPS, AND DATA ENGINEERING TO STREAMLINE AND SCALE THE DEPLOYMENT AND MAINTENANCE OF MACHINE LEARNING MODELS IN PRODUCTION. JUST LIKE DEVOPS TRANSFORMED SOFTWARE DEVELOPMENT BY AUTOMATING AND IMPROVING CI/CD PIPELINES, MLOPS AIMS TO BRING SIMILAR EFFICIENCIES TO THE ML LIFECYCLE.

MLOPS ADDRESSES CHALLENGES SUCH AS MODEL VERSIONING, REPRODUCIBILITY, MONITORING, MODEL DRIFT, AND CONTINUOUS TRAINING. IT ENSURES THAT MODELS AREN'T JUST BUILT BUT ALSO DEPLOYED, OBSERVED, UPDATED, AND RETIRED SYSTEMATICALLY. KEY COMPONENTS OF MLOPS INCLUDE AUTOMATED DATA PIPELINES, MODEL TRAINING PIPELINES, MODEL DEPLOYMENT TOOLS (E.G., DOCKER, KUBERNETES, OR CLOUD SERVICES), AND MONITORING SYSTEMS FOR PERFORMANCE AND FAIRNESS.

MLOPS ENCOURAGES COLLABORATION BETWEEN DATA SCIENTISTS, MACHINE LEARNING ENGINEERS, AND OPERATIONS TEAMS. IT ENFORCES AUTOMATION AND STANDARDIZATION OF WORKFLOWS, MAKING MACHINE LEARNING PROJECTS MORE ROBUST, SCALABLE, AND MAINTAINABLE.

IN ESSENCE, MLOPS IS NOT A SINGLE TOOL OR TECHNOLOGY BUT A CULTURE AND METHODOLOGY THAT SUPPORTS THE CONTINUOUS DELIVERY OF MACHINE LEARNING MODELS AT SCALE. AS AI BECOMES CORE TO BUSINESS PROCESSES, MLOPS IS INCREASINGLY ESSENTIAL FOR ENSURING RELIABILITY, COMPLIANCE, AND ROI FROM ML INVESTMENTS.

— HARSHILL KHERA (CSE-C)

DEVOPS

DEVOPS REPRESENTS A FUNDAMENTAL CULTURAL AND OPERATIONAL PHILOSOPHY THAT MERGES SOFTWARE DEVELOPMENT (DEV) AND IT OPERATIONS (OPS) INTO A COHESIVE, AUTOMATED LIFECYCLE AIMED AT RAPIDLY DELIVERING HIGH-QUALITY SOFTWARE. AT ITS CORE, IT IS A REJECTION OF THE TRADITIONAL SILOED MODEL, WHERE DEVELOPERS WROTE CODE AND THEN "THREW IT OVER THE WALL" FOR OPERATIONS TO DEPLOY AND MANAGE, A PROCESS OFTEN FRAUGHT WITH MISCOMMUNICATION, DELAYS, AND BLAME. INSTEAD, DEVOPS FOSTERS A CULTURE OF SHARED RESPONSIBILITY, COLLABORATION, AND CONTINUOUS FEEDBACK ACROSS THE ENTIRE APPLICATION LIFECYCLE, FROM CONCEPTION AND DEVELOPMENT THROUGH DEPLOYMENT AND MAINTENANCE. THIS CULTURAL SHIFT IS ENABLED BY A SET OF PRACTICES THAT HEAVILY EMPHASIZE AUTOMATION. CONTINUOUS INTEGRATION AND CONTINUOUS DELIVERY (CI/CD) FORM THE BACKBONE OF THIS AUTOMATION, ALLOWING TEAMS TO INTEGRATE CODE CHANGES FREQUENTLY INTO A SHARED REPOSITORY, WHERE AUTOMATED BUILDS AND TESTS RUN IMMEDIATELY TO DETECT BUGS, THEREBY IMPROVING SOFTWARE QUALITY AND REDUCING THE TIME TO FIX ISSUES. SUBSEQUENTLY, CONTINUOUS DELIVERY AUTOMATES THE DEPLOYMENT PROCESS, ENABLING CODE TO BE RELEASED TO PRODUCTION RELIABLY AND SAFELY AT ANY TIME. THIS IS OFTEN SUPPORTED BY INFRASTRUCTURE AS CODE (IAC), WHICH MANAGES AND PROVISIONS COMPUTING INFRASTRUCTURE THROUGH MACHINE-READABLE DEFINITION FILES, RATHER THAN PHYSICAL HARDWARE CONFIGURATION OR INTERACTIVE CONFIGURATION TOOLS, ENSURING ENVIRONMENTS ARE CONSISTENT, VERSION-CONTROLLED, AND EASILY REPRODUCIBLE. FURTHERMORE, DEVOPS RELIES ON CONTINUOUS MONITORING AND LOGGING OF APPLICATIONS AND INFRASTRUCTURE IN PRODUCTION, PROVIDING REAL-TIME FEEDBACK ON PERFORMANCE AND USER EXPERIENCE, WHICH IN TURN INFORMS FUTURE DEVELOPMENT CYCLES. BY INTEGRATING THESE PRACTICES—CULTURE, AUTOMATION, MEASUREMENT, AND SHARING—DEVOPS EMPOWERS ORGANIZATIONS TO INCREASE THEIR DEPLOYMENT FREQUENCY, ACHIEVE FASTER TIME TO MARKET, LOWER FAILURE RATES OF NEW RELEASES, AND SHORTEN THE LEAD TIME BETWEEN FIXES, ULTIMATELY ALIGNING IT OUTPUT CLOSELY WITH BUSINESS OBJECTIVES AND CUSTOMER NEEDS.

— JASMEET ANAND (CSE-B)

CLOUD COMPUTING

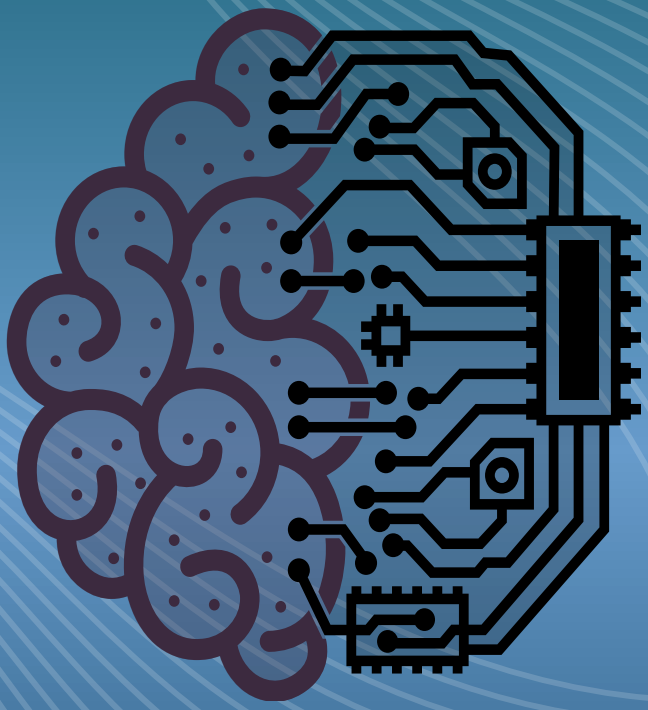
CLOUD COMPUTING REPRESENTS A FUNDAMENTAL PARADIGM SHIFT IN HOW ORGANIZATIONS ACCESS AND MANAGE COMPUTING RESOURCES, MOVING AWAY FROM OWNING AND MAINTAINING PHYSICAL DATA CENTERS AND SERVERS TOWARDS A MODEL OF ON-DEMAND, INTERNET-BASED ACCESS TO A SHARED POOL OF CONFIGURABLE RESOURCES LIKE SERVERS, STORAGE, DATABASES, NETWORKING, SOFTWARE, AND ANALYTICS. THIS MODEL, ESSENTIALLY THE DELIVERY OF COMPUTING SERVICES OVER THE INTERNET ("THE CLOUD"), ELIMINATES THE MASSIVE CAPITAL EXPENDITURE AND OPERATIONAL OVERHEAD OF TRADITIONAL IT INFRASTRUCTURE, CONVERTING IT INTO A VARIABLE, OPERATIONAL EXPENSE WHERE YOU PAY ONLY FOR WHAT YOU USE. THIS UTILITY-BASED CONSUMPTION IS ENABLED THROUGH SEVERAL CORE SERVICE MODELS: INFRASTRUCTURE AS A SERVICE (IAAS) PROVIDES THE FUNDAMENTAL BUILDING BLOCKS LIKE VIRTUAL MACHINES AND STORAGE, OFFERING THE HIGHEST LEVEL OF FLEXIBILITY AND MANAGEMENT CONTROL; PLATFORM AS A SERVICE (PAAS) REMOVES THE BURDEN OF MANAGING THE UNDERLYING INFRASTRUCTURE, ALLOWING DEVELOPERS TO FOCUS SOLELY ON DEPLOYING AND MANAGING THEIR APPLICATIONS WITHOUT WORRYING ABOUT OPERATING SYSTEMS, SOFTWARE UPDATES, OR HARDWARE PROVISIONING; AND SOFTWARE AS A SERVICE (SAAS) DELIVERS A COMPLETE, FULLY MANAGED SOFTWARE PRODUCT RUN AND MANAGED BY THE PROVIDER ON A SUBSCRIPTION BASIS, SUCH AS WEB-BASED EMAIL OR CUSTOMER RELATIONSHIP MANAGEMENT SYSTEMS. FURTHERMORE, CLOUD DEPLOYMENT MODELS, INCLUDING PUBLIC, PRIVATE, AND HYBRID CLOUDS, OFFER ORGANIZATIONS FLEXIBILITY IN BALANCING COST, SECURITY, AND COMPLIANCE NEEDS. THE PROFOUND BENEFITS OF THIS MODEL ARE EXTENSIVE, ENCOMPASSING UNPRECEDENTED SCALABILITY WHERE RESOURCES CAN BE ELASTICALLY PROVISIONED AND SCALED AUTOMATICALLY TO MEET FLUCTUATING DEMAND, ENHANCED RELIABILITY AND DISASTER RECOVERY THROUGH REDUNDANT SITES, AND ACCELERATED INNOVATION AS DEVELOPERS CAN RAPIDLY EXPERIMENT AND DEPLOY NEW APPLICATIONS WITHOUT LENGTHY PROCUREMENT PROCESSES. BY ABSTRACTING AWAY THE UNDIFFERENTIATED HEAVY LIFTING OF IT MANAGEMENT, CLOUD COMPUTING EMPOWERS BUSINESSES OF ALL SIZES TO BECOME MORE AGILE, REDUCE COSTS, AND FOCUS THEIR RESOURCES ON CORE BUSINESS DIFFERENTIATORS RATHER THAN ON MAINTAINING COMPLEX INFRASTRUCTURE.

— HARSHILL KHERA (CSE-C)

MACHINE LEARNING: THE FUTURE OF INTELLIGENT COMPUTING

IN THE EVOLVING LANDSCAPE OF COMPUTER SCIENCE, MACHINE LEARNING (ML) HAS EMERGED AS ONE OF THE MOST TRANSFORMATIVE DOMAINS. A SUBFIELD OF ARTIFICIAL INTELLIGENCE (AI), IT FOCUSES ON DEVELOPING ALGORITHMS THAT ENABLE SYSTEMS TO AUTOMATICALLY LEARN FROM DATA, RECOGNIZE PATTERNS, AND MAKE INFORMED DECISIONS WITH MINIMAL HUMAN INTERVENTION.

MACHINE LEARNING OPERATES PRIMARILY THROUGH THREE PARADIGMS: SUPERVISED, UNSUPERVISED, AND REINFORCEMENT LEARNING. SUPERVISED LEARNING UTILIZES LABELED DATASETS TO TRAIN PREDICTIVE MODELS, WHILE UNSUPERVISED LEARNING IDENTIFIES HIDDEN STRUCTURES WITHIN UNLABELED DATA. REINFORCEMENT LEARNING, DRIVEN BY THE CONCEPT OF REWARDS AND PENALTIES, ENABLES SYSTEMS TO MAKE SEQUENTIAL DECISIONS — FORMING THE FOUNDATION FOR AUTONOMOUS TECHNOLOGIES SUCH AS ROBOTICS AND SELF-DRIVING VEHICLES.



MODERN ML ADVANCEMENTS RELY ON NEURAL NETWORKS, ENSEMBLE MODELS, AND DEEP LEARNING ARCHITECTURES CAPABLE OF PROCESSING VAST AND COMPLEX DATASETS. WITH FRAMEWORKS LIKE TENSORFLOW, PYTORCH, AND SCIKIT-LEARN, THE DEVELOPMENT AND DEPLOYMENT OF ML APPLICATIONS HAVE BECOME FASTER AND MORE EFFICIENT.

THE IMPACT OF ML EXTENDS ACROSS VARIOUS SECTORS — FROM MEDICAL DIAGNOSTICS AND CYBERSECURITY TO FINANCE, NATURAL LANGUAGE PROCESSING, AND COMPUTER VISION. FOR COMPUTER SCIENCE STUDENTS, MASTERING ML OFFERS OPPORTUNITIES TO CONTRIBUTE TO CUTTING-EDGE RESEARCH, DATA-DRIVEN INNOVATION, AND INTELLIGENT SYSTEM DESIGN.

AS THE DIGITAL WORLD CONTINUES TO EVOLVE, MACHINE LEARNING STANDS AS THE DRIVING ENGINE OF INTELLIGENT COMPUTING — EMPOWERING MACHINES NOT ONLY TO PROCESS INFORMATION BUT TO UNDERSTAND, ADAPT, AND IMPROVE. IT REPRESENTS THE ESSENCE OF THE NEXT ERA IN COMPUTATIONAL INTELLIGENCE.

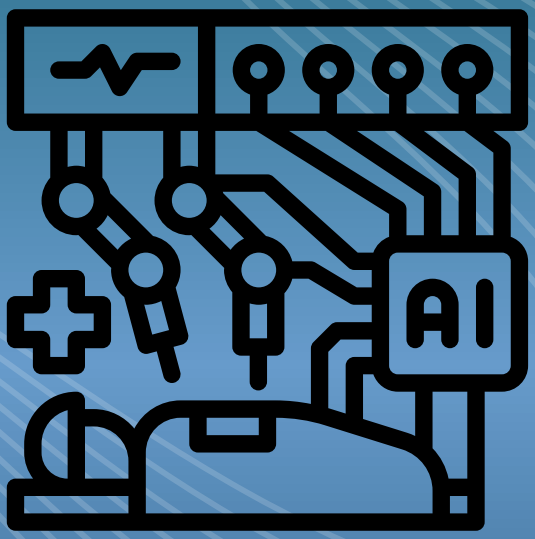
— DUSHYANT SHARMA (CSE-B)

AI IN HEALTHCARE

ARTIFICIAL INTELLIGENCE IN HEALTHCARE IS REVOLUTIONIZING THE WAY DISEASES ARE PREDICTED, DIAGNOSED, AND TREATED. AI SYSTEMS CAN PROCESS AND ANALYZE ENORMOUS AMOUNTS OF MEDICAL DATA—SUCH AS PATIENT RECORDS, GENETIC INFORMATION, AND DIAGNOSTIC IMAGES—MUCH FASTER AND MORE ACCURATELY THAN HUMANS. ONE OF THE MOST IMPORTANT APPLICATIONS IS DISEASE PREDICTION, WHERE AI MODELS DETECT PATTERNS IN HEALTH DATA TO FORECAST CONDITIONS LIKE HEART DISEASE, DIABETES, OR CANCER BEFORE SYMPTOMS APPEAR. THIS ALLOWS FOR EARLY DIAGNOSIS, PREVENTIVE CARE, AND IMPROVED PATIENT OUTCOMES.

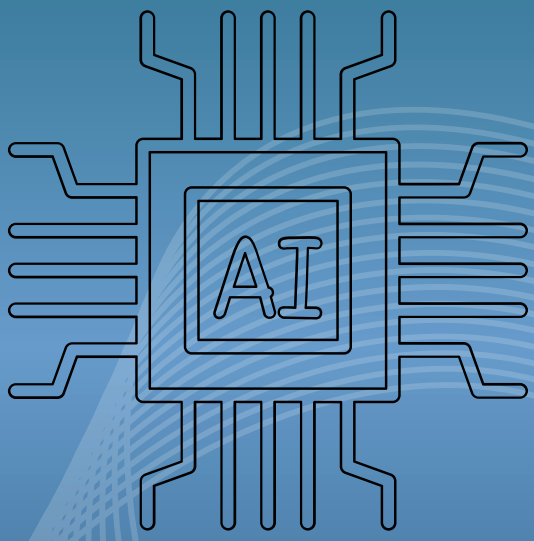
AI IS ALSO TRANSFORMING MEDICAL IMAGING BY ASSISTING DOCTORS IN ANALYZING X-RAYS, MRIS, AND CT SCANS. DEEP LEARNING ALGORITHMS CAN IDENTIFY TUMORS, FRACTURES, OR INFECTIONS WITH A LEVEL OF PRECISION THAT OFTEN MATCHES OR EVEN EXCEEDS HUMAN EXPERTS. IN DRUG DISCOVERY, AI ACCELERATES THE DEVELOPMENT OF NEW MEDICINES BY SIMULATING HOW CHEMICAL COMPOUNDS MIGHT INTERACT WITH THE BODY, SAVING YEARS OF RESEARCH AND REDUCING COSTS.

ADDITIONALLY, AI-POWERED WEARABLE DEVICES MONITOR VITAL SIGNS LIKE HEART RATE, OXYGEN LEVELS, AND SLEEP PATTERNS, GIVING PATIENTS GREATER CONTROL OVER THEIR HEALTH. DESPITE CHALLENGES RELATED TO DATA PRIVACY, SECURITY, AND ETHICAL USE, AI IN HEALTHCARE CONTINUES TO EVOLVE—OFFERING SMARTER, FASTER, AND MORE PERSONALIZED MEDICAL CARE FOR PEOPLE AROUND THE WORLD.



— JASMEET ANAND (CSE-B)

EXPLAINABLE AI (XAI)



EXPLAINABLE ARTIFICIAL INTELLIGENCE, OR XAI, IS A BRANCH OF AI FOCUSED ON MAKING MACHINE DECISIONS CLEAR AND UNDERSTANDABLE TO HUMANS. TRADITIONAL AI SYSTEMS, ESPECIALLY THOSE BASED ON DEEP LEARNING, OFTEN WORK LIKE "BLACK BOXES." THEY CAN MAKE ACCURATE PREDICTIONS OR DECISIONS, BUT PEOPLE CANNOT EASILY SEE HOW OR WHY THOSE RESULTS WERE PRODUCED. EXPLAINABLE AI AIMS TO SOLVE THIS PROBLEM BY PROVIDING REASONING OR EVIDENCE BEHIND EVERY AI DECISION, ALLOWING USERS TO TRUST AND VERIFY THE SYSTEM'S BEHAVIOR.

IN SIMPLE TERMS, XAI HELPS ANSWER QUESTIONS SUCH AS "WHY DID THE AI MAKE THIS CHOICE?" OR "WHAT DATA INFLUENCED THIS RESULT?" FOR EXAMPLE, IN HEALTHCARE, IF AN AI PREDICTS THAT A PATIENT MIGHT HAVE A CERTAIN DISEASE, XAI CAN HIGHLIGHT WHICH SYMPTOMS, SCANS, OR TEST RESULTS LED TO THAT CONCLUSION. IN FINANCE, IF AN AI DENIES A LOAN APPLICATION, XAI CAN EXPLAIN THAT THE DECISION WAS BASED ON CREDIT SCORE, INCOME, OR OTHER MEASURABLE FACTORS.

EXPLAINABLE AI IS IMPORTANT BECAUSE IT BUILDS TRANSPARENCY, FAIRNESS, AND ACCOUNTABILITY IN AI SYSTEMS. WITHOUT EXPLANATIONS, USERS MAY HESITATE TO RELY ON AI FOR CRITICAL DECISIONS IN AREAS LIKE LAW, MEDICINE, OR SECURITY. XAI ALSO HELPS DEVELOPERS DETECT ERRORS OR BIASES IN THEIR MODELS, LEADING TO MORE ETHICAL AND ACCURATE SYSTEMS.

AS AI BECOMES A BIGGER PART OF DAILY LIFE, THE DEMAND FOR EXPLAINABILITY WILL CONTINUE TO GROW. THE GOAL OF XAI IS TO MAKE INTELLIGENT SYSTEMS NOT ONLY POWERFUL BUT ALSO UNDERSTANDABLE, TRUSTWORTHY, AND ALIGNED WITH HUMAN VALUES.

— TIYA CHAUDHARY (CSE-B)

“ON TWO OCCASIONS I HAVE BEEN ASKED, ‘PRAY, MR. BABBAGE, IF YOU PUT INTO THE MACHINE WRONG FIGURES, WILL THE RIGHT ANSWERS COME OUT?’ I AM NOT ABLE RIGHTLY TO APPREHEND THE KIND OF CONFUSION OF IDEAS THAT COULD PROVOKE SUCH A QUESTION.”

-CHARLES BABBAGE

FATHER OF COMPUTERS

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(ISSUE 9)

The Wall Magazine of

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Computing Power

The evolution of computing Power has been a transformative journey, from room sized mainframes to the current era of Quantum computing. Key Milestones include the advent of electronic computers, the rise of microprocessor given by Moore's Law, and the utilization of parallel processing in super computers. Graphics Processing Unit (GPU) has played crucial role in accelerated computing, particularly in AI & deep learning. The 21st century introduces the promise of quantum computing with companies like IBM and google actively developing practical quantum computers. Despite Progress, challenges such as Power consumption persist. Overcoming these challenges is vital for continued innovation in computing Power.

Name : K. Riyasat Ali
Class : IT 'B' 2nd Year
Roll no: 08020803172

GENERATIVE AI :

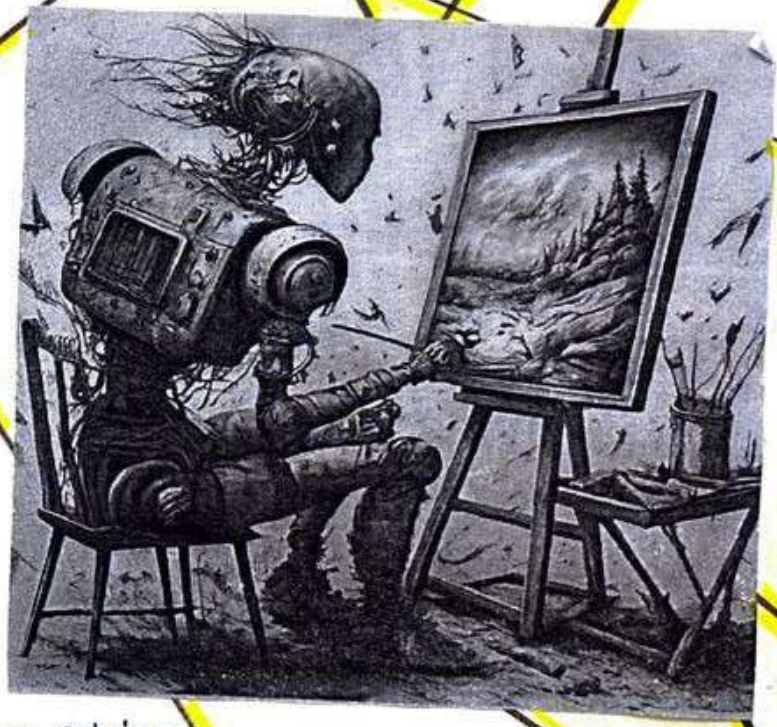
Where creativity meets technology

WHAT IS IT?

- Generative AI uses algorithm to create new content, like text, images, music and more.
- It learns from existing data and patterns to do so.

HOW DOES IT WORK?

- Different techniques are used like :
  - Neural networks trained on massive datasets.
  - Genetic networks trained on mimicking natural selection.



USES?

- Art and design : Perfect example is the picture you see on the right, it was created by google's generative AI - Gemini.
- Science & Engineering
- Business and Marketing : Predicting customer behaviour.

The Future of AI :

- Generative AI holds immense potential for innovation and problem solving across various fields.
- Responsible development and ethical considerations are crucial alongside its advancements.

— AMRITA, 2nd Year, IT-A, 164

MISHITA
IT-B
2021-25
ROLL NO. - 079

Topic ..... Date.....

Robotic Process Automation

Robotic Process Automation (RPA) is a technology that uses software robots (or bots) to automate repititive tasks typically performed by humans within business processes. These tasks can include data entry, data extraction, form filling, report generation. Key components of RPA includes:

1.) Bot Creation Tools : RPA platforms provides tools for creating, configuring, and managing software robots. These generally includes GUI's.

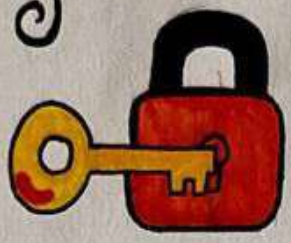
2.) Scripting or Coding : While many RPA tools often offer a no-code or low code approach to automation, more advanced users can write scrips or code to customize.

3.) Rules Engine : RPA platform often includes a rules engine or decision-making capability.

4.) Monitoring and analysis : RPA platforms provide monitoring and analytics tools to track the performance of bots, identify bottlenecks, and optimization of automation.

5.) Integration capabilities :- RPA bots can integrate with a wide range of applications and systems, including legacy systems, API's and more. This allows seemless automation across diverse environments.

Designer X



Unlocking Efficiency: The Rise of Robotic Process Automation

In the ever-evolving landscape of technology, one innovation stands out, revolutionizing how business operate - Robotic Process Automation Picture a digital assistant seamlessly navigating through complex tasks, mimicking human interactions with precision. That's the essence of RPA, a technology marvel designed to liberate business from the shackles of repetitive, rule-bound processes.

As its core, RAA employs software robots, akin to digital maestros, to automate mundane tasks that once demanded valuable human hours. Imagine the tedium of data entry, form filling or invoice processing swiftly handled by these tireless bots. They don't replace human ingenuity but amplify it by liberating employees to focus on more strategic and creative endeavors.

Unlike conventional automation methods, RPA gracefully sidesteps the need for a major IT overhaul. It seamlessly integrates with existing systems, effortlessly gliding through user interface. The result? A harmonious blend of legacy systems and modern efficiency.

The magic lies in the rules-based logic governing these bots. They meticulously follow predefined rules, transforming structed tasks into a symphony of streamlined processes. As organ-isations scale their automation endeavors, RPA responds nimbly, deploying additional bots to handle burgeoning workloads without a hefty price tag.

TAKSHU CHOUHAN
IT-B
2021-25
81

Computing Power

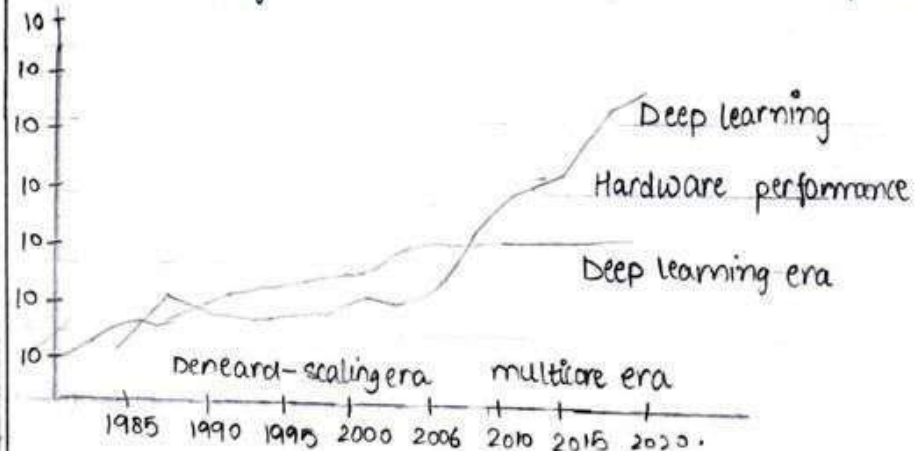
Computing power is a crucial aspect of modern technology. It determines how fast and efficiency a computer can perform tasks. The power of a computer is influenced by factors such as the processor speed, memory, capacity, and storage capabilities.

The processor, also known as the central processing unit(CPU), is like the brain of a computer. It carries out instructions and performs calculations. A faster processor can handle more tasks in a shorter amount of time.

Memory often referred to as RAM (Random access memory), is where the computer stores data that it needs to access quickly. More memory allows for smoother multitasking and faster data retrieval.

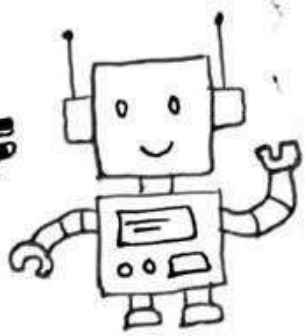
In recent years, advancements in technology have led to the development of powerful computers, such as supercomputers and quantum computers.

As technology continues to evolve, computing power will likely increase



NAME - ROSHNI
YEAR - 2nd year
BRANCH - IT-B
ROLL NO. - 06620803122

DISCOVER THE POWER OF GENERATIVE AI



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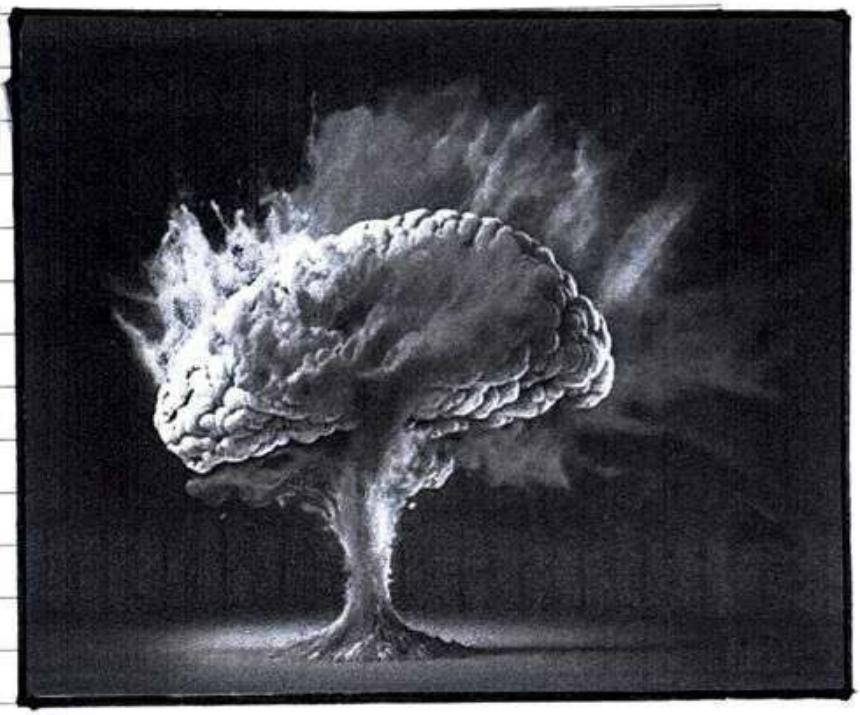
Date

ARE YOU READY TO EXPLORE?



Generative AI is a subset of AI that focuses on enabling machines to generate content autonomously, mimicking human - like creative processes.

Techniques:

- Neural Networks: Generative models like GANs and VAEs play a key role in producing diverse and high quality outputs.

- Reinforcement learning: Training models to optimize performance over time through trial and error.

Generative AI is reshaping the landscape of creativity, offering unprecedented possibilities and sparking a new era of innovation.

- UDIT JAIN, IT-A, 2nd Year

Topic AI in Engineering Design. Date

Title: The Role of AI in Engineering Design.

The Role of AI in Engineering Design:-

Artificial Intelligence (AI) is rapidly transforming engineering design, making processes smarter, faster, and more creative than ever before.

Key Roles of AI in Engineering Designs:-

- Accelerated Innovation: AI-powered tools can analyze massive datasets and generate optimized design alternatives in seconds, enabling engineers to explore more ideas and reach innovation solutions quickly.

- Generative Design: AI algorithms autonomously create design options based on specific requirements, allowing engineerings to discover novel and efficient solutions that might be missed by traditional methods.

- Optimization: AI identifies the best design choices by balancing factors like performance, cost, and sustainability, leading to smarter, more efficient products.

Name - Aditya Paul
Roll no. - 083
Enrollment No. - 08320803124
Branch - IT B

ECLET

COMPUTING POWER

Computing Power is a broad term that refers to the ability of a computing system to perform tasks, process data and execute instructions. It's a critical aspect of technology advancement, influencing everything from consumer electronics to scientific research and industrial applications. Computing power, often measured in terms of processing speed.

Importance of computing power

Performance: Computing power directly impacts the speed and efficiency of computing tasks. Higher computing power enables faster data processing, complex calculations, and quicker response times.

Innovation: Advances in computing power drive innovation in various fields, including artificial intelligence, data analytics, scientific research, and gaming.

Productivity: Improved computing power enhances productivity by reducing processing times, enabling real-time data analysis, and supporting multitasking capabilities.

Competitive Advantage: Organizations and industries can gain a competitive edge by leveraging high computing power for faster decision-making, better insights, and improved customer experiences.

Future Trends and Implications

Quantum Computing: Quantum computing holds the potential to revolutionize computing power by leveraging quantum phenomena such as superposition and entanglement to perform computations at unprecedented speed.

AI and Machine Learning: Continued advancements in artificial intelligence and machine learning algorithms, coupled with specialized hardware like AI accelerators, will further enhance computing power for tasks such as natural language processing, computing vision, and autonomous systems.

Edge Computing: Edge computing distributes computing power closer to the data source, reducing latency and enabling real time processing for applications such as IoT devices, autonomous vehicles and augumented reality.

Computing Power is a driving force behind technological progress, enabling innovation improving productivity, and transforming industries. As hardware and software technologies evolve, and new paradigms such as quantum computing emerge, the potential for further advances in computing power is vast, with profound implications for society, economy, and human progress. Balancing the pursuit of greater computing power with ethical and societal considerations will be crucial in shaping the future of technology.

Tamanna Thakur (093) IT-B 2nd yr

MISHITA
IT-B

Topic ..... Date..... 2021-25

ROLLNO :- 079.

Metaverse

The term "metaverse" refers to a collective virtual shared space, created by the convergence of virtually enhanced physical reality and physically persistent virtual reality. The concept has gained significant attention recently, especially with advancements in virtual reality (VR), augmented reality (AR), and online gaming.

In the metaverse, users can socialize, work, play games, create content, buy and sell goods and services, and engage in various activities just like in the physical world, but within a digital environment. Companies like Meta (formely Facebook), Epic Games (with Fortnite), Roblox Corporation (Roblox), and various other techfirms are heavily investing in the development of the metaverse.

Some common features of metaverse are:

1.) Virtual Worlds: The metaverse consists of multiple interconnected virtual worlds or environments.

2.) Avatar Creation: Users can create and customize their digital avatars to represent themselves.

3.) Social Interaction: Users can communicate with each other in real-time.

4.) Education and Training :- Metaverse can be used for educational purposes, such as virtual classrooms, training simulations etc.

Topic _____ Date __/__/____

Smart City Infrastructure

Smart city infrastructure is all about blending technology with urban planning to improve the quality of life. Imagine cities where traffic lights adjust in real time, waste bins signal when they're full, and energy is conserved with smart grids. These aren't dreams - They're happening now.

From smart roads to digital governance everything is designed to make cities cleaner, safer, and more efficient. It's not just about wifi in public parks. It's about using data to reduces pollution, manage traffic and create sustainable communities

"It's not just about technology - it's about building a better future."

Smart cities are the future and the future is already here - intelligent, connected and human - friendly.

UDAY SHARMA
IT-B, 1st year
105

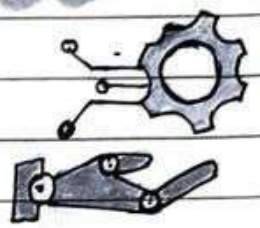
Srishti Pandey
IT-B 3rd Year

Title

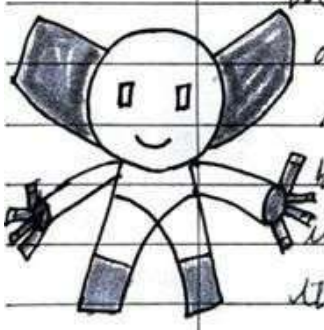
Date

Page

ROBOTIC PROCESS AUTOMATION



- Robotic process automation (RPA) is a software technology that makes it easy to build deploy and manage software robots that emulate humans actions interacting with digital systems and software. Just like people, software robots can do things like understand what's on a screen, complete the right keystrokes, navigate systems, identify and extract data, and perform a wide range of defined actions. But software robots can do it faster and more consistently than people, without the need to get up and stretch or to take a coffee break. Robotic process automation streamlines workflows, which makes organizations more profitable, flexible and responsive. It also increases employee satisfaction, engagement, and productivity by removing mundane tasks from their workdays. It's ideal for automating workflows that involve legacy systems that lack APIs virtual desktop infrastructures (VDIs) or database access.



VISION

To emerge as a centre of excellence producing globally competent and morally sound professionals in the field of Information Technology who will practice commitment to their profession and dedicate themselves to the service of mankind.

MISSION

To develop state-of-art laboratories providing relevant practical inputs to students. To provide strong knowledge base to students in the area of Information Technology and to train them as per the requirement of industries and research organizations. To facilitate institute industry interaction to the benefit of stake holders and motivate teachers for the continuous improvement of their academic standards.

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(Issue 10)

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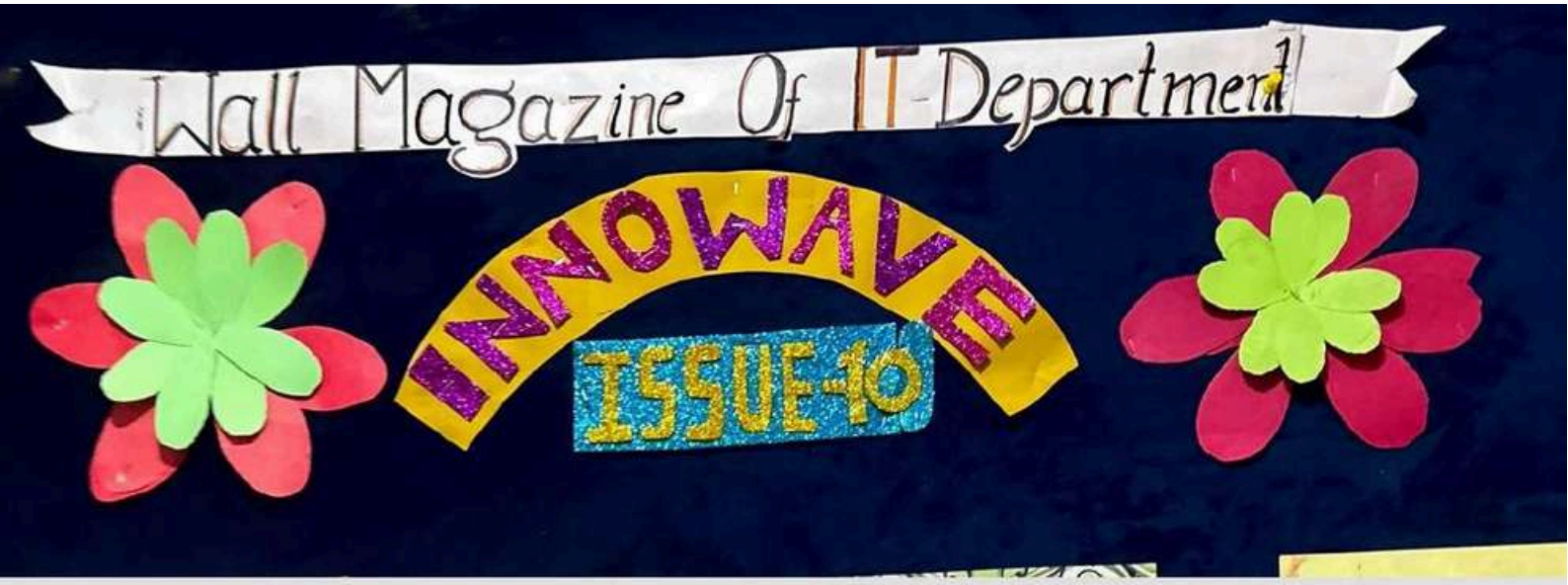
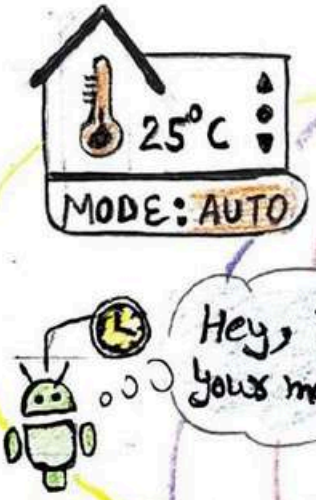

Wall Magazine Of IT-Department
INNOWAVE
ISSUE-10

Smartes DEVICES

-Making life Easies-

like Smart watches are changing the way we live. these gadgets Connect to internet allowing them to do more than just their basic functions.

What they Do



they Can do things Automaticly like adjusting thermostat or reminding you to take medication. they learn from your behavior.

Why they matter

they Save time & Energy by handling tasks for us they also open up new Possiblities to making our homes more Secure

Challenges Ahead

Privacy & security are Conserns as they Collect and share Data It is important to Ensure they're used Respon-sibly

VIRTUAL REALITY

Virtual reality immerses users in digital environment through specialized headsets & controllers. It simulates physical presence in imaginary or recreated worlds, offering interactive experience in gaming, simulations, trainings & entertainment. VR technology tracks head movements & adjust the virtual environment, providing a sense of presence & immersion. Its applications extend to education, healthcare & architecture, promising transformative ways to learn, collaborate, & experience content. VR continues to evolve, promising even more realistic & engaging experiences in various domains.

AUGMENTED REALITY

Augmented Reality overlays digital content onto the real world, enhancing our perception of reality through devices like smartphones or smart glasses. It integrates virtual elements seamlessly with the physical environment, offering users additional information, interactive experiences, or digital enhancements. AR finds applications in navigation, retail, education and industrial design, providing real-time & immersive interactions. By blending virtual & physical worlds, AR transforms how we learn, shop, navigate & interact, promising innovative solutions and enriched experiences.

Saurabh Kumar
IT-C 3rd 4th Year Passout

Building Smarter Cities

India's vision v/s China's Execution

- Smart cities are reshaping the way we live, work, and interact with urban environments. While both India and China have recognised the need for future ready urban centres, their approaches, diverge significantly. India emphasizes inclusivity, democratic governance, and citizen engagement, while China pursues a top-down, technology first strategy driven by rapid execution.

- **India's Smart city vision:-** India's Smart Cities mission, launched in 2015, was designed to transform 100 cities into citizen-friendly and sustainable urban centres. The mission is guided by 4 core pillars - E-governance & citizen service, urban mobility, Sustainable infrastructure, Smart solutions for basic services.

- **China's Execution-led approach:-** China has created several model smart cities, including Shenzhen, Hangzhou and Xiong'an. These cities show-case large scale application of - AI - driven surveillance and traffic systems, IoT-based smart grids, data-driven urban planning, Integrated transportation ecosystems.

"Speed is nothing without inclusion".

RIYA GOEL (062)

Drone Technology Applications

Drones, or Unmanned Aerial Vehicles (UAVs), have become a game-changer across many Industries. Initially developed for military use, drones are now widely used in civilian and commercial sectors due to their flexibility, efficiency, and ability to access hard-to-reach areas.

- Agriculture :- Drones help farmers monitor crops, spray fertilizers, assess irrigation, and map fields. This leads to better yield and efficient resource use
- Delivery and logistics :- Companies are testing drone deliveries for online orders and medical supplies. Drones are fast, reduces human effort, and can reach remote locations easily & quickly.
- Surveillance and Security :- Used for crowd control, border patrol, disaster rescue, and property monitoring, drones offer real-time visuals and enhance safety.
- Environment Monitoring :- They help track wildlife, defect deforestation, monitor coastal erosion, and measure pollution without disturbing nature.

Conclusion - Drone technology is evolving fast, offer smarter solutions across various fields. With continued innovation, drones will play an even bigger role in shaping our future

Disha Rathore IT-B

DRONES:
ENGINEERING's EYE IN THE SKY

Drones or unmanned aerial vehicles are much more than flying gadgets. They bring together lightweight materials, brushless motors, GPS-guided autopilots, and modular sensors to carry data and payload into places where traditional aviation struggles. This mix of mechanical design, electronics and software makes them perfect examples of how different engineering works in harmony.

In the hands of geospatial engineers, fixed wing and multi rotor drones equipped with RTK-GNSS, high resolution cameras. and Lidar scanners can map land with astonishing accuracy They create detailed orthomosaics and 3D terrain models that feed into construction planning, earthwork measurements and BIM systems. Civil and electrical engineers are using rotorcraft with thermal cameras to check bridges, substations.

Agriculture is another field taking flight. Multispectral sensors mounted on drones measure NDVI, revealing crop health and guiding targetted irrigation or fertiliser application. The result :- higher yeild with fewer resources. In disaster zones, long range drones assist safety team with search and rescue mission, sending live video and heat signatures that spot survivors faster than ground crews can. Environmental teams use fleets to monitor forest fires, map floods, and track emission in real time.

Even cities are starting to see drones as part of their future. Researchers are combining UAV's with on board AI to monitor traffic, measure air quality, and carry out last mile deliverics.

Behind every successful mission lies a foundation of solid engineering: stable flight control systems blending pid loops and inertial navigation, precise speed controllers, and navigation backup that keep drones flying in rough wheather or gps dead zones. For engineering student diving into this isn't just academic. It's a path of innovation.

VIRTUAL REALITY

Engineering the illusion of presence

Virtual Reality is a convergence of real-time rendering, human perception science, and spatial computing designed to create a convincing sense of "being there". At its core, VR revolves around reducing motion-to-photon latency to ~20 ms, because even the slightest lag between head & visual update can cause cybersickness. Hence, modern VR headsets integrate 6 DoF tracking with IMUs, IR sensors, & computer vision algorithms to map user motion in 3-D space.

To optimise performance, high end VR employs foveated rendering, where eye tracking hardware tells the GPU to render sharp detail only where the user is looking, drastically reducing computational load. Also, asynchronous timewarp & reprojection techniques re-use & adjust previous frames to maintain the illusion of smooth motion when hardware can't keep up.

But VR's challenge isn't purely technical—its neurological. Achieving "presence" requires harmonising visual, auditory & haptic feedback in a way that the brain accepts as natural. Failures here create perceptual dissonance, breaking immersion instantly. As research pushes toward light-field displays & neural interface integration, the future of VR will depend less on increasing pixel density & more on perfecting conversation between human senses & synthetic worlds.

Topic AI in Engeneering Design Date

AI in Engeneering Design

Title: The Role of AI in Engeneering Design

Artificial Intelligence (AI) is rapidly transforming engeneering design, making processes smarter, faster and more innovative. With tools like generative design, AI can quickly create and evaluate thousands of design option based on specific goals and constraints - offering innovative solutions engineers may not have considered.

Machine Learning helps analyze data, predict performance, and reduce design errors early in the process. AI also supports sustainability by optimizing material use and improving energy efficiency.

Beyond automation, AI acts as a creative partner, enhancing decision-making and accelerating innovation. While challenges like data quality and integrating still exist, the impact of AI is clear - its transforming engeneering into a more intelligent, adaptive and forward thinking discipline.

Name - Manik Jain
Class - IT-B
Roll No - 77

Topic VIRTUAL REALITY Date

Virtual Reality (VR) isn't just a gaming gimmick anymore. It's an $80 billion industry changing human-tech interaction. Future is wearing a VR Headset.

- Gaming is just the Start

The VR gaming market hits $12 Billion in 2023. It isn't for just gaming, it's for education, healthcare, design etc.

- Rewiring Brains in Therapy

- VR therapy is increasingly use in treatment of PTSD, Anxiety, phobiasetc.
- One study shows a 56% drop in PTSD symptoms using VR Therapy.
- Stroke patients now use VR to retain muscles and movement.

- VR in Surgery

Surgeons using VR simulation are 6x more accurate. No risk needed.

- Building Cities Before Bricks are Laid

Architects and engineers use VR to walk through designs before they're built. One VR-Led correction in a Dubai Skyscrapper saved $2 million.

- Classroom Without Bordess

Students can now visit Mars, dissect frog, or explore ancient Rome - all from their desks. VR makes learning 3x more engaging and 2x more memorable.

Final Glitch in the Matrix

VR is no longer about escaping reality. It's about upgrading it. Whether it's saving lives, building dreams, or rewriting classrooms -

"VR isn't Virtual anymore. It's Vital."

Submitted by: Subhan Saifi (IT-B 062)
Sirjanjeet Singh (IT-B 048)

Anand Craft

drone tech & what it does

DRONES ARE REMOTELY PILOTED OR AUTONOMOUS AIRCRAFT DESIGNED TO OPERATELY REMOTELY WITHOUT ANY PILOT. THEY ARE ALSO KNOWN AS UNMANNED AERIAL VEHICLE.

Drones can be used for:

- POST DISASTER RESCUE
- TRAFFIC MONITORING
- ENVIROMENTAL PROTECTION
- FOREST FIRE PROTECTION

ALGORITHMS ARE USED TO NAVIGATE DRONES FROM OBSTACLES AND AVOID COLLISIONS WITH REAL TIME OBJECTS.

ISHITA SINGH & ISHITA SABARWAL IT-A 4th Sem

SMART CITY INFRASTRUCTURE

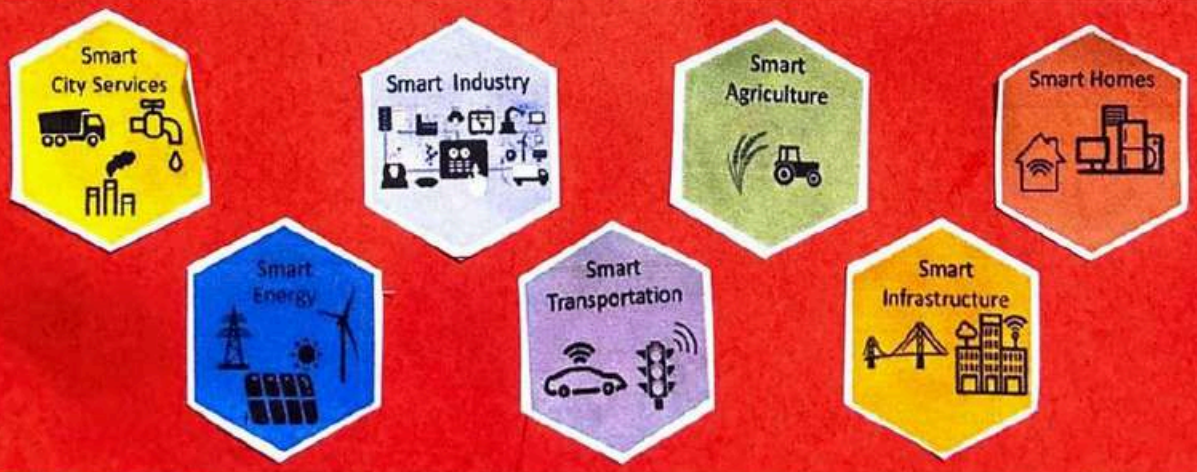
Smart cities use technology like IOT and AI to imprae urban life. They help manage resources efficiently and reduce problems life traffic and pollution.

- URBAN SAFETY : AI surveillance detects unusual activities ; disaster alerts imprae response time. IOT Sensors monitor the environmental hazards like gas leaks, fires etc.

- SMART WASTE MANAGEMENT : Sensor- based bins alert when full, It reduces landfill overflow and lowers pollution. Optimised routes cut fuel use.

- SUSTAINABLE ENERGY : Smart grids balance demand and supply, integrating solar and wind energy. We get increased reliability and resilience of energy supply.

- INTELLIGENT TRANSPORTATION : A-I driven traffic lights reduce congestion, smart packing guides drivers to free spots. It improves road safety and reduced accidents.



DIKSHA HEER - IT-B

Topic: AR-VR-MR ARTICLE Date: 16/4/25 Page

ROBOTICS PROCESS AUTOMATION

Robotic Process Automation (RPA) uses software bots to automate repetitive, rule-based tasks like data entry, invoice processing, and report generation. These bots mimic human actions, working faster and error-free.

- It saves time and costs by reducing manual work.
- It Boosts accuracy. It works 24/7 without breaks.

Popular RPA Tools :- UiPath (User-friendly, great for beginners, Blue Prism (secure, enterprise-focused), Automation Anywhere (Cloud-based, scalable).

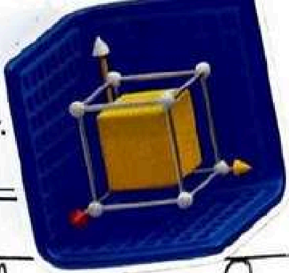
Common Uses :- Finance :- Invoice processing, payroll, HR :- Employee onboarding, attendance tracking., Customer Support :- Automates responses.

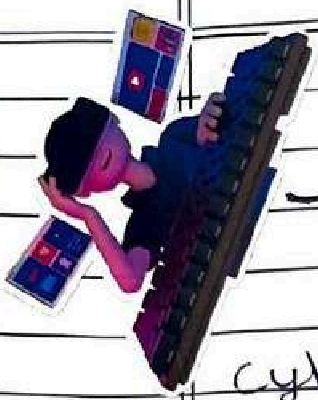
Conclusions :- It transforms business efficiency by automating repetitive tasks with precision, speed and cost savings.

Name :- ADITYA KUMAR TIWARI
Roll no :- 09820803124
Class :- IT-B (1 Year)

Teacher's Signature

Topic Article   Date 16/4/25   Page No. 1

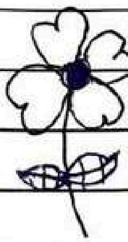




Cyber Security

cyber security refers to the Protection of electronic gadgets like computers and smatphones from hacking and stealing data through some malicious activities. It is always harmful to the user.

Seeing the increasing use of electronics gadgets now a day, everyone needs to have proper cyber security.



Cyber security is important for those People who use electronic gadgets regularly and frequently. We usually keep our important data and document in these gadgets, so keeping them secure is very important.

conclusion:- Cyber security affects individuals, buisnesses, and government. from Online banking to social media, every digital activity needs Protection.

scan me

NAME = RONAK SINGH
CLASS, ROLL NO. = IT-'B', 099

Teacher's Signature

FRAUD

Vision

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Mission

To develop state-of-art laboratories providing relevant practical inputs to students. To provide strong knowledge base to students in the area of Information Technology and to train them as per the requirement of industries and research organizations. To facilitate institute industry interaction to the benefit of stake holders and motivate teachers for the continuous improvement of their academic standards.

BPIT

Bhagwan Parshuram Institute of Technology

JANUARY-JULY 2025

SUMMER REFLECTION

Computer Science and Engineering

Department

NEWSLETTER

Bhagwan Parshuram Institute of Technology

JAN 2025 TO JULY 2025

COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

Department's Vision

To emerge as a center of excellence, in the field of Computer Science and Engineering & Research, by grooming our pupils with strong conceptual knowledge to enable them as a professional and researcher for the benefit of society.

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3. To enable the students to be technically competent among their peers and serve as ethical software professionals.
4. To facilitate industry interaction exposure for the benefit of the stakeholders.
5. To motivate faculties and students for continuous improvement of their academic standards with qualitative research.

Program Educational Ojectives (PEO)

1. To promulgate strong foundation in Applied Sciences, Mathematics and Engineering fundamentals.
2. To be able to comprehend, analyze and map the computational logics with real time problems.
3. To provide extensive knowledge to design and build products with innovative solutions for problems using their skills in Computer Science and Engineering and other related domains.
4. To inculcate attributes such as self-confidence, ethics, teamwork, leadership skills, communication skills for life-long learning.
5. To succeed with excellence as computer professionals or successful entrepreneurs or pursue higher studies through quality education.

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3. To exhibit the ability to ethically excel in life-long professional career, higher studies and entrepreneurship with good communication, writing and leadership skills for the benefit of society

PILLARS OF BPIT

PATRON

Shri Vinod Vats (Chairman)
Padma Shree Shri Surender Sharma (Vice-President)
Shri Ram Babu Sharma (General Secretary)
Shri Shambhu Sharma (Secretary)
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STUDENT EDITORS

Paritosh Gupta(1st year , CSE)
Tiya Chaudhary(1st year , CSE)

DEPARTMENT & ITS SOCIETIES' EVENTS

The Computer Science & Engineering department offers quality education with a focus on innovation, problem-solving, and research. With experienced faculty from diverse academic backgrounds, it fosters a dynamic learning environment. The department also supports career development through strong industry and government collaborations.

Namespace BPIT

NAMESPACE BPIT is a dynamic technical society of Bhagwan Parshuram Institute of Technology and a part of The NAMESPACE Community. It fosters peer support, tech awareness, and skill development through webinars, contests, and events. With a strong focus on coding and collaboration, it provides a platform for continuous learning and interaction among students.

IEEE BPIT

They conducted:

- Webinar: introduction to Robotics.
- Web & React: Kickstarting Web development session.
- Bot making bootcamp.
- Session on OpenAi's deep research.
- Introduction to drones.

GDSC BPIT

They conducted:

- Introduction to GenAi.
- Introduction to GSoC, solution challenge guide, build with Ai sessions for solution challenge.
- AR workshop

#DEFINE

Hash Define, formed in 2019, is a student-led initiative focused on building technical skills and providing free exposure to the tech world. Through seminars, webinars, and peer learning, the team empowers budding engineers beyond college boundaries. Their mission is to bridge gaps between juniors and seniors, eliminate learning obstacles, and foster a strong, inclusive tech community.

ANVESHAN

They conducted:

- Tech starter- Web Development session
- Tech starter - C++ session
- Alumni meetup : 'code to career'

"If you want to walk fast, walk alone. But if you want to walk far, walk together."

— Ratan Tata

HIGHLIGHTS OF THE DEPARTMENT

Achievements of Students

- **Pavneet Singh** has been awarded with **Gold Medal** at the 17th Convocation of GGSIPU University held on 11 April 2025.
- Gauransh Goel of CSE A (2022) achieved First position for participating in Hackathon (NS Hacks) organized by NAMESPACE BPIT on 13 January 2025.
- Harsh Chhabra of CSE B (2023) secured First position by participating in Hackathon (Brand It) organized by DTU on 16 February 2025.
- Mokshit Kaushik (3rd year, CSE A) of Batch 2023, secured 2nd Prize in Poster Making Competition organized by NSS, BPIT on 2 February 2025.
- Ayush Tiwari (3rd year, CSE A) of Batch 2023, won 2nd Prize at an inter-institute CODENHEIMER 2.0 CONTEST organized by HASHDEFINE at BPIT on 15 February 2025.
- Lavanya Varshney (3rd year, CSE A) of Batch 2023, secured 3rd position in Codezen Hackathon organized by Guru Tegh Bahadur 4th Centenary College on 28 February 2025.
- Ayushman Joshi of CSE B (2022) secured First position for participating in Prakaran (VIPS) and Saarang (MSCW) on 4 April 2025.
- Vishwas Shukla (2nd year, CSE B) of Batch 2024, won 2nd Prize in a Cricket Tournament organized by Hierank Business School, Noida on 7 April 2025.
- Ayush Tiwari and Shivam Singh Mahar of CSE B (2023) got First Prize for participating in the Quiz (Tech Blackout) organized by Kronos at Shaheed Sukhdev College of Business Studies on 17 April 2025.

Achievements of Faculty

- Dr. Nitish Pathak successfully participated as SESSION CHAIR for 'International Conference on Computational Intelligence and Information Retrieval' organized by 'Sister Nivedita University' from 24-25 April 2025.
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  - Dr. BHAWNA SURI : The Joy of Computing using Python
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  - Dr. Shweta Taneja : The Joy of Computing using Python
  - Dr. Palak : The Joy of Computing using Python
  - Mr. Aditya : Design and analysis of algorithms
  - Mr. Nishant : Design and analysis of algorithms

Student Corner

CLOUD COMPUTING

In In the era of relentless digital transformation, Cloud Computing has emerged as the invisible powerhouse driving innovation, scalability, and global connectivity. From enabling Fortune 500 companies to orchestrate complex operations to empowering individuals to access cutting-edge tools, cloud technology is no longer a mere convenience—it is the backbone of the modern digital ecosystem.

Cloud Computing transcends simple data storage—it redefines potential. With elastic infrastructure, on-demand computing, and advanced AI-enabled services, it equips organizations to innovate at unprecedented speed, optimize resources, and respond to market dynamics with surgical precision. Whether deploying mission-critical applications, simulating intricate models, or orchestrating global networks, the cloud amplifies human ingenuity while reducing infrastructural constraints.

However, with such transformative power comes pressing challenges. Cybersecurity, regulatory compliance, and data sovereignty pose complex dilemmas. How do we safeguard sensitive information while leveraging a system designed for ubiquitous accessibility? These questions propel ongoing advancements in cloud defense mechanisms and strategic governance.

The true promise of cloud computing lies in its democratizing force. Startups rival industry giants, academic institutions access world-class computational resources, and enterprises scale operations instantaneously. It levels the technological playing field, igniting opportunities that were once unimaginable.

As we advance into this digital frontier, one truth stands out: Cloud Computing is not just infrastructure—it is a catalyst for creativity, collaboration, and unprecedented innovation. It compels us to rethink efficiency, agility, and the very fabric of connectivity. The cloud does not merely support our digital ambitions; it amplifies them, challenging us to harness its boundless potential with vision and strategy.

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BPIT

Bhagwan Parshuram Institute of Technology

AUGUST-DECEMBER 2024

WINTER REFLECTION

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IEEE BPIT

IEEE BPIT is a vibrant technical society at Bhagwan Parshuram Institute of Technology, dedicated to equipping students with essential technical knowledge and industry exposure. We bridge the gap between academia and industry through collaborative learning, hands-on events, and Industry-Institute programs.
Our mission is to foster innovation, problem-solving, and leadership by promoting both technical and non-technical skills. At IEEE BPIT, we aim to empower students to understand the societal impact of technology and become future-ready professionals and changemakers.

GDSC BPIT

Developer Student Clubs are university based community groups for students interested in Google developer technologies. Students from all undergraduate or graduate programs with an interest in growing as a developer are welcome. By joining a GDSC, students grow their knowledge in a peer-to-peer learning environment and build solutions for local businesses and their community.

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ANVESHAN

Anveshan is a premier technical society focused on providing personal mentorship to equip students with essential tech skills, knowledge, and hands-on experience. We cultivate a collaborative environment for innovation in areas such as Data Structures and Algorithms, Development, and emerging technologies. Our community, driven by curiosity and mentorship, supports learners at all levels, from beginners to advanced coders, promoting continuous growth and success.

"The best brains of the nation may be found on the last benches of the classroom."

- APJ Abdul Kalam

HIGHLIGHTS OF THE DEPARTMENT

Achievements of Students

- Amisha Gusain (3rd year, CSE C) of Batch 2023, secured 9th position in the Red Run at GGSIPU Youth Festival in September 2024.
- Prince Kumar of CSE C (2024) got internship position for 6 months in the Machine Intelligence Signals and Networks Lab at IIT Delhi on the project Speech-to-Speech Translation for Low-Resource Languages, supervised by Prof. Sandeep Kumar on 30/12/24.
- Gauransh Goel of CSE A(2022) achieved First position for participating in Hackathon(NS Hacks) organized by NAMESPACE BPIT on 13/1/25.
- Harsh Chhabra of CSE B(2023) secured First position by participating in Hackathon(Brand It) organized by DTU on 16/2/25.
- Mokshit Kaushik (3rd year, CSE A) of Batch 2023, secured 2nd Prize in Poster Making Competition organized by NSS, BPIT on 2/2/2025.
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Student Corner

GenAI

In a world where technologyevolves at lightning speed, Generative AI is transforming the way we create, communicate, and imagine. From designing breathtaking art to composing music, writing stories, and even generating realistic simulations, this revolutionary technology is no longer a distant concept—it's a present reality reshaping our world.

Generative AI does more than process information—it creates. Leveraging advanced deep learning models, it turns ideas into content that often rivals human creativity. Artists, writers, and scientists now share their playground with machines that can inspire, innovate, and expand the limits of imagination.

But with great power comes great responsibility. Ethical concerns—authenticity, originality, and potential misuse—demand careful reflection. How do we ensure this technology complements human creativity rather than replaces it? How do we safeguard originality in a world where machines can imitate genius?

The true promise of Generative AI lies in its ability to democratize creativity. It empowers anyone with an idea to bring it to life, making innovation accessible beyond traditional boundaries. The canvas is limitless, inviting us all to experiment, imagine, and dream bigger.

As we stand at this exciting crossroads, one thing is clear: Generative AI is not here to replace us, but to elevate us. It challenges us to rethink creativity, embrace innovation, and navigate the ethical frontier of technology. The journey has just begun, and the possibilities are boundless.

Generative AI is more than a technological marvel—it's a spark igniting a new era of creation, imagination, and exploration. The question isn't whether we can harness it, but how brilliantly we choose to shape its future.

ANNUAL DIGEST

Department of Information Technology

BPIT

Magazine / November 2024

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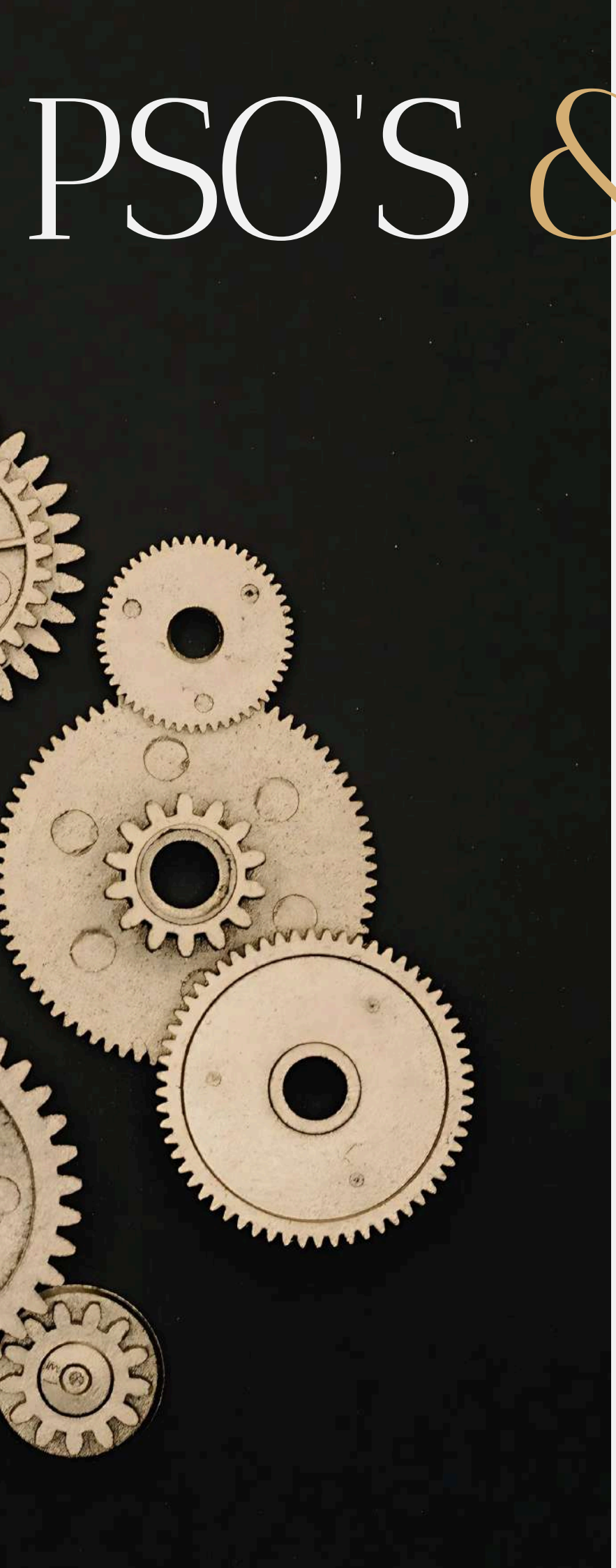
PSO'S & PO'S



PSO'S

- Design reliable and efficient software systems using software design principles, algorithm design techniques and data structure.
- Select appropriate software, hardware and networking environment for IT needs of any organization.
- Use modern technologies such as Artificial Intelligence, Big Data, Cloud Computing for building real world applications.

PO'S

- Engineering Knowledge
- Problem Analysis
- Design/ Development of Solutions
- Conduct Investigation of Complex Problems
- Modern Tool Usage
- The Engineer & Society
- Environment & Sustainability
- Ethics
- Individual & Team Work
- Communication
- Project Management
- Life - Long Learning

ENRICHMENT ACTIVITIES

Faculty Development Program

- The FDP was held from April 1-5, 2024, with 105 participants in a hybrid format.
- Dr. Sarfaraz Masood discussed deep learning, and Prof. Anand Nayyar covered autonomous car security.
- Prof. Srinivasa K G focused on generative AI in teaching, while Dr. Pritee Parwekar discussed online privacy and ChatGPT.
- Dr. Meenu explored machine learning using Python, and Dr. Deepak Kumar Jain discussed deep fakes.
- Prof. Archana Singh elaborated on the applications of generative AI, and Dr. Gurpreet Singh covered AI with cloud computing.
- Dr. Ashish Gupta highlighted AI bias in medical systems, and Prof. A.K. Mohapatra explained authentication protocols in cybersecurity.
- The program aimed to update participants on advancements in computational intelligence and cyber security.
- It was praised for enhancing skills, knowledge sharing, and technical competence among attendees.

Workshop

- Organized Workshop titled "Research Writing Skill & ethics" organized by Department of AIDS/CSE-DS in collaboration of IT dated 23 April 2024 by Prof. Abhishek Swaroop (HOD IT) & Dr. Ashish Khanna(Associate Professor)in MAIT.

SOCIETIES HIGHLIGHTS

- An Orientation Program was held on 1st October 2023, where 52 students participated. The session introduced NSS, focusing on the role of volunteers in nation-building.
- The Shramdaan Event was organized on 26th September 2023 with 70 students participating. The event promoted cleanliness and paid tribute to Mahatma Gandhi.
- On 2nd October 2023, Gandhi Jayanti was celebrated by 50 students, with a Poster Making and Essay Writing Competition.
- The Vigilance Week Quiz was conducted online on 31st October 2023, with 244 students participating to raise awareness about the Central Vigilance Commission and vigilance.
- An Integrity Pledge Campaign was organized online on 3rd November 2023, with 150 students pledging for a corruption-free society.
- The Cloth Donation Drive spanned from 9th to 25th November 2023. Warm clothes were collected and distributed to the needy on 8th December 2023.
- An online quiz, Viksit Bharat @ 2047, was conducted on 31st January 2024 with 134 participants, focusing on India's development goals.
- A Rangoli Making Competition was held on 14th February 2024 in Room 7 and the Reception Area to celebrate India's progress under Viksit Bharat @ 2047.
- The Solo Singing Competition took place on 14th February 2024 in Room 6A, celebrating cultural diversity as part of the Viksit Bharat @ 2047 program.
- A Cleanliness Drive was conducted on 21st March 2024 in the Main Ground and Canteen Area, encouraging collective responsibility.
- The 10th International Yoga Day was celebrated on 21st June 2024 to promote physical and mental well-being through yoga, involving both students and faculty.

राष्ट्रीय सेवा योजना
NATIONAL SERVICE SCHEME

NSS
BPIT

Google Developer Student Council BPIT

- On 27th August 2023, 50 students attended the Info Session to explore GDSC opportunities via Google Meet.
- On 1st September 2023, 55 students participated in the Cloud Study Jam, learning cloud computing tools.
- On 8th September 2023, 47 students attended Dive into Gen AI, focusing on AI advancements in collaboration with NSCC BPIT.
- On 20th September 2023, 75 students engaged in a Google Cloud Hands-On Workshop, involving practical cloud learning in Lab 220A.
- On 6th October 2023, 18 participants were guided through open-source contributions during the Hacktoberfest Contribution Workshop.
- On 16th October 2023, 78 students learned from Taranjot Singh on How to Ace Hackathons, sharing valuable insights.
- On 21st October 2023, 107 students joined a session on cloud databases and innovation led by Abhirami Sukumaran.
- From 28th to 30th November 2023, 1,000 participants engaged in Solvesphere, a 48-hour sustainability-focused solution challenge.
- On 10th December 2023, 260 students collaborated across 10 GDSC chapters for the Solution Challenge Info Session.
- From 24th to 29th February 2024, 100 students participated in DevSprint, a five-day exploration of web development, machine learning, and Flutter.
- On 21st April 2024, GDSC WoW, involving 70+ GDSCs, took place with tech sessions and hands-on workshops.
- On 26th April 2024, 200 students were introduced to the Gen AI Study Jam, covering Generative AI and related tools.

- On 9th August 2023, the Codenheimer coding contest was held, promoting competition and coding culture at the college.
- An orientation was conducted for the 2027 batch, focusing on teamwork, leadership, and technical opportunities within Hash Define.
- A masterclass on Hacktoberfest was led by Harshit Jain, covering open-source contributions and encouraging students to participate.
- The Peptalk with Striver event featured Raj Vikramaditya from Google, discussing placements, MAANG interviews, and personal experiences.
- Codetrek hosted Apoorv Kumar, a competitive programming expert, who shared tips on climbing ranks in platforms like Codeforces and CodeChef.
- A session titled Masterclass to Hacktoberfest was conducted, focusing on open-source contributions led by Harshit Jain.
- The Peptalk with Striver session by Raj Vikramaditya provided insights into placement preparation, including MAANG interview tips.
- Codetrek was held, where Apoorv Kumar discussed competitive programming, languages, and DSA, providing valuable guidance to students.
- The Peptalk with Striver event included discussions on time management, working abroad, and MAANG interview processes.
- Codetrek brought together students to learn from Apoorv Kumar's experiences in competitive programming and balancing it with DSA and languages.

Achievements

Faculty Achievements

- **Dr. Abhishek Swaroop**: Published 4 edited books through Springer; served as the Editorial Chair of ICDAM-2024; supervised 1 PhD from Bhagwan Mahavir University, Surat; published 3 SCI, 2 SCI, and 1 Scopus research papers.
- **Dr. Anusha Chhabra:** Awarded a commendable research award by DTU; delivered a talk on "Generative AI" under Viksit Bharat Mission; published 7 research papers.
- **Dr. Meenakshi Aggarwal:** Attended an FDP on "Research Trends in Recent Technologies, Computational Intelligence & Cyber Security"; published 5 research papers.
- **Dr. Pooja Mudgil:** Completed a PhD and was awarded a doctoral degree in Computer Science and Engineering in September 2023; published 3 SCI research papers.
- **Dr. Rachna Jain:** Session Chair in multiple international conferences, including the 7th International Conference on Innovative Computing and Communication (ICICC-2024) in February 2024, the 2nd International Conference on Advancement in Computation & Computer Technologies in May 2024, the 5th Doctoral Symposium on Computational Intelligence (DoSCI-2024) in May 2024, the International Conference on Computational Intelligence and Computing Applications (ICICCA-2024) in May 2024, the 5th International Conference on Data Analytics and Management (ICDAM-2024) in June 2024, and the 5th International Conference on Artificial Intelligence (AITA-2023) in August 2023; published 3 SCI, 4 SCI, 5 SCI, 6 SCI, 7 SCI, and 8 SCI research papers across various conferences.
- **Dr. Varsha Sharma:** Organized multiple expert lectures and seminars, including topics such as "Cybersecurity" by Mr. Yash Dhingra (April 26, 2024), "Pyspark & Generative AI" by Mr. Ayush Ailawadi (April 29, 2024), "Navigating Diverse Career Horizons and Unveiling Business Analyst's Odyssey" by Mr. Parth Jain (April 19, 2024), "Latest Advancement & Developments in Data Science" by Utkarsh Sharma (April 16, 2024), "How to be Confident in Interviews" by Ms. Shweta Sharma, and "Career in IT Solutions and Services" by Mr. Samruddha Patil; received the Gandhi Peace Award from the Eshaas Foundation in August 2023.

Student Achievements

- **Nibedan Pati (3rd Sem, IT-B):** Achieved 3rd place at MI MIT Hackathon, Manipal, Karnataka (16th Oct, ₹20,000); Cleared round 1 of SIH Internal Round (12th Sep).
- **Nittish (3rd Sem, IT-C):** Participated in SPORTS DAY at BPIT College (8th Oct); Cleared round 1 of SIH Internal Round (12th Sep); Completed internships at Cantilever (15th June) and Skill Eclipse (1st Aug); Competed in Code4Cause 2.0 Hackathon at NSUT Dwarka (7th Sep, 4th place).
- **Kavi (3rd Sem, IT-C):** Cleared round 1 of SIH Internal Round (12th Sep).
- **Anamika Singh (3rd Sem, IT-C):** Cleared round 1 of SIH Internal Round (12th Sep); 2nd place in Ecstasy 2024, DIAS, Rohini (17th Mar); 3rd place in Anugoonj 2024, USICT (10th Feb); Presented poster on Semiconductors & Quantum Physics at BPIT (6th Mar).
- **Divyansh Gupta (3rd Sem, IT-A):** Cleared round 1 of SIH Internal Round (12th Sep); Participated in Voice of Campus under Viksit Bharat@2047 at BPIT (14th Feb).
- **Karan Joshi (5th Sem, IT-B):** Cleared round 1 of SIH Internal Round (12th Sep).
- **Mani Tyagi (5th Sem, IT-B):** Cleared round 1 of SIH Internal Round (12th Sep).
- **Aastha Negi (3rd Sem, IT-A)** - Cleared round 1 of SIH Internal Round (12th Sep).
- **Priyanshi Bothra (3rd Sem, IT-A):** Cleared round 1 of SIH Internal Round (12th Sep); Participated in MI MIT Hackathon, Manipal, Karnataka (16th Oct); Engineers Day Exhibition at BPIT (13th Sep); PR Head (Octave), Project Char (Drishti) at BPIT (13th Jul); Presented poster on Semiconductors & Quantum Physics at BPIT (6th Mar).
- **Neha Rawat (3rd Sem, IT-B):** Cleared round 1 of SIH Internal Round (12th Sep); 1st place in Anugoonj 2024, USICT (10th Feb, ₹1,500); 3rd place in Ecstasy 2024, DIAS, Rohini (17th Mar).
- **Roshni (5th Sem, IT-B)** - Cleared round 1 of SIH Internal Round (12th Sep); Presented research paper at USRCSET (12th May).
- **Yash Bhardwaj (3rd Sem, IT-C):** Cleared round 1 of SIH Internal Round (12th Sep).
- **Anupam (3rd Sem, IT-C):** 4th place in Youth4Future Hackathon at MSIT (12th Sep).
- **Saumya (3rd Sem, IT-C):** Participated in Rangoli Competition under Viksit Bharat@2047 at BPIT (14th Feb).
- **Aditi Sharma (3rd Sem, IT-C):** Cleared round 1 of SIH Internal Round (12th Sep); Participated in Voice of Campus under Viksit Bharat@2047 at BPIT (10th Feb); IKS Exhibition under Viksit Bharat@2047 at BPIT (23rd Oct).
- **Arush Kamath (3rd Sem, IT-A):** 1st place in Hedera Hello Future Hackathon (Remote, 3rd Oct, ₹11,000).
- **Yash Raj (3rd Sem, IT-C):** 1st place in Onchain Summer Buildathon (1st Jul, ₹9,500).
- **Atul Kumar Singh (5th Sem, IT-B):** 2nd place in Reckon 5.0 at JIET Jodhpur (17th Feb, ₹500); Participated in Hackaracks at BPIT (30th Sep); 2nd place in Mind Installers Hackathon 2.0 at IIMT Greater Noida (24th Apr, ₹8,000).
- **Akash Kumar (3rd Sem, IT-B):** Cleared round 1 of SIH Internal Round (12th Sep).
- **Ishita Singh (3rd Sem, IT-A):** Presented poster on Semiconductors & Quantum Physics at BPIT (6th Mar); Organized TechXplore 3.0 (14th-26th Oct).
- **Krish Mishra (3rd Sem, IT-A):** Cleared round 1 of SIH Internal Round (12th Sep).
- **Ayushi Aggarwal (3rd Sem, IT-C):** Cleared round 1 of SIH Internal Round (12th Sep).

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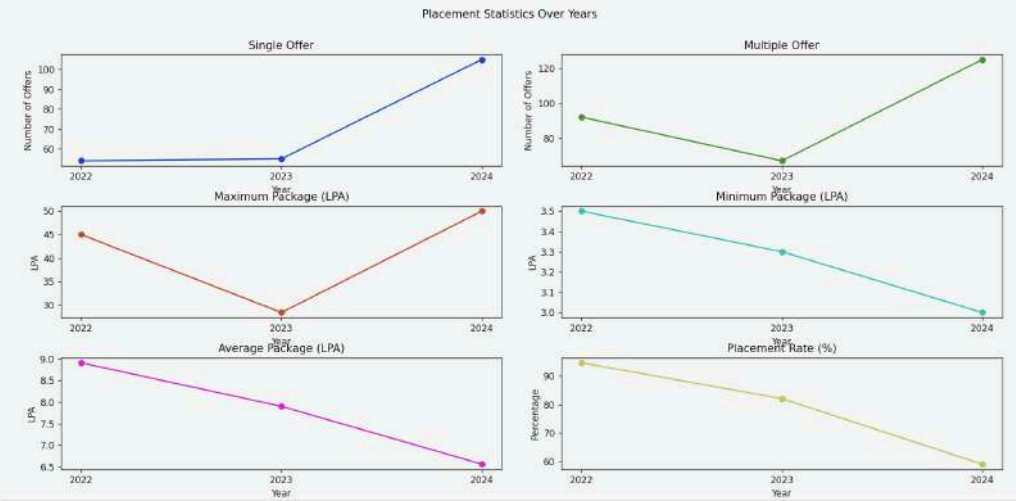
PLACEMENT RECORD SUMMARY

YEAR	2022	2023	2024
SINGLE OFFER	54	55	105
MULTIPLE OFFER	92	67	125
MAXIMUM PACKAGE	45 LPA	28.36 LPA	50 LPA
MINIMUM PACKAGE	3.5 LPA	3.36 LPA	3 LPA
AVERAGE PACKAGE	8.91 LPA	7.9 LPA	6.56 LPA
ELIGIBLE STUDENTS	57	67	178
% OF STUDENTS PLACED OUT OF ELIGIBLE STUDENTS	94.74%	82.09%	58.99%



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PROF. (DR.) MANOJ KUMAR GUPTA
EXAMINATION HEAD

DR. RACHNA JAIN ASSOCIATE PROFESSOR & ADDITIONAL HEAD

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ASSISTANT PROFESSOR

DR. VARSHA SHARMA
ASSISTANT PROFESSOR

DR. MADHUR JAIN
ASSISTANT PROFESSOR

DR. SHAILENDRA SINGH GAUR
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ASSISTANT PROFESSOR

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ASSISTANT PROFESSOR

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ASSISTANT PROFESSOR

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ASSISTANT PROFESSOR

MS. SABNAM KUMARI
ASSISTANT PROFESSOR

MS. PRIYA PANCHAL
ASSISTANT PROFESSOR

MS. PRIYANKA SINGLA
ASSISTANT PROFESSOR

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Shri Vinod Vats (Chairman)
Prof. Payal Pahwa (Principal)
Prof. (Dr.) Abhishek Swaroop (HOD IT)

Faculty Facilitator

Dr. Varsha Sharma (Assistant professor)

Student Coordinator

Karan Joshi (3rd Year IT)
Mani Tyagi (3rd Year IT)

BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY

ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

ISSUE-2 (VARTAPATRAM) 2024-2025

It is a simple feat of scientific electrical engineering -only expensive -blink,faint-hearted, doubting world.

-Nikola Tesla

DEPARTMENT'S VISION

To emerge as a center of excellence producing globally competent and morally sounds professionals in the field of ELECTRONICS AND COMMUNICATION ENGINEERING who will practice commitment to their professions and dedicate themselves to the service of mankind.

DEPARTMENT'S MISSION

1.To Develop state-of-the-art laboratories providing relevant practical inputs to students.

2. To provide strong knowledge base to students in the area of Electronics and Communication Engineering, and to train them as per requirement of industries and research organizations. 3.To facilitate Institute Industry Interaction to the benefit of stake holders and to motivate teachers for continuous improvement of their academic standards

PROGRAM EDUCATIONAL OBJECTIVES(PEO)

1.Graduate will have the fundamental and advance knowledge in Mathematics, Science, Electronics and Communication Engineering and design methodologies to successfully accomplish their professional career in industry as an Engineer, theoretically practically, in the field of Electronics and Communication Engineering, or become an entrepreneur. 2.Graduate will have strong fundamental knowledge in specialized areas of Electronics and Communication Engineering to contribute towards research and developments through paper publications, projects and pursue higher studies in their specialized fields. 3.Graduate shall learn all interpersonal skills and inculcate sense of social responsibilities and environmental concerns so as to make them good leader and citizens.

PROGRAM SPECIFIC OUTCOMES(PSO)

1.Students will have proficiency in grasping fundamental principles of Electronics and Communication Engineering and effectively applying them across diverse domains, including Semiconductors, Communications, Signal Processing, Antennas, Networking, VLSI, Embedded Systems, and becoming adept in the latest tools and methodologies employed in both research and industry.

2.Student will foster critical thinking to evaluate engineering issues pertinent to Electronics and Communication Engineering through the cultivation of profound expertise and skills in the realms of fundamental sciences, engineering mathematics, and core engineering principles, enabling the resolution of intricate engineering dilemmas. 3.Student will be able to acquire the skill to conduct independent research, seek innovative solutions, and make contributions to the progress of knowledge in specialized areas of Electronics and Communication Engineering. Adhere to ethical principles in engineering practice, research, and innovation, while exemplifying a steadfast dedication to integrity, social responsibility, and sustainable development

PILLARS OF BPIT

STALWARTS

Shri Vinod Vats(Chairman)

Padma Shree Shri Surender Sharma (Vice-President)

Shri Ram Babu Sharma (General Secretary)

Shri Shambhu Sharma (Secretary)

Shri Sanjeev Sharma (Treasurer)

Prof. Payal Pahwa (Principal)

Shri S N Jha (IAS Retd.) (Director Admin)

Prof. Y D Gaur (Exec. Director)

Shri M S Vats (OSD)

Chief - Editor

Prof. Rajiv Sharma (HOD , ECE)

Editors

Ms. Prachi Kaushik (Asst. Prof. ,ECE)

Students Editors

Himanshu sharma(2nd year,ECE)

Gyanvi(2nd year,ECE)

DEPARTMENT & ITS SOCITIES

With technology becoming increasingly integrated into every aspect of society the college provides education in the field of Electronics. ELECTRONIC AND COMMUNICATION ENGINEERING department has been dedicated to research and teaching. It provides a conducive environment where students are prepared to innovate, solve problems. The department coordinates career opportunities for its students with industry and government agencies. T

IEEE BPIT

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Advancing technology: IEEE BPIT aims to promote the development and advancement of technology where it's student members can work in any field and learn.

IIC

Ministry Of Education (MoE), Govt. Of India Has Established 'MoE's Innovation Cell (MIC)' To Systematically Foster The Culture Of Innovation Among All Higher Education Institutions (HEIs). The Primary Mandate Of MIC Is To Encourage, Inspire And Nurture Young Students By Supporting Them To Work With New Ideas And Transform Them Into Prototypes While They Are Informative Years. MIC Has Envisioned Encouraging Creation Of 'Institution's Innovation Council (IICs) Across Selected HEIs.

ELECTRONAUTS

ELECTRONAUTS is a student-led electronics society established to foster enthusiasm and passion for electronics among its members. The Society aim to cultivate a vibrant community where students can engage in open dialogue and exploration of electronic concepts beyond the confines of the standard curriculum, aligning with the evolving demands of the modern era. Mission:

- To provide exposure to the booming technologies in the field of electronics
- To invoke curiosity among the students.

HIGHLIGHTS OF DEPARTMENT

STUDENT ACHIVEMENTS

- The team consisting of **Geetika Behl, Nischay, Daksh Goyal, Aatish Kumar, Shubham Sharma, Lokesh Singh**, students of ECE was the only team selected for final round in Smart India Hackathon 2024

- Three teams of Electronauts society of ECE department, BPIT has participated in the prestigious EUREKA - Innovative Design Project/Poster Competition at the 4th International Conference on Entrepreneurship, Innovation, and Leadership (ICEIL-2024). One of our incredible teams has brought home the 2nd runner-up position out of 76 teams. The team consists of **Aatish Kumar, Nishchay , Geetika and Priyanka.** The event took place at Amity University Uttar Pradesh, Noida, from 9th to 11th October 2024.

- **Sourabh Singh** participated in BVP-HEX hackathon held at Bharatiya Vidyapeeth College on 19th October 2024 and won 1st position & a cash prize of ₹31,000.

- **Kanishk Garg** and **Samriddhi Lau** final year ECE students (2021-2025 batch) will present a paper titled " A Novel Multiple Input-Multiple Output Antenna Using Modified Co-Centric Hexagonal Resonator for Wi-Fi and 5G Communication System", in IEEE Conference (2024 IEEE 16th International Conference on Computational Intelligence and Communication Networks (CICN) on Dec 22-23, 2024 at Oriental University, Indore.

FACULTY OUTREACH & RECOGNITIONS

- **Dr. Ritu Rani** from ECE department was invited as session chair at "AIST-2024" Conference at Indira Gandhi Delhi Technical University for Women, Delhi
- Department of ECE organized “LogicX: Design to Win!” project competition for the students of ECE, 2nd year on 13th November, 2024. The event saw robust participation of 38 teams under the guidance of Dr **Rajiv Sharma (HOD, ECE Dept.), Ms Monika Kaushik (Assistant Professor, ECE), Dr Megha Agarwal (Assistant Professor, ECE) and Dr Usha Sharma (Assistant Professor, ECE).**
- **Dr.Komal Bhagat and Ms.Prachi Kaushik** successfully conducted a 5-day technical workshop on “ MATLAB for Engineers: Advance Tools and Techniques” from 4.11.24 to 8.11.24.
- BPIT Shines at GGSIPU's 25th Culmination Event!
- **Dr. Komal Bhagat** represented BPIT, with a special visit from former Delhi Chief Minister, Ms. Atishi, at our stall!

DEPARTMENTAL EVENTS

MATLAB for Engineers: Advanced Tools and Techniques

"ICT based STC on ""AI for Engineering Applications"

LogicX: Design to Win Project Competition

PLACEMENT CORNER

newgen

BHAWESH GANDHI
DHRUV NARANG
SAKSHAM GUPTA

Tushar Verma

JUSPAY

Deloitte.

APOORV BHARDWAJ
SAMBHAV JAIN

DEEPSHIKHA KARKAULIA
SIDDHARTH RAWAT
ARNAV MISHRA

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SAGAR SINGH CHAUHAN

PLACEMENT PARTNER

BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY

ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

ISSUE-4 (VARTAPATRAM) 2024-2025

"It's better to be approximately right than precisely wrong."

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PROGRAM EDUCATIONAL OBJECTIVES(PEOs)

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HIGHLIGHTS OF DEPARTMENT

Dr. Komal Bhagat published a paper titled " An innovative conditional self-attention generative adversarial network with fennec fox optimization approach for resource allocation in cognitive radio wireless communication systems" in Expert Systems with Applications, Elsevier, Vol 273, May 2025.

Dr. Ritu Rani published a paper titled "Enhancing liver disease diagnosis with hybrid SMOTE-ENN balanced machine learning models- an empirical analysis of Indian patient liver disease datasets" in Frontiers in Medicine, Vol 12, May 2025.

Ms. Prachi Kaushik & Dr. Komal Bhagat published a research paper titled" Cough Signal Processing for Classification& Early Detection of COVID-19 Using Deep Learning Integrated Approach" at the 6th International Conference on Data Analytics & Management (ICDAM-2025), held from 13th to 15th June 2025, under the theme "Data Analytics with Computer Networks." The paper will be published in Springer's LNNS Series.

Dr. Akash Rathee published a research paper titled "Perturbation-based classical and quantum field theoretic approach for parameter estimation of Kerr nonlinear medium" on 05 July 2025 in The European Physical Journal Plus, vol. 140, 634 (2025) (Springer Nature Link), SCIE-Scopus Journal.

Ms. Prachi Kaushik & Dr. Komal Bhagat, along with Rahul Baliyan (ECE 2021-25), authored a book chapter, "Eco-Conscious Sensor Networks and Smart Record Management for Sustainable Patient Monitoring," in the book titled "Responsible Innovation in Smart Healthcare" published by IGI Global, July 2025.

STUDENT ACHIVEMENTS

Rohit Rawat and Dr. Tanima Gosh authored & presented a paper titled Sustainable Development in Medical Image Enhancement

Ridhima Sharma and Sakshi Aggarwal, guided by Dr. Sandeep Sharma and Mr. Risheek Kumar presented their paper "Base Station-Optimized MIMO Antenna Using DGS-SRR-CSRR Hybridization for Wideband High-Isolation 5G Operation" at IEEE ICCCNT 2025, showcasing innovations in 5G antenna design.

Bhavya Ahuja and Shriya Pandey, under the mentorship of Mr. Risheek Kumar and Dr. Sandeep Sharma, presented "Comparative Analysis of CNN & Hybrid CNN-LSTM Models for Spectrum Sensing of 5G Signals in Cognitive Radio Networks" at IEEE ICCCNT 2025, held from July 6–8,2025.

DEPARTMENT EVENTS

ROLE OF AI IN ANTENNA DESIGN

PYTHON AND MACHINE LEARNING

Echoes of glory

We are proud to welcome Amon Sadhu as the newly appointed Threws Campus Ambassador for Bhagwan Parshuram Institute of Technology (BPIT), GGSIPU)

Yasaswini Vangara and Mohit Sharma from ECE (2021-25 Batch) made it to the Top 15 in the global "Ink Your Ideas" Blog Writing Competition

The quartet of Shivam Bhardwaj, Diksha Gangwani, Shikha kumari and Deepak Kumar from ECE-A, Second year, Bhagwan Parshuram Institute of Technology secured a place amongst the Top 10 at Delhi Industrial Ideathon

Placement corner

Yash Bansal placed in JUSPAY with a package of 21 LPA

Kaustubh Kumar Singh Placed in ZS Associates with a package of 13.68 LPA

Manya Goel placed in ZS Associates with a package of 13.68 LPA

Karan Pahwa placed in ZS Associates with a package of 12.45 LPA

Bhagwan Parshuram Institute of Technology

ELECTRONICS AND COMMUNICATION ENGINEERING

ISSUE-1 VARTAPATRAM 2024-2025

"An investmentinknowledgepaysthebestinterest" –BenjaminFranklin

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PEO1:Graduate will have the fundamental and advance knowledge in Mathematics, Science, Electronics & Communication Engineering and design methodologies to successfully accomplish their professional career in industry as an Engineer, theoretically practically, in the field of Electronics & Communication Engineering, or become an enterpreneur. PEO2:Graduate will have strong fundamental knowledge in specialized areas of Electronics & Communication Engineering to contribute towards research and developments through paper publications, projects and pursue higher studies in their specialized fields. PEO3:Graduate shall learn all interpersonal skills and inculcate sense of social responsibilities and environmental concerns so as to make them good leaders and citizens.

PROGRAM SPECIFIC OUTCOMES(PSO)

PSO1: Students will have proficiency in grasping fundamental principles of Electronics & Communication Engineering and effectively applying them across diverse domains, including Semiconductors, Communications, Signal processing, Antennas, Networking, VLSI, Embedded systems, and becoming adept in the latest tools and methodologies employed in both research and industry. PSO2:Student will foster critical thinking to evaluate engineering issues pertinent to Electronics & Communication Engineering through the cultivation of profound expertise and skills in the realms of fundamental sciences, engineering mathematics, and core engineering principles, enabling the resolution of intricate engineering dilemmas. PSO3: Student will be able to acquire the skill to conduct independent research, seek innovative solutions, and make contributions to the progress of knowledge in specialized areas of electronics and communication engineering. Adhere to ethical principles in engineering practice, research, and innovation, while exemplifying a steadfast dedication to integrity, social responsibility, and sustainable development.

PILLARS OF BPIT

STALWARTS

Shri VinodVats(Chairman)
Padma Shree Shri Surender Sharma (Vice-President)
Shri Ram Babu Sharma (General Secretary)
Shri Shambhu Sharma (Secretary)
Shri Sanjeev Sharma (Treasurer)
Prof. Payal Pahwa (Principal)
Shri S N Jha (IAS Retd.) (Director Admin)
Prof. Y D Gaur (Exec. Director)
Prof.C R Jagga (Deputy Director)
Shri M S Vats (OSD)

CHIEF-EDITOR

Prof. Rajiv Sharma (HOD, ECE)

EDITORS

Ms. PrachiKaushik(Asst.Prof., ECE)

STUDENT EDITORS

Ankita Gupta (3rd year, ECE-A)
Simran Mishra (3rd year, ECE-A)

HIGHLIGHTS OF THE DEPARTMENT

FACULTY ACHIEVEMENT

1.DrMegha Agarwal received "Commendable Patent Award" presented for excellence in Research at IGDTUW on 5th July, 2024 for her two granted patents along with a cash award of Rs.1,00,000/-

2.Ms Monika Kaushik received "Premier Research Award" presented for excellence in Research at IGDTUW on 5th July, 2024, for her Transaction paper along with a cash award of Rs. 33,000/-

3.Prof Rajiv Sharma, HOD ECE, participated as a Session Chair during the "International Conference on Smart Cyber Physical Systems" organized by the School of Sciences, CHRIST held on 13-14 September 2024.

4.**Dr Megha Agarwal** successfully completed a 4 weeks (July-Aug 2024) **NPTEL-AICTE course and FDP on "Python for Data Science" with a consolidated score of 71%.**

5.Dr. Ritu Rani from ECE department was invited to the "ICAIN-2024" Conference, organized by Guru Tegh Bahadur Institute of Technology, New Delhi

6.Dr Pavika Sharma served as a Reviewer for IEEE Transactions on Network Science and Engineering, Oct 2024.

7.Dr Usha Sharma received PhD from GGSIPU in July 2024 for her work on title "Design and analysis of multiband MIMO antenna for sub6GHz 5G applications".

8.Dr Komal Mehta Bhagat and Ms. Prachi Kaushik have submitted the project proposal entitled Eco-Friendly Wireless Sensor Networks for Monitoring Environmental Changes in Urban Landscapes in DST.

DEPARTMENTAL EVENTS

SEMICON INDIA 2024

A live screening of Hon'ble PM Shri Narendra Modi's address on the India Semiconductor Mission (ISM) was held, highlighting emerging opportunities in the semiconductor industry.

Airtel GET Placement Insight

A Google Meet session on the Bharti Airtel GET placement process was conducted by Ms. Prakriti Tiwari (ECE, 2020-2024), providing insights into the selection stages and preparation strategies.

India Mobile Congress (IMC) 2024

BPIT studentsattended the India Mobile Congress (IMC) at Bharat Mandapam on October 18, 2024. The event focused on emerging technologies like 5G, bringing together experts, startups, and policymakers to discuss key advancements in telecomand tech.

STUDENT ACHIEVEMENT

- The team consisting ofGeetika Behl,Nischay, Daksh Goyal, AatishKumar, Shubham Sharma, Lokesh Singh, students of ECE was the only team selected for final round in Smart India Hackathon2024 .
- Sourabh Singh participated in BVP-HEX hackathon held at Bharatiya Vidyapeeth College on 19th October 2024 and won 1st position & a cash prize of ₹31,000.
- Amit Pandey, ECE student (2014-2018 batch) got selected as Semi Professional Assistant, Library Department, RIE Ajmer, NCERT, Ministry of Education.
- 25 students of ECE final year (2021-2025 batch) have been selected in various reputed companies like BCH, Accenture, Lutron, Virsa Technology. The highest package of 13 LPA is attained.

BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY

ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

ISSUE-3 (VARTAPATRAM) 2024-2025

Engineering is where creativity meets logic, turning ideas into things that shape the world

DEPARTMENT'S VISION

To emerge as a center of excellence producing globally competent and morally sounds professionals in the field of ELECTRONICS AND COMMUNICATION ENGINEERING who will practice commitment to their professions and dedicate themselves to the service of mankind.

DEPARTMENT'S MISSION

1.To Develop state-of-the-art laboratories providing relevant practical inputs to students.

2. To provide strong knowledge base to students in the area of Electronics and Communication Engineering, and to train them as per requirement of industries and research organizations. 3.To facilitate Institute Industry Interaction to the benefit of stake holders and to motivate teachers for continuous improvement of their academic standards

PROGRAM EDUCATIONAL OBJECTIVES(PEO)

1.Graduate will have the fundamental and advance knowledge in Mathematics, Science, Electronics and Communication Engineering and design methodologies to successfully accomplish their professional career in industry as an Engineer, theoretically practically, in the field of Electronics and Communication Engineering, or become an entrepreneur. 2.Graduate will have strong fundamental knowledge in specialized areas of Electronics and Communication Engineering to contribute towards research and developments through paper publications, projects and pursue higher studies in their specialized fields. 3.Graduate shall learn all interpersonal skills and inculcate sense of social responsibilities and environmental concerns so as to make them good leader and citizens.

PROGRAM SPECIFIC OUTCOMES(PSO)

1.Students will have proficiency in grasping fundamental principles of Electronics and Communication Engineering and effectively applying them across diverse domains, including Semiconductors, Communications, Signal Processing, Antennas, Networking, VLSI, Embedded Systems, and becoming adept in the latest tools and methodologies employed in both research and industry.

2.Student will foster critical thinking to evaluate engineering issues pertinent to Electronics and Communication Engineering through the cultivation of profound expertise and skills in the realms of fundamental sciences, engineering mathematics, and core engineering principles, enabling the resolution of intricate engineering dilemmas. 3.Student will be able to acquire the skill to conduct independent research, seek innovative solutions, and make contributions to the progress of knowledge in specialized areas of Electronics and Communication Engineering. Adhere to ethical principles in engineering practice, research, and innovation, while exemplifying a steadfast dedication to integrity, social responsibility, and sustainable development

PILLARS OF BPIT

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Chief - Editor

Prof. Rajiv Sharma (HOD , ECE)

Editor

Ms. Prachi Kaushik (Asst. Prof. ,ECE)

Student Editors

Himanshu sharma(3rd year,ECE)
Gyanvi(3rd year,ECE)

DEPARTMENT & ITS SOCIETIES

With technology becoming increasingly integrated into every aspect of society the college provides education in the field of Electronics. ELECTRONIC AND COMMUNICATION ENGINEERING department has been dedicated to research and teaching. It provides a conducive environment where students are prepared to innovate, solve problems. The department coordinates career opportunities for its students with industry and government agencies.

IEEE BPIT

IEEE-BPIT is a technical society which aims to spread technical awareness amongst Students. It helps them to develop their technical skills, to give a professional outlook, and to encourage them to participate in various technical competitions held in various Universities.

Institute of Electrical and Electronics Engineers (IEEE) BPIT is a professional organization dedicated to advancing technology for the benefit of students. IEEE BPIT has several objectives, including :

Advancing technology: IEEE BPIT aims to promote the development and advancement of technology where it's student members can work in any field and learn.

IIC

Ministry Of Education (MoE), Govt. Of India Has Established 'MoE's Innovation Cell (MIC)' To Systematically Foster The Culture Of Innovation Among All Higher Education Institutions (HEIs). The Primary Mandate Of MIC Is To Encourage, Inspire And Nurture Young Students By Supporting Them To Work With New Ideas And Transform Them Into Prototypes While They Are Informative Years. MIC Has Envisioned Encouraging Creation Of 'Institution's Innovation Council (IICs) Across Selected HEIs.

ELECTRONAUTS

ELECTRONAUTS is a student-led electronics society established to foster enthusiasm and passion for electronics among its members. The Society aim to cultivate a vibrant community where students can engage in open dialogue and exploration of electronic concepts beyond the confines of the standard curriculum, aligning with the evolving demands of the modern era. Mission:

- To provide exposure to the booming technologies in the field of electronics
- To invoke curiosity among the students.

HIGHLIGHTS OF DEPARTMENT

FACULTY OUTREACH & RECOGNITIONS

- Ms. **Prachi Kaushik** & **Dr. Komal Bhagat** presented & published a research paper titled" Machine Learning-Based Approaches for Cerebral Tumor Detection and Classification: A Comparative Performance Analysis" at the 3rd International Conference on Artificial Intelligence and Applications (ICAIA 2025), held from 26th to 27th March 2025. The paper will be published in Springer's AIS Book Series.
- **Ms. Tanima Ghosh** Successfully defended her PhD thesis on 'Performance Analysis of Image Fusion Algorithms for Biomedical Applications' at Delhi Technological University, and achieved her Ph.D., degree.
- **Dr. Sandeep Sharma** and **Mr. Risheek Kumar** has successfully completed one-week AICTE & MIC Sponsored FDP on Innovation & Entrepreneurship at NSUT Main Campus, Delhi from 24th March 2025 to 28th March 2025.
- An ICT-based Short-Term Course (STC) on "Teaching ECE Lab Subjects using Free Simulators" was held from 3rd to 7th March 2025, specifically designed for faculty members of ECE and EEE departments. The course was coordinated by Dr. Balwinder S. Dhaliwal (Course Coordinator, NITTTR Chandigarh), along with **Dr. Garima Saini, Dr. Gaurav Kumar, Dr. Jagriti Sain**i, and **Mr. Jatin Sharma.**
- Book chapter titled, " Advancements in Security Technologies for Smart Cities: A Comprehensive Overview" by **Dr. Megha Agarwa**l with B.Tech. ECE student, Lokesh Singh has been published in "EXPLAINABLE IOT APPLICATION-A DEMYSTIFICATION" springer ISEM series, Feburary 2025.
- An FDP on "IoT & AI Technologies for Research and Future Trends" was conducted from 25th to 29th March 2025, targeting faculty members from BPIT and other institutions. The program was coordinated by **Dr. Usha Sharma** and Dr. **Pavika Sharma.**

STUDENT ACHIVEMENTS

- The team consisting of Nischay, Srijal Roy, Chhavi Gautam, and Jayesh Vishwakarma participated in the Arduino hackathon organized at Manav Rachana on 21st -22nd March 2025 and secured 1st position.

- The team consisting of Geetika Behl, Nischay, and Aatish Kumar participated in IDEATHON 3.0, an entrepreneurship festival pitching day on 1st March 2025, and secured 3rd position and a cash prize of Rs. 5000.

DEPARTMENTAL EVENTS

- Hardware Design Using FPGA
- IEEE AP-S One Week STTP on "Next Generation Wireless Technology"
- ICT based STC on "Teaching ECE Lab Subjects using the free simulators"
- FDP on "IoT & AI Technologies for Research and Future Trends"

Echoes of Glory

Raj Keshri, student of ECE 2nd year secured 1st position in LAKSHAY 2024-25 (Cricket) held at GIBS, Delhi on 29-30 Jan, 2025

SUO Mohd. Zaid representing Delhi DTE at Republic Day Parade 2025

SUO Mohd. Zaid getting Tiranga and medal for best institution award (runner up) from ADG

PLACEMENT CORNER

BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY

Electrical and Electronics Engineering Department

Newsletter Jan – July 2025 EEE EXPRESS

"Thoroughly conscious ignorance is the prelude to every real advance in science."

~ James Clerk Maxwell

Department's Vision

To emerge as a center of excellence producing globally competent and morally sound professionals in the field of Electrical & Electronics who will practice commitment to their profession and dedicate themselves to the service of mankind

Department's Mission

- To develop state-of-the-art laboratories providing relevant practical inputs to students.
- To provide a strong knowledge base to students in the area of Electrical & Electronics and to train them as per the requirements of industries and research organizations.
- To facilitate institute industry interaction to the benefit of stakeholders and to motivate teachers for continuous improvement of their academic standards.

spoken-tutorial

Powered by
Ministry of Human Resources and Development, Government of India.

PILLARS OF BPIT

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(Principal, BPIT)
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Editors:

Dr. Ruchika Garg

Student Editor:

Vanshika Ohri

BPIT

DEPARTMENT & ITS RESOURCES

Electricity is foundational to modern society — it powers our homes, fuels industry, and drives innovation. Recognizing this, the Department of Electrical & Electronics Engineering at Bhagwan Parshuram Institute of Technology (BPIT) has been shaping engineers since the very inception of the institute. Offering a **B.Tech in Electrical & Electronics Engineering** with an **annual intake of 60 students**, the department combines tradition with progress. Key features:

- Dedicated, experienced, and highly qualified faculty and staff.
- Well-equipped, modern laboratories supporting both the university curriculum and industry-standard training.
- Accreditation by the National Board of Accreditation (NBA), reflecting our commitment to high educational standards.

RESOURCES

All of our laboratories are well-equipped to meet the requirements of the university curriculum. These are listed below:

1. Electrical Science Lab
2. Electrical Machine-I & II Lab
3. Power System-I & II Lab
4. Computational Methods & PSLP Lab
5. Control Systems Lab
6. Advanced Control System Lab
7. Neuro-Fuzzy Systems Lab
8. Electrical Machine Design Lab
9. Electrical Engineering Workshop Lab
10. Electrical and Electronics Measuring Instruments Lab
11. Electric Drives Lab

IEEE

INFO-BIT

Info-bit is a glance at webinars, success messages, and workshops depicting students' all achievements.

HIGHLIGHTS OF THE DEPARTMENT

For the academic and professional development of students and faculty, the Department of Electrical and Electronics Engineering organizes an array of guest lectures and webinars. These are as follows:

- 04–08 November 2024, Short-Term Course on "AI for Engineering Applications" – NITTTR Chandigarh. Faculty members participated in a one- week STC focused on Artificial Intelligence in engineering. Topics included machine learning, neural networks, and AI-driven automation. The course empowered educators to integrate AI into teaching and research, enhancing academic excellence.

- 27–31 January 2025, STC on "Science, Technology & Innovation for Sustainable Development" – NITTTR Chandigarh at BPIT Delhi. This impactful STC aimed to promote sustainable development through innovation. Experts from academia and industry delivered sessions on renewable energy, electric vehicles, smart grids, and environmental management.

- On 05 February 2025, Faculty Interaction – CVK Electrical, Sikandrabad (UP). EEE faculty visited CVK Electrical to engage with industry professionals and explore real-world engineering challenges.

- On 11 February 2025, Autonomous Vehicle Developer Community Meet – The Ashok, Delhi Faculty members participated in an exclusive event featuring NXT Wave (Hyderabad) and The Autowave Foundation (Japan). Discussions focused on autonomous vehicle technologies, AI integration, and global mobility innovations.

- 14 February 2025, Student Visit – India Energy Week 2025 B. Tech (EEE) students attended India Energy Week 2025 at Yashobhoomi, Dwarka. The event featured innovations in hydrogen energy, smart grids, and sustainable power systems.

spoken-tutorial

Powered by
Ministry of Human Resources and Development, Government of India.

- 8 February 2025, Seminar on IoT – Expert Talk by Mr. Ritesh (DUCAT Training Centre). Topics included sensor networks, smart devices, and industrial automation. The session sparked interest in embedded systems and digital connectivity among students.

- 25 February 2025, Academic Visit – CART, IIT Delhi Students visited the Centre for Automotive Research and Tribology (CART) at IIT Delhi. The visit provided exposure to advanced research in electric mobility, battery systems, and automotive innovation. It was a valuable experience linking classroom learning with cutting-edge research.

- 27–29 March 2025, 3-Day Workshop on "Electric Vehicle: Technology & Innovation" -A comprehensive workshop organized by the EEE Department in collaboration with NITTTR Chandigarh.

- Expert talk on "Career Opportunities for B. Tech Students" by Mr. Jitender Tiwari, an educationalist whose name is registered in LIMCA BOOK OF RECORDS.

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BPIT

STUDENTS CORNER

STUDENT ACHIEVEMENTS

- EEE Department alumnus Mr. Hitesh was honored with the Medal gallantry award by the President of India on 26 Jan 2023.

- Khushi Priya, a 3rd-year student of the EEE Department got Ist position in group singing at NCC event, Delhi.

- **Aryan Rajput**, a distinguished student from the Electrical & Electronics Engineering (EEE) Department at Bhagwan Parshuram Institute of Technology (BPIT), has demonstrated exemplary leadership and organizational skills. As the **President of the Kalam Society**, he successfully orchestrated a series of impactful events that enriched the academic and cultural landscape of the institute.

- Aryan Rajput successfully completed the course of Alpha (DSA with Java)

- Mr. Gaurav Sharma, along with our esteemed faculty members Dr. Peeyush Pant and Mr. H K Rajput, has made a significant contribution to a research paper published in STM Journals.

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- **Ankit Kr. Jha**, a student from EEE Department has secured a position at **Justpay**, a leading fintech company specializing in payment orchestration and global coverage.

- Ankit Kr Mehrotra secured position in KEI Industries.

- Khushi Priya another member of the IEEE, has been recognized with the Outstanding Student Volunteer Award.

- Several students of the EEE Department participated in the SIH Hackathon.

IEEE

BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY

SCHOOL OF BUSINESS ADMINISTRATION

PULSE: THE HALF YEARLY NEWSLETTER OF SBA

(August, 2024 – December, 2024)

National Space Day Celebration on Aug 23, 2024: Igniting the Cosmos in Young Minds!

On August 23, 2023, India made history as the first nation to land on the Moon's southern polar region, marking it as National Space Day. School of Business Administration, BPIT celebrated this day in 2024 with engaging activities that sparked student interest in space exploration and astronomy. The event inspired a love for space science, making learning both fun and memorable for all participants. Students participated enthusiastically in diverse events.

The Orientation Session for the First-year MBA (2024-26) and BBA (2024-27) Students on 4th September, 2024.

BPIT conducted the orientation session for the First-year MBA (2024-26) and BBA (2024-27) Students on 4th of September, 2024. Prof. Payal Pahwa (Principal, BPIT) gave her blessings to the students. The students were familiarized with the rules, regulations and policies of the institute. In the session, the MBA Alumni -Anuj Chawla (Batch 2008-10) Designation – Finance operation lead in British Telecom and Ms. Jyoti Tyagi (Batch 2013-15) Designation- Raw and pack material planner in Procter and Gamble, interacted and shared their experiences with the first year students.

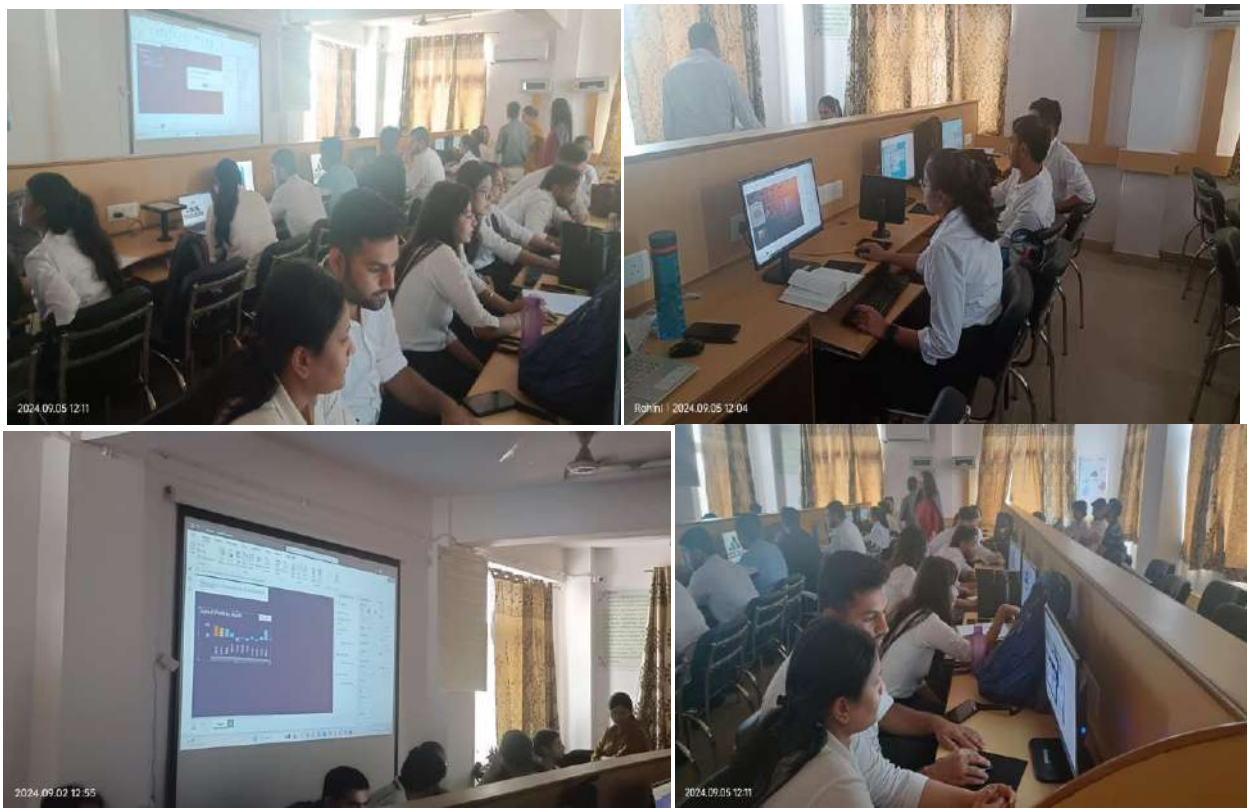
A Study Visit to Parliament House on September 4, 2024

School of Business Administration of Bhagwan Parshuram Institute of Technology organized a study visit to Parliament on 04th September, 2024 for its MBA III semester students. A group of 35 students along with 3 faculty members namely, Dr, Amit Gupta, Dr. Mani Manjari and Dr. Gayatri Chopra visited the parliament house. This was indeed an informative and educational visit for the students. This visit was organized with the assistance of Parliamentary Research and Training Institute for Democracies (PRIDE). Senior delegates of Pride guided the students about the functioning of both houses of the parliament in a very simple manner. Students visited the

old and new complexes of Parliament along with the Parliament library, Parliament Museum and visitors' gallery. In addition to that, students came to know about the election procedure of Rajya Sabha members and how a law is framed. Officials of Pride answered the questions of students in a very simple and easy manner. It was indeed a learning experience for the students.

Power BI Workshop from 2nd-5th September, 2024

SBA department at BPIT organized a three-day workshop on Power BI in collaboration with Winnovation Education Service Private Ltd on 2nd, 3rd and 5thSeptember 2024. On first Day, students were introduced to Power Bi and its features and components. Students learnt how to import and transform data. Basics of data visualization were also covered. Day two focused on Advanced Data Modelling and Data Analytics. On Day threestudents were given an idea about industry application of the software. This workshop was attended by 38 students of MBA 1st year and 2nd year.



Financial Planning with CFP Certification on 10th September, 2024

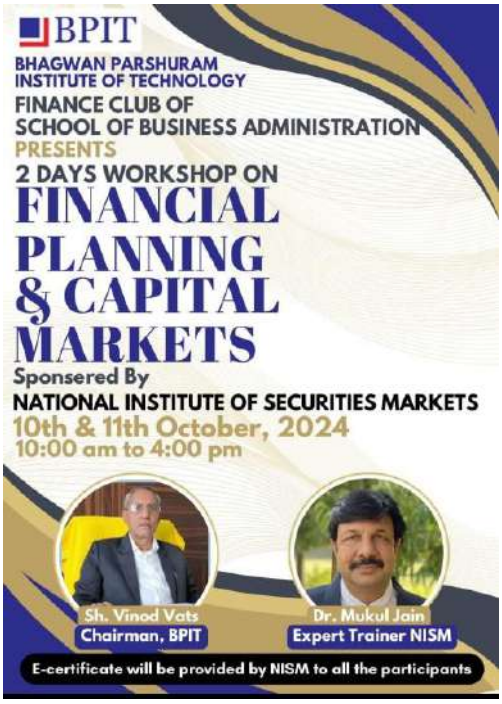
On September 10th Finance club of School of Business Administration organized a guest talk on "Financial Planning with CFP certification"for its MBA students. This session was organized by Financial Planning Standard Board (FPSB) India. Mr. Anurag Rana, Senior Manager of FPSB India addressed the students. He explained the importance of financial planning for young investors with real life examples. He also explained that Certified Financial Planning course is globally accepted with its acceptance in 27 countries. Students got the practical exposure about the various tools of saving and investment, power of compounding etc.

Symposium 1.O on "Sustainability A Paradigm Shift for Global Survival" on Thursday, September 19th, 2024.

School of Business Administration (SBA), Bhagwan Parshuram Institute of Technology (BPIT) organized the Symposium 1.O on “Sustainability: A Paradigm Shift for Global Survival” on Thursday, September 19th, 2024. Esteemed dignitaries of BPIT graced the inauguration session: Shri Vinod Vats Ji, Chairman, BPIT; Shri Ram Babu Sharma ji, General Secretary, BPIT Shri Sanjeev Sharma Ji, Treasurer, BPIT; Shri Jai Prakash Sharma ji, PRO, BPIT; Shri S.N. Jha Sir, Director Administration, BPIT; Prof. Payal Pahwa, Principal BPIT. The panelists for the event were the highly accomplished Alumni of School of Business Administration, BPIT, Dr. Nishant Gaur and Mr. Kamal Kant. It was a moment of great pride to have alumni come back to the alma mater as guests.

Two days SEBI-NISM sponsored workshop on "Financial Planning and Capital Markets" on 10th & 11th October, 2024

Finance club of School of Business Administration organized a two days workshop on October 10th & 11th, 2024 for the students of BBA and MBA. The topic of the workshop was "Financial Planning and Capital Markets"and this workshop was sponsored by Securities and Exchange Board of India (SEBI) and National Institute of Securities Markets (NISM). Approximately 80 students participated in this workshop. Dr. Mukul Jain, a well renowned financial expert was the resource person for the workshop. On the first day of the workshop, he explained the basics of savings and investments to the students and he also explained how to make a financial plan for an individual by diversifying the portfolio. Mr. Jain explained the various latest options of investments available for the investors. On the second day, the discussion was done on the financial markets with a emphasis on capital markets, intermediaries of the markets and their role in capital markets. Students came to know about the various methods of raising capital and their pros and cons. Lastly, Mr. Jain explained the various career options available for the management students in the financial sector. At last, workshop came to an end with a meaningful learning and a lot of practical exposure.



Industrial Visit of MBA first year students to Coca Cola Happiness factory on 23 October 2024

Coca Cola Happiness Factory is the Coke franchise bottling plant in Greater Noida, Uttar Pradesh. An Industrial Visit helps in enhancement of students' understanding of the actual working of an organization and to know about the intricacies involved in organizational working. The students of MBA 1st Semester were taken to the Coca Cola Happiness Factory bottling plant at Greater Noida on 23rd October 2024. Ms. Seema Kaushik, Assistant Professor BPIT accompanied the students for the visit

Communication and Soft Skills Training: Mahindra Pride Classroom from 21st October 2024- 26th October, 2024

SBA department of Bhagwan Parshuram Institute of Technology organized a six day training program on Communication and Soft Skills in collaboration with Mahindra and Naandi from 21st October 2024 – 26th October 2024. A total of 47 students from BBA, MBA and B.Tech background attended this training. The objective of this training program was to help students to:

1)Develop an identity and improve their self- esteem.

2)Manage emotions and overcome obstacles.

3)Build relationships and polish their interpersonal skills.

4)Enhance and improve employability skills.

5)Improve personal and professional effectiveness.

This training helped students overcome their fear of public speaking and communication challenges. The sessions helped students to enhance their employability and succeed in the jobs.

4th International Conference on the Theme "Energy and Sustainability: Tackling the Global Climate Challenge" on Thursday the 5th of December, 2024.

The Bachelor of Business Administration Department of SBA, BPIT proudly hosted its 4th International Conference on the Theme "Energy and Sustainability: Tackling the Global Climate Challenge" on Thursday the 5th of December, 2024. The event was a grand success and a great learning opportunity for the research fraternity. The BBA department feels indebted to Shri Vinod Vats, Chairman BPIT for his perpetual support. The Conference started with a very insightful Pre-Conference session by Prof. Brandon Randolph Seng, Editor in Chief, Management Decision on the 4th of December 2024. He gave valuable inputs into improvising research and the publication opportunities for the conference participants in the prestigious journal Management Decision. The key note speakers for the event were the eminent Prof. Roy Matta, Prof Charbel Salloum, Prof. Marco Valeri who graced the inaugural virtually, all the way from France and Italy and Lebanon, respectively. The Conference session chairs were extremely distinguished Prof. Divya Gangwar and Dr. Sonal Thukral. We are extremely grateful for their insightful contributions. The conference witnessed 25 research papers from India and abroad from eminent Institutes such as Salford University UK, NIT Silchar, Amity Noida, Maharaja Surajmal Institute Delhi, to name a few. Two papers were awarded as best papers, One from each track respectively. The winners were: Best Paper Award (Session I): Environmental, Social and Governance (ESG) Performance of Parent firm and Financial Performance of Subsidiary: Moderating effect of Institutional Distance Between home and host Countries: Dr. Neetu Sharma, Dr. Amir Hafizullah Khan from Salford University, UK Best Paper Award (Session II): The Impact of Artificial Intelligence-Driven Personalized Marketing on Buying Behavior: Dr. Syed Aijaz Ahmad, Dr. Maroof Ahmad Mir, Dr. Anam Afaq, Ms. Shikha Nagar from Asian Business School, Noida.


BPIT
BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY
BBA
BACHELOR OF BUSINESS ADMINISTRATION
4th International Conference
on
SUSTAINABILITY:
Climate Challenge
ember 5th, 2024


BPIT

Financial Education for Young Citizens

Certificate of Appreciation was awarded to Bhagwan Parshuram Institute of Technology for organizing 10 hours training session on Financial Education for Young Citizens for its BBA and MBA students. Session was organised in collaboration with NISM and Aditya Birla Capital.

Students' Achievements

III Position at Brainiacs 2.00: Case Analysis Competition at MSI on 24th October, 2024

Bhavya Raj, Ananya Varshney, Priyanshu Pandey, Sanidhya Goyal secured 3rd position Brainiacs 2.0 : he national case analysis competition at Maharaja Surajmal Institute, New Delhi

2nd Position at Case Study Analysis Competition hosted by Jagannath International Management School , Vasant Kunj on November 16th, 2024

Students of Bhagwan Parshuram Institute of Technology (BPIT) Animesh Nayak(Ist year BBA) , Arnav Nayak(Ist year BBA)and Priyanshu Pandey (IIIrd year BBA)showcased their exceptional analytical and problem-solving skills by securing the second prize in the prestigious National Case Study Analysis Competition hosted by Jagannath International Management School , Vasant Kunj . The competition, held in two rounds on November 13th and 16th 2024, brought together talented teams from various states and renowned universities across the country.

SBA, BPIT team stood out among the best, demonstrating their expertise and innovative approach to complex case studies. Their hard work and dedication earned them accolades in the form of a trophy, certificates of merit, and a cash prize worth Rs 1500, highlighting their remarkable achievement on a national platform.

BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY
SCHOOL OF BUSINESS ADMINISTRATION
PULSE: THE HALF YEARLY NEWSLETTER OF SBA
(January, 2025 – July, 2025)

Industrial visit for MBA students to Organic Wellness Research Farm on 24th January 2025

School of Business Administration, BPIT organized an Industrial visit for MBA students on 24th January 2025. A total of 48 MBA students visited Organic Wellness research farm in Gurugram. It was a great opportunity for students to interact with Mr. Krishan Guptaa, Founder and Managing director, Organic Wellness Products Pvt. Ltd. Students were able to understand about Sustainable Business Practices and learnt about Supply Chain Dynamics and got insight into Employee and Farmer Welfare practices. The marketing concept of “Product is the King” was very well understood by students as their high quality products speak for themselves and customers are their best brand ambassadors.

Guest Lecture on Leadership, Industry Trends and Career Strategies in Marketing

SBA BPIT hosted an inspiring guest lecture by Mr. Gaurav Parashar on leadership, industry trends, and career strategies in the marketing domain on 30th Jan 2025! Grateful for the insights to empower future leaders from MBA 2nd and 4th Semester.

Awareness Drive for Crime Against Women and Voting by the Students Community on 31st January, 2025

BPIT hosted a cyber crime awareness program led by Sub-Inspector Ms. Omsheela Hudaj from Rohini District Police Station on Friday, 31st January, 2025. The program aimed to educate BBA students about cyber crimes and the importance of responsible voting. A poster-making competition on the theme of “Desh ka Garv,Chunav ka Parv” was also held, where 10 teams participated, and 4 teams were declared winners. The event was a huge success, promoting awareness and responsibility amongst the students.

Workshop on SEBI-CDSL Sponsored “Financial Planning and Capital Markets” on 4th February, 2025

The Finance club of the School of Business Administration organized a workshop on February 4th, 2025 for the students of BBA. The topic of the workshop was “Financial Planning and Capital Markets” and this workshop was sponsored by Securities and Exchange Board of India (SEBI) and Central Depository Securities Limited (CDSL). Approximately 80 students participated in this workshop. Dr. Mukul Jain, a well renowned financial expert was the resource person for the workshop. He explained the basics of savings and investments to the students and he also explained how to make a financial plan for an individual by diversifying the portfolio. Mr. Jain explained the various latest options of investments available for the investors.

He discussed the financial markets with an emphasis on capital markets, intermediaries of the markets and their role in capital markets. Students came to know about the various methods of raising capital and their pros and cons. Lastly, Mr. Jain explained the various career options available for the management students in the financial sector. At last, workshop came to an end with a meaningful learning and a lot of practical exposure

Guest Talk on Corporate Readiness, Self Motivation, Goal Setting and Group Discussion on 4th February, 2025

The Training & Placement Cell of Bhagwan Parshuram Institute of Technology recently organized a highly insightful Guest Talk on Corporate Readiness, Self-Motivation, Goal Setting, and Group Discussion for the BBA/MBA final year students (2025 batch).

We were honored to have had Dr. Ashok Sangwan, IT Delivery Leader at Kyndryl, lead the session. Dr. Sangwan, with his vast experience in IT operations and strategic project delivery, shared invaluable insights on:

Analysis of Union Budget on 6th & 7th February, 2025

The Union Budget unfolds like a tapestry of economic vision, weaving policies, taxes, and growth into a narrative of progress. For MBA students, it is a compass, guiding them through fiscal tides, industry shifts, and investment flows. It shapes keen minds to decode strategies, foresee trends, and craft tomorrow's business landscape.

On 6th and 7th February, 2025 , the MBA students and faculty at The School of Business Administration , BPIT held an insightful session on in-depth analysis of the Union Budget presented in the Parliament by the Honourable Finance Minister .

Faculty members Dr. Amit Gupta , Dr Anshika Goel and Ms. Seema Kaushik led the discussion. This was followed by a quiz that re-enforced students' key takeaways from the session which was meticulously curated by Dr Aarti Haswani and Ms. Neha Garg.

The winners of the quiz were –

Sarvesh kumar MBA 4th Sem – 1st Position

Yash MBA 2nd Sem – 2nd Position

Yashika Aggarwal MBA 2nd Sem- 3rd position.

Placement Drive by Genpact on 7th February, 2025

The Training & Placement Cell of Bhagwan Parshuram Institute of Technology was thrilled to host Genpact for a successful placement drive for BBA/MBA final year students 2025 Batch on 7th February 2025.

This placement drive marked a significant step forward in providing our students with exciting career opportunities with one of the leading global professional services firms. It was a great opportunity for students to engage with Genpact's recruitment team, gain insights into the company's operations, and take a step closer to a successful career.

We are proud of the continued efforts to bridge the gap between academia and industry, and we look forward to more such fruitful collaborations that provide our students with a strong foundation for their professional journeys.

Union Budget Insights: A Dialogue with the Deputy Commissioner of Taxation at IRS, Dr. Priyanka Singh on 11th February, 2025

SBA, BPIT hosted an interactive session with the Deputy Commissioner of Taxation, Dr. Priyanka Singh, where students engaged in a lively discussion on taxation, its implications, and career opportunities in the field.

Key Highlights

– In-depth insights into the Union Budget 2025-26

– Discussion on tax policies, reforms, and their impact on the economy

– Career guidance and opportunities in taxation

– Interactive Q&A session

The session was incredibly informative for students and helped clarify many concepts.

The Deputy Commissioner of taxation at IRS , Dr. Priyanka Singh, guidance on career paths in taxation is invaluable.

Mock Interview for MBA Students by Industrial Professional on 19th February, 2025

Mock interviews conducted by industry professionals offer invaluable real-world exposure to MBA students. They provide a safe space to practice answering complex questions, refine communication skills, and build confidence. Constructive feedback from experts helps students identify strengths and improve weaknesses in areas like body language, technical knowledge, and problem-solving. These simulations prepare students for high-stakes corporate interviews, reducing anxiety and enhancing adaptability to diverse interview formats.

MBA Sem 4 students at BPIT got an immensely amazing learning experience through the Mock interviews they appeared for, conducted by Mr. Sujoy Basu, a senior HR professional. The entire exercise gave students learning and insights experientially. Additionally, the mock interviews helped them understand how to bridge the gap between academic learning and industry expectations, making them job-ready.

Study Visit to Parliament House on February 20th 2025

School of Business Administration of Bhagwan Parshuram Institute of Technology organized a study visit to Parliament on 20th February, 2025 for its BBA II semester students. A group of 46 students along with 3 faculty members namely Prof. Sundram Priyadarshnie, Dr, Amit Gupta, Ms. Vidhu Vats visited the parliament house. This was indeed an informative and educational visit for the students. This visit was organized with the assistance of the Parliamentary Research and Training Institute for Democracies (PRIDE). Senior delegates of Pride guided the students about the functioning of both houses of the parliament in a very simple manner.

Expert Lecture on Arbitration, Litigation and Mitigation and Business on 7th April, 2025

The School of Business Administration, BPIT, under its Leadership Lecture Series, hosted an expert lecture for the students on Monday, 7th April, 2025. The eminent speaker was Justice S. N. Jha Former Chief Justice – Rajasthan High Court, Chief Justice – Jammu and Kashmir High Court and Judge at Patna High Court. He shared his immense knowledge and wisdom on the topic
“Arbitration, Litigation, Mitigation & Business.”
This session aimed to provide practical insights, strategies, and expert guidance to help navigate complex legal challenges, strengthen negotiation tactics, and enhance leadership in legal and corporate settings.
It was an extremely enriching session and a great learning experience for the students as well as for the faculty

Student Achievements

1. **Nandini Mehrotra** (BBA 2024-28) successfully completed the Equity Derivatives: A beginner's Module of the National Certification in Financial Markets on 9th April, 2025
2. **Khushi Arora and Sakshi Agrawal** (MBA 24-26 batch) secured the runner-up position in the Business Stake competition in the Symposium 8.0 event organised by JIMS Vasant Kunj on 27th March, 2025.
3. **Khushi Arora, Vaishnavi Verma, Sakshi Agrawal, Hitakshi Aggarwal, Ishita Goel, Yukta Bhojwani, Shivani, and Janvi Jangid** (MBA 24-26 batch) participated in the Symposium 8.0 event organised by JIMS Vasant Kunj on 27th March, 2025.
4. **Rupam kumari & Vanisha** (BBA 2022-25) won 3rd prize in International Women's Day, National Paper Presentation Competition on Prevention of Use of Drugs held by GGSIPU & Bhagidari Jan Sahyog Samiti on 7th and 8th March 2025.
5. **Ishaan Gupta & Rupam Kumari** (BBA 2022-25) won 1st Position & a cash prize of Rs.5000/- in Business Plan Competition at Connect 2k25, Management fest of Gitarattan International Business School on 7th & 8th March 2025
6. **Ansh Sharma and Alwin D.R.**(BBA 2024-28) Secured 1st position as members of BPIT cricket team in Rishihood Sports Fest held from 20/02/25- 24/02/25
7. **Ishaan Gupta, Rupam Kumari & Vanisha** from BBA(2022-25) won 1st position & a cash prize of Rs.5000/- in Business Plan Competition out of 235 Teams including colleges like IIT Delhi, SRCC & Hindi college, at Kamla Nehru College, DU south campus on 3rd February, 2025
8. **Priyanshu Pandey (BBA 2022-25) Vanshika Bansal**(BBA 2023-26) won 2nd Prize in ADMAD Competition held in Jaipuria School of Business on 22 February, 2025
9. **Priyanshu Pandey**, **BBA (2022-25)** student bagged second position in Brand Aid Advertisement Presentation Competition in VIPS, Pitampura on 30th January, 2025.