BHAGWAN PARSHURAM INSTITUTE OF TECHNOLOGY

COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

Newsletter - December 2023

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.

DEPARTMENT'S MISSION

1.To inculcate self-motivation among the students, who can find and understand the need of the day.
2.To produce best quality professionals with strong conceptual knowledge and hands-on experience.
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 OBJECTIVES(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.

PROGRAM SPECIFIC OUTCOMES(PSO)

1.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.
2.To demonstrate research and technical skills for emerging areas to produce solutions to problems through open source and proprietary platforms.
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

PATRONS

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)
Prof. Y D Gaur (Exec. Director)
Prof. C R Jagga (Deputy Director)
Shri M S Vats (OSD)

CHIEF-EDITOR

Dr. Shweta Taneja (HOD CSE)

EDITORS

Dr. Charu Gupta (Asst. Prof. CSE)
Dr. Palak Girdhar (Asst. Prof. CSE)

STUDENT COORDINATORS

Vibhuti Gupta (3rd year, CSE)
Khushi Kulshreshtha (3rd year, CSE)

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DEPARTMENT & ITS SOCIETIES'S EVENTS

With technology becoming increasingly integrated into every aspect of society the college provides education in the field of Computer Science. Computer Science & 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. The department has diverse professional faculty members pertaining to different academic backgrounds to deliver and bring the best out of students.

#DEFINE

1.CODENHEIMER an online coding contest conducted by #define more than hundred students pparticipated in that.
2. A session on masterclass to hacktoberfest by Harshit Jain was also organised.
3. #Define also conducted biggest event by a society in the year 2023 that is Pep talk with Striver (Raj VikramAditya).

IEEE BPIT

1. IEEE conducted a webinar on Introduction to Robotics by Aryan Singh and Arpan Basu Sachdeva.
2. It also conducted Roborace , RoboSoccer and GameJam in Malhaar'23.

GDSC BPIT

1.GDSC conducted Cloud Study Jams session online.
2.Another session on Generative AI was conducted by GDSC BPIT.
3.Hands-On Workshop was also conducted.
4. GDSC BPIT also conducted a SolveSphere competition in Malhaar'23.

NAMESPACE

1. Namespace conducted Game Of Codes 3.O an online contest more than hundred students attempted the contest.
2. It also conducted a session on API 101 with Postman.

ANVESHAN

1.Conducted an event on GATE exam in collaboration with Unacademy.
2.A web3 cohort on Blockchain more than 1K people attended.

WIBD BPIT

1.Conducted a webinar on Tableau by Simarjot and Daxh Khatreja.
2.Conducted a session on Hands on Tableau taken by Daxh Khatreja.

IEEE

HIGHLIGHTS OF THE DEPARTMENT

ACHIEVEMENTS OF STUDENTS

1.**Pradeepto Sarkar**, student of CSE-B fourth year bagged first position in a 3-Month long MLH Fellowship Software Engineering Batch and he is among the 120 fellows selected globally.

2.**Sezal Sharma**, student of CSE-C third year bagged the title of Miss Intercontinental India Runner up 2023 at national pageant Miss Celeste India.

3.**Karan Kumar**, student of CSE B 2nd year bagged second position in a Hackathon organised by Akhilesh Das Gupta Institute of Technology and Management.

4.**Aanya Sharma**, student of CSE A 2nd year bagged second position in a Hackathon organised in College.

5.**Khushank Singh Panwar**, student of CSE C 3rd year bagged second position in a cultural event held at Talkatora Stadium, Delhi.

6.**Gauransh Goel**, student of CSE A second year bagged third position in a Hackathon held online.

7.**Sezal Sharma**, student of CSE-C third year secured runner-up position in the Miss Rajasthan competition among 5000 talented contestants. She was felicitated by Dr. Jagdish Chandra (CEO of Bharat 24 News Channel and First India) and at Arya group of colleges.

8.**Rishi Jha, Vaibhav Goyal** and **Vinit Jain** students of third year CSE department qualified in the ICPC (International Collegiate Programming Contest) preliminary round, securing spots in Chennai Region (AIR 83) and Amritapuri Region (AIR 89) out of 1800 teams.

9.**Ritesh Mishra**, student of CSE B 2nd year showcased prowess in the Healthcare field at HackwithMAIT4.0. His team(Balidan), among 280 teams, secured a coveted spot in the top 20 during the 24-hour hackathon held in November. Their innovative application of AIML in healthcare marked a commendable achievement in this competitive event.

10.**Vansh,** student of CSE-C third year finished in top 3 in Pitch Desk Competition in Tinkering Bootcamp held at IIT Jammu on 6th and 7th December, 2023.

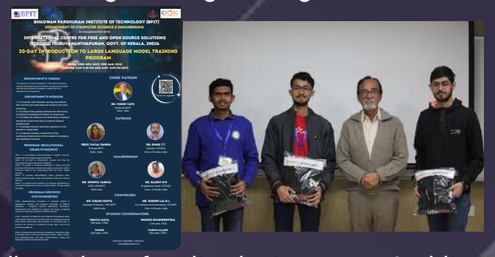
ACHIEVEMENTS OF FACULTY

1) **Dr.Shweta Taneja** was reviewer of International Journal of Cognitive Computing in Engineering, by Elsevier.

2) **Dr.Charu Gupta** got invitation for "AIMLSNLPC 2023" for Guest to lecture on "Sentiment Analysis using Genetic Algorithms" scheduled on 9th December 2023.

3) **Ms.Vishakha Sehdev** was session chair in International conference on Paradigms of Communication, Computing and Data analytics during April 2023 organised by ADGITM.

4) **Dr.Shweta Taneja** was speaker on topic - "Reliable and Robust modelling of AI in healthcare" on 16th May 2023 in One Week, Faculty Development Program on "Role of Computational Intelligence in Society" from 15th May to 20th May 2023 held by Bharati Vidyapeeth's College of Engineering.



5) Ms.Ayushi delivered a faculty lecture on Architecture and applications of cloud at BPIT.

6) Dr.Charu Gupta (FOSS CELL, Department of Computer Science and Engineering, In collaboration with ICFOSS, Govt. Of Kerala) organised a 30 Day online Training on "Large Language Models" from 23Nov 2023 to 3rd Jan 2024.

7) Dr.Suman Arora was session chair in 41st National conference on Recent trends in 5G technology & Artificial Intelligence on 9th December 2023 organised by Tecnia Institute of Advanced Studies.

8) Dr.Shweta Taneja received certificate of appreciation for paper titled "A Novel Customized Cryptotoken Based Approach Using Blockchain" as Best Paper in Track no. 4A successful completion of the 1st International Conference on Sustainable Emerging Innovations in Engineering and Technology (ICSEIET-23) held on 14th & 15th September, 2023 organised by Department of Electronics & Communication Engineering, ABES Engineering College, Ghaziabad, UP, India.

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STUDENT CORNER

QUANTUM COMPUTING: UNLOCKING THE FUTURE OF COMPUTING POWER

In the ever-evolving landscape of technology, quantum computing stands at the forefront, poised to revolutionize the capabilities of traditional computers. Unlike classical computers that use bits to represent information as either 0 or 1, quantum computers leverage quantum bits or qubits, which can exist in multiple states simultaneously due to the principles of quantum mechanics.

The inherent parallelism and computational power of quantum computers hold the potential to solve complex problems that are practically intractable for classical computers. One such example is in the realm of cryptography, where quantum computing threatens to break conventional encryption methods while simultaneously offering new cryptographic solutions that are fundamentally secure. Moreover, quantum computing shows promise in advancing fields like drug discovery and material science. Its ability to simulate molecular interactions at an unprecedented level could accelerate the development of new medicines and materials by modeling their behavior accurately, significantly reducing research and development timelines.

However, harnessing the power of quantum computing comes with its own set of challenges. Qubits are highly fragile and susceptible to disturbances, leading to errors in computations. Researchers are exploring methods to mitigate these errors through error correction techniques and better qubit designs to ensure the reliability of quantum computations.

Another hurdle is scalability. Currently, quantum computers consist of a relatively small number of qubits. Scaling up these systems while maintaining qubit coherence and minimizing errors poses a significant technical challenge. Researchers and engineers are diligently working to overcome these barriers to unlock the full potential of quantum computing.

Despite these challenges, the strides made in quantum computing herald an era of unparalleled computational power and transformative technological advancements. As students in the realm of technology, understanding the principles and potential applications of quantum computing could pave the way for groundbreaking innovations, shaping the future of computing and problem-solving in diverse domains.

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