ARTIFICIAL INTELLIGENCE & DATA SCIENCE

ABOUT DEPARTMENT:

The Department of Artificial Intelligence & Data Science (AI & DS) is the youngest branch of Global Academy of Technology, established in 2020. The department has fostered excellence in undergraduate education while advancing research that pushes the boundaries of Machine Learning and Artificial Intelligence. The curriculum of the AI&DS program is designed to provide necessary basics in computer science engineering with specialized knowledge and skills in Artificial Intelligence, Machine Learning, Deep Learning, Data Mining, Big Data and Natural Language Processing. The department comprises of faculty members with long academic experience in the

domain and pursuing research activities in all related disciplines of Artificial Intelligence and Data Science.

The key highlights of AI & DS are: Research oriented teaching, Student centric through early internship opportunities in IITs, NITs and in IIITs, promoting innovative research and development in Artificial Intelligence and Data Science and its allied fields in collaboration with industries. As a result of this students are actively involved in research publications and Mini Projects. Department of AI & DS focuses on to prepare the students for solving real-world problems using AI by imparting engineering skills through experiential learning mode and to provide a pleasant environment in pursuit of excellence by keeping high personal and professional values and ethics.

HOD'S MESSAGE:

Dr. Ashwini K
Professor & Head, AI&DS

Welcome to the Department of Artificial Intelligence and Data Science Engineering!

I am Exhilarated to extend my warmest greetings to all of you. It is an honor to lead such a dynamic and pioneering department that plays a pivotal role in shaping the future of technology and innovation.

Our department stands at the intersection of cutting-edge technologies, data-driven insights, and creative problem-solving. As we embark on this journey, I am committed to fostering an environment of academic excellence, research advancement, and holistic growth. Our mission is not only to impart knowledge and skills but also to instill a passion for innovation that will enable our students to thrive in the ever-evolving landscape of artificial intelligence and data science.

In the era of data-driven decision-making, the potential for our graduates to make a significant impact is immense. Whether it's in healthcare, finance, manufacturing, or any other field, the skills they acquire here will be in high demand. As professionals in Artificial

Intelligence and Data Science Engineering, they will be the architects of innovation, using data to shape a smarter and more efficient world.

I am excited about the opportunities that lie ahead and I am confident that, together, we will achieve remarkable feats in education, research, and innovation. I intend to make Department of Artificial Intelligence and Data Science Engineering at Global Academy of technology a beacon of excellence and a hub of transformative ideas.

STUDENT FORUM:

ESPOIRE CLUB:

ESPOIRE, the AI&DS Student Forum, is a dynamic platform designed to empower students, foster leadership, and drive academic excellence. With a core committee comprising a President, Vice President, Secretary, Treasurer, Communication Coordinator, and Design Coordinator, the forum aims to create a vibrant and inclusive community within the department.

By delegating responsibilities and encouraging collaboration, ESPOIRE seeks to equip students with essential skills, from strategic planning and financial management to communication and creative design. Through a variety of initiatives and events, the forum will provide opportunities for students to connect, learn, and grow together, ultimately contributing to the department's reputation as a center of AI&DS innovation.

STUDENT CLUB ACTIVITIES:

IPL AUCTION:

ESPOIRE, the dynamic student forum of AI&DS, successfully hosted an exhilarating IPL auction event. Designed to test students' financial acumen and strategic thinking, the event transformed the college campus into a high-stakes bidding arena. Participants were challenged to assemble their dream IPL teams within a limited budget, mirroring the real-world complexities of investment and resource allocation.

The event comprised three rounds, escalating in intensity and competition. The initial quiz round assessed participants' IPL knowledge, setting the stage for the subsequent auction rounds. With each bid, students honed their strategic abilities, balancing passion with prudence. The grand finale witnessed a fierce battle for top talent as participants employed various tactics to outsmart their rivals.

Beyond the thrill of competition, the event fostered a collaborative and engaging atmosphere, allowing students to network and learn from one another. The ESPOIRE IPL Auction was a solid success.

VALUE ADDED PROGRAMS:

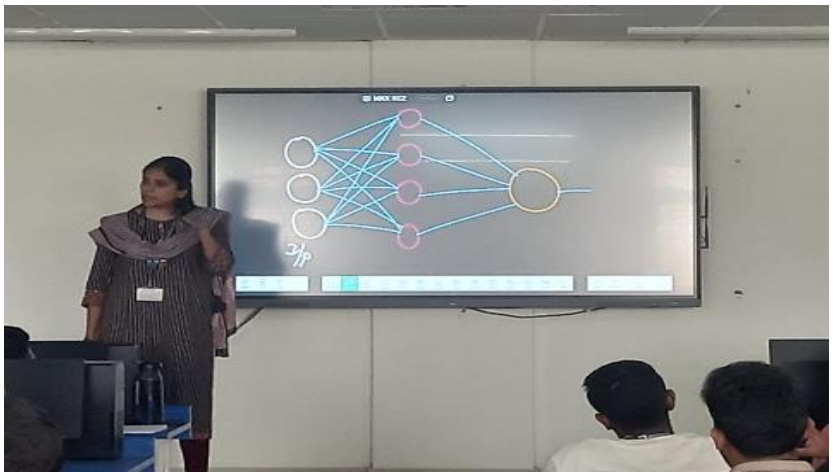
DEEP LEARNING ALGORITHMS:

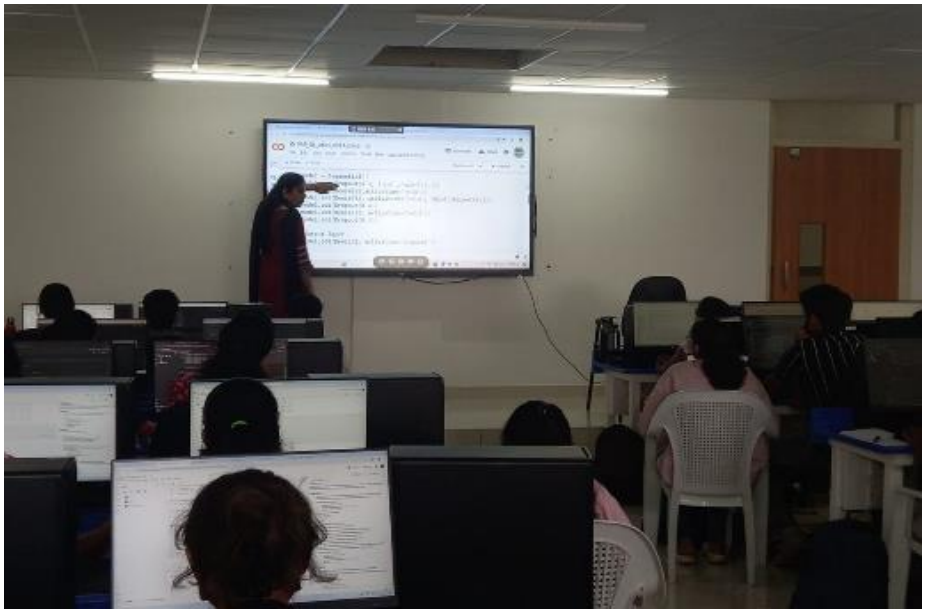
A Comprehensive 2 week value added program "Deep Learning Algorithms**"** was conducted on

Week – 1: 03-06-2024 to 06-06-2024

Week – 2: 24-06-2024 to 28-06-2024

The main aim of the VAP was to provide comprehensive training and practical knowledge on advanced AI techniques, specifically focusing on deep learning. The program delivered a well-rounded educational opportunity, covering theoretical concepts with hands-on sessions, spanning four hours fifteen minutes of intensive learning per day. The central goal of the VAP was to equip participants with a deep understanding of various deep learning algorithms and methodologies. The core of the program consisted of a series of lectures and hands-on workshops. Topics covered Introduction to Neural, Perceptron Learning rule, Activation Functions, and Loss Functions used in NN, Implementation of ANN, and Introduction to CNN, Explainable AI Methods, Recurrent Neural Networks (RNN), Long Short Term Memory (LSTM) and Hands-on using GAN. A total of 83 participants joined the VAP.





GENERATIVE AI & DIFFUSION MODELS:

A Comprehensive 1 week value added program “Generative AI and Diffusion Models” was conducted on 6th to 11th November 2023

The program delivered a well-rounded educational opportunity, covering theoretical concepts with robust mathematical foundations and immersive hands-on sessions, spanning six hours daily for intensive learning. The central goal of the VAP was to furnish participants with a thorough grasp of Generative AI and Diffusion Models. It aimed to empower educators and researchers by imparting the knowledge and skills essential for teaching and conducting research in this rapidly advancing field. Topics covered are Introduction to Generative AI, Diffusion process, Face Recognition, face classification using FaceNet through Hands-on. A total of 49 participants attended the VAP.

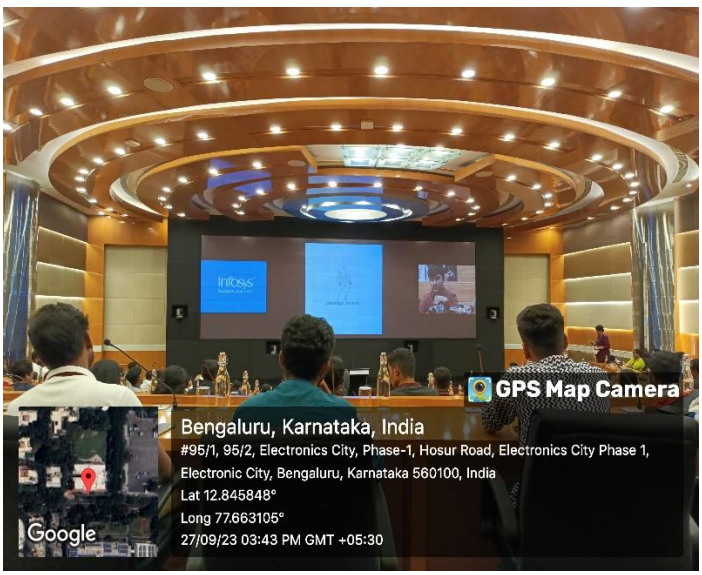
MACHINE LEARNING ALGORITHMS

A Comprehensive 6 days value added program “Machine learning algorithms” was conducted on 30th January to 6th February 2024.

The primary objective of the VAP was to equip participants with a deep understanding of various machine learning algorithms and methodologies. Through a structured curriculum and interactive learning modules, the program aimed to empower participants with the knowledge and skills required to effectively apply machine learning techniques in real-world scenarios. The VAP had a total attendance of 81 participants. Upon the successful completion of the program, a project on either Classification or Regression problem statement and a Conference paper participants will be awarded a participation certificate, acknowledging their proficiency in Machine Learning.

DEPARTMENT EVENTS

INDUSTRIAL VISIT AT INFOSYS:



25 students of 5th Sem AI&DS visited Infosys Limited office at Electronic City on 27th September 2023 for the event titled "Celebrating Tech Grand Finale" with the mission of facilitating prospective young engineers to explore cutting edge technology through kiosks and also game changing innovation through projects performed.

TCS Tech Bytes:

The "TCS Tech Bytes" event at Global Academy of Technology aimed to enhance engineering students' understanding of technology by exploring its applications and emerging trends. Held on March 5, 2024, in the college auditorium, the event provided opportunities for skill development through quizzes, discussions, and networking. By recognizing top performers and fostering collaboration, the event motivated students and prepared them for the evolving tech industry. Utilizing college resources, the event successfully enriched participants' knowledge and equipped them for future success in the technology sector.

PLACEMENT TRAINING:

The department implemented a comprehensive placement training program aimed at equipping students with the essential skills and confidence required for professional success. The training adopted a holistic approach encompassing personal and professional development. A significant component of the program focused on enhancing soft skills. Through interactive sessions and practical exercises, students were introduced to effective communication, interpersonal skills, and teamwork. The training emphasized the importance of body language, active listening, and public speaking to foster confident communication.

Building self-confidence was another key objective. Personality assessments and self-reflection exercises helped students understand their strengths and areas for improvement. Trainers provided strategies to overcome self-doubt and cultivate a positive mindset. To enhance problem-solving and analytical abilities, the training incorporated basic mathematical concepts and aptitude-building exercises. These sessions sharpened quantitative skills and developed logical reasoning and critical thinking capabilities.

Importantly, the program encouraged self-exploration. Through activities and group discussions, students reflected on career aspirations, values, and personal goals. This introspection facilitated career path clarity and developed a clear vision for the future. Overall, the placement training was designed to produce well-rounded graduates equipped with the necessary skills and confidence to excel in their chosen professions.

FRESHERS DAY:

Freshers' Day – 2024, for the Department of Artificial Intelligence and Data Science at Global Academy of Technology is a specialized event tailored to introduce new students to the world of AI and data science. Faculty and department heads welcomed the new students, outlining the program structure, curriculum, and key academic expectations. An introduction to the department's resources, research facilities, and the latest trends in AI and data science. Hands-on sessions or demonstrations related to AI tools, data analysis techniques, and emerging technologies. Meet-and-greet sessions with senior students, faculty members, and industry professionals to discuss academic and career opportunities. A guided tour of the facilities specific to the AI and data science department, including labs and resource centres. Engaging activities to help students bond and integrate into the college community. This event aims to

give new students a comprehensive introduction to their field of study, build connections with peers and faculty, and set a positive tone for their academic journey.

FAREWELL:

The farewell event for 2020 Batch at the Department of Artificial Intelligence and Data Science at Global Academy of Technology is a memorable occasion celebrating the achievements and contributions of graduating students. Faculty, staff, and fellow students share reflections and appreciation for the seniors' hard work and accomplishments over their academic journey. Presentation of awards or certificates to honor outstanding achievements, research contributions, and leadership roles within the department. Entertainment such as performances, skits, or videos that highlight memorable moments and celebrate the seniors' time at the college. Time for students, faculty, and guests to interact, reminisce, and make lasting connections.

Presentation of mementos or gifts as a token of appreciation and to commemorate the students' time at the college. The event is designed to provide a heartfelt send-off, celebrate the graduates' successes, and offer a chance for reflection and farewell as they embark on their next endeavors.

FACULTY ACHIEVEMENTS:

As a part of the Advanced Technology Certified Faculty [ATCF] project challenge on Cloud Computing with Big Data, conducted by Wipro Technologies- Talent Next Team, team headed by **Mr. Anand Panduranga, Assistant Professor, Artificial Intelligence and Data Science** was recognized as the Best Team (Rank 1) among 24 groups comprising of 90 professors from 41 institutions.

Prof. Sheeba S, Assistant Professor, Artificial Intelligence and Data Science has demonstrated exceptional dedication and perseverance by successfully completing series of NPTEL courses, under a given vertical. This achievement showcases her commitment to lifelong learning and her ability to excel in academic pursuits. Congratulations to Prof. Sheeba S, on this outstanding accomplishment!

STUDENT ACHIEVEMENTS:

Vijay M R participated in Acharya habba 2k24 at Acharya Institute of technology on 28th April 2024 and won 1st prize in Mono acting competition.

Akshata Pandit participated in Acharya habba 2k24 at Acharya Institute of technology on 28th April 2024 and won 2nd prize in Mono acting competition.

Students won 2nd position at the Young UpStart Enterpreneurial Design Thinking Workshop held in SAP Labs India.

1 Student of the 2021 batch won the Best Social Impact award in Digital Nurture Technoverse 2023 organized by Cognizant and got an Internship opportunity at Cognizant.

Project name: **CodeGat Mavericks**, Team member: Ms. Chandana G

ARTICLES AND ARTWORKS

Spandana G
1GA22AD054
Branch: AI & DS
Captions: "Birds soar in the dance of design."
"Uncaged and unbound."
"The stillness of the enlightened soul."