Sri SAI RAM ENGINEERING COLLEGE

An Autonomous Institution

West Tambaram, Chennai - 44

www.sairam.edu.in

ARTIFICIAL INTELLIGENCE

AND

DATA SCIENCE

NEWSLETTER

July 2023, Volume 2, Issue 7

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DEPARTMENT HoD: Dr. Swagata Sarkar

Vision / Mission of College

Vision

To emerge as a "Centre for excellence" offering Technical Education and Research Opportunities of very high standards to students, develop the total personality of the individual, and instil high levels of discipline and strive to set global standards, making our students technologically superior and ethically strong, who in turn shall contribute to the advancement of society and humankind.

Mission

We dedicate and commit ourselves to achieve, sustain and foster unmatched excellence in Technical Education. To this end, we will pursue continuous development of infrastructure and enhance state-of-the art equipment to provide our students a technologically up-to date and intellectually inspiring environment of learning, research, creativity, innovation and professional activity and inculcate in them ethical and moral values.

Quality Policy

We at Sri Sairam Engineering College are committed to build a better nation through Quality Education with team spirit. Out students are enabled to excel in all values of Life and become Good Citizens. We continually improve the System, Infrastructure and Services to satisfy the Students, Parents, Industry and Society.

VISION / MISSION OF DEPARTMENT

Vision

To emerge as a "Centre of Excellence in the field of Artificial Intelligence and Data Science", The Department is committed to inculcate discipline, offering best Technical Education and Research Opportunities and ethically strong to meet the global challenges, who in turn shall contribute to the advancement and welfare of the society.

Mission

- To produce students with a sound understanding of the fundamentals of the theory and practise of Artificial Intelligence, Machine Learning and Data Science.
- To enable students to become leaders in the Industry and Academia Nationally as well as Internationally.
- To meet the pressing demands of the nation in the areas of Artificial Intelligence and Data Science.

EPITOME OF OUR MISSION

The Department of Artificial Intelligence and Data Science emerged in the year 2020 in Sai Ram Institutions with the intake of exiguous students. It has now evolved quintessentially with an admirable admission of about 60 aspiring students in 2020, 120 in 2021, 180 in 2022 and gradually increasing each year, joining hands with a dedicated team of erudite faculty.

GUEST LECTURE ON IEEE SIGHT

Dept of Artificial Intelligence and Data Science hosted a successful guest lecture on IEEE SIGHT by Mr. Kharthick Rham M, a 3rd-year student in the Department of Artificial Intelligence and Data Science. The lecture aimed to highlight the importance of technology in addressing humanitarian challenges and promoting sustainable development. Key highlights included an introduction to IEEE SIGHT, showcasing ongoing projects, encouraging student involvement, emphasizing innovation and collaboration, and a Q&A session. The event inspired students and faculty to explore the potential of technology for social impact and demonstrated the college's commitment to nurturing socially responsible technocrats. Gratitude was expressed to Mr. Kharthick Rham M, the departments, and all participants for making the lecture insightful and memorable.

GUEST LECTURE ON BASIC PHOTOSHOP

Department of AI&DS in collaboration with Marine Technology Society (MTS), organized a guest lecture on "Basic Photoshop" conducted by Mr. Abhinav Suresh, a 3rd-year student in Artificial Intelligence and Data Science. The lecture aimed to introduce students to the fundamental concepts of Adobe Photoshop and its relevance in various fields,

particularly in the context of AI&DS and marine technology. Mr. Abhinav covered essential topics like image editing, layers, masks, selection tools, filters, typography, photo retouching, and photo restoration. The interactive session allowed students to engage in practical exercises and clarify doubts. Real-life examples showcased the software's potential beyond graphic design, inspiring students to explore its applications in their respective fields. The collaboration among departments facilitated a successful and enriching learning experience. Gratitude was expressed to Mr. Abhinav Suresh, the organizing departments, and the Marine Technology Society (MTS) for their efforts in making the guest lecture insightful and engaging.

AICTE OFFICE VISIT AND MEET UP WITH KUNAL JEET SINGH

In an effort to gain deeper insights into the realm of technical education and explore new avenues for growth, a delegation from our esteemed institution had the esteemed privilege of visiting the All-India Council for Technical Education (AICTE) office. The delegation, led by the Head of Department (HOD), Ms. Swagatha, along with a group of enthusiastic students, embarked on this insightful journey with a fervent zeal for knowledge and innovation.

The visit held great significance as AICTE, being the apex body governing technical education in India, plays a pivotal role in shaping policies, ensuring quality, and fostering advancements in the domain. The delegation's objective was to gain a comprehensive understanding of

AICTE's functioning and initiatives, paving the way for potential collaborations and enhancing the quality of education at our institution.

The visit commenced with a warm welcome from AICTE officials, who, with gracious hospitality, provided a comprehensive presentation on their ongoing projects and future plans. The interactive session that ensued was marked by active participation from our students and HOD, who seized the opportunity to pose thought-provoking questions and engage in fruitful discussions. The exchange of ideas, experiences, and perspectives proved to be mutually enriching, and it shed light on the various aspects of AICTE's role in fostering technical education in the country.

One of the primary highlights of the visit was the detailed discussion on the accreditation process, a critical aspect of maintaining and elevating the standard of technical institutions. The delegation gained valuable insights into the meticulous evaluation criteria employed by AICTE and the myriad benefits that accreditation bestows upon educational institutions. The emphasis on continuous improvement and the pursuit of excellence resonated profoundly with our delegation, instilling a renewed sense of

commitment to upholding quality standards.

Moreover, the delegation engaged in meaningful deliberations with AICTE officials on the imperative of forging strong bridges between academia and industry. The significance of industry-academia collaboration became evident as AICTE officials expounded on the pivotal role it plays in shaping well-rounded professionals equipped with practical skills and industry-relevant knowledge. The visit strengthened our resolve to foster robust industry ties and provide our students with experiential learning opportunities.

The visit also offered valuable insights into AICTE's initiatives for skill development. AICTE's relentless efforts in promoting skill-oriented programs across the nation left a lasting impression on our delegation. The understanding of various schemes aimed at enhancing employability and nurturing the talents of young minds underscored the importance of skill-based training in today's dynamic job market.

The zenith of the visit was the unforgettable meeting with Mr. Kunal Jeet Singh, an eminent personality and the Director of AICTE. Mr. Singh's illustrious career and visionary outlook served as an inspiration to the delegation. His eloquence and profound understanding of the future of technical education captivated the audience. He emphasized the significance of continuous learning in an era characterized by rapid technological advancements. The meeting left an indelible mark on the students' minds, fueling their aspirations to be adaptable and embrace interdisciplinary learning.

In conclusion, the AICTE office visit and the encounter with Mr. Kunal Jeet Singh proved to be an intellectually stimulating and inspiring experience for our delegation. The knowledge acquired during the visit will be instrumental in enhancing the quality of education at our

institution and fostering a dynamic learning environment. We extend our heartfelt gratitude to AICTE for graciously hosting us and providing a platform for mutual learning. Special thanks to Mr. Kunal Jeet Singh for sharing his invaluable insights, which will undoubtedly shape the future of technical education and contribute to the holistic development of our students. As we look ahead, we aspire to leverage this invaluable experience to create a positive impact on the technical education landscape in India.

NPTEL AND WORKSHOP CERTIFICATE

The NPTEL+ Workshop on "Introduction to Language Models," completed by faculty member Mr. Sivamurugan S, was a comprehensive online program conducted by Professor

NPTEL+ Workshop Certificate

This certificate is awarded to

SIVAMURUGAN S

for successfully completing the online workshop

Introduction to Language Models

by Prof. Ramaseshan Ramachandran, CMI

Date : 17th - 21st July, 2023

Verify

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Ramaseshan Ramachandran from CMI. The workshop aimed to provide a deep understanding of language models and their applications in natural language processing and artificial intelligence. The well-structured curriculum covered various types of models and their practical uses. Mr. Sivamurugan S successfully completed all assessments and received the NPTEL+ Workshop Certificate, demonstrating dedication and enthusiasm. The workshop's knowledge is expected to contribute to his professional growth and advancements in language processing technologies. Overall, the workshop facilitated skill development and knowledge enhancement through flexible online learning.

INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN ENGINEERING AND COMPUTER APPLICATIONS – 2023 CERTIFICATE OF APPRECIATION

Dr. Swagata Sarkar, the Head of the Department of AI&DS at Sri Sairam Engineering College, played a vital role as the session chair at the "International Conference on Recent Advances in Engineering and Computer Applications (ICRAECA 2023)." The conference, organized by LJ School of Computer Applications in association with IFERP, aimed to facilitate knowledge exchange among researchers, academicians, and industry professionals. Dr. Swagata's engaging inaugural address set the tone for the event, emphasizing collaboration and exploration of emerging trends in engineering and computer applications. Her expertise and dedication ensured the conference's success and meaningful interactions among participants, leaving a positive impact in the academic and research community.

NAWIN VISWAJITH B – IDEX INTERNSHIP

Nawin Viswajith B, 2nd year student of AI-DS department from Sri Sai Ram Engineering College has successfully completed the Innovate4Defence (i4D) Internship program.The 45-day internship program was conducted under the auspices of iDEX DIO (Innovations for Defence Excellence – Defence Innovation Organisation).

This report highlights the objectives of the i4D program, Nawin Viswajith B's contribution, and the benefits gained through his participation.

Innovate4Defence (i4D) is an initiative launched by iDEX DIO, a Government of India initiative to promote innovation and research in the defense sector. The i4D program aims to engage young talents and students from engineering and technology backgrounds to contribute their innovative ideas and skills to address challenges faced by the defense sector. Through this 45-day internship program, participants are encouraged to work on real-world defense-related projects, fostering a culture of innovation and problem-solving.

Nawin Viswajith B, a motivated and talented second-year student from the AI&DS department of Sri Sai Ram Engineering College, was selected to participate in the i4D Internship Program. Nawin's passion for technology and keen interest in exploring applications in the defense sector made him an ideal candidate for this prestigious opportunity.

Participating in the i4D Internship Program proved to be a transformative experience for him.Nawin had the opportunity to apply his theoretical knowledge to real-world defense-related challenges, enhancing his problem-solving abilities.The internship fostered collaboration with other participants and mentors, providing Nawin with exposure to diverse perspectives and teamwork.Nawin interacted with experts and professionals in the defense and technology sectors, expanding his professional network.

In conclusion, Nawin Viswajith B's successful completion of the Innovate4Defence (i4D) Internship Program reflects his dedication, skills, and commitment to the field of AI&DS. His outstanding contributions to the project exemplify the potential of young talents to drive innovation and solve real-world challenges. The experience gained through this internship is expected to play a pivotal role in Nawin's future academic and professional endeavors.We extend our heartfelt appreciation to Nawin Viswajith B for his exceptional performance and representation of Sri Sai Ram Engineering College during the i4D Internship Program.
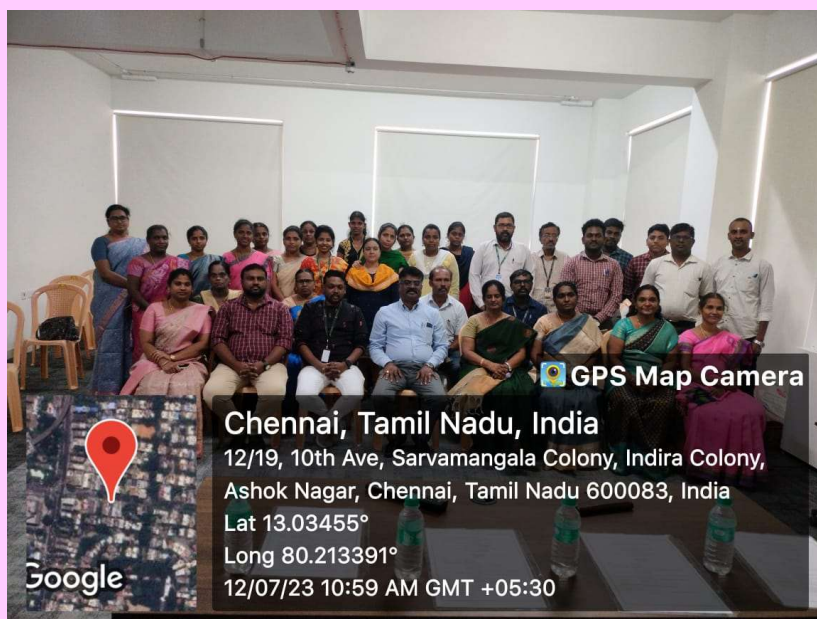
UNIVERSAL HUMAN VALUES TRAINING

On 10th July 2023, a 3-day face-to-face Introductory Faculty Orientation Program (FOP) on Universal Human Values (UHV) organized by Sri Sai Ram Engineering College. The event took place at Smart

Classroom-II from 10th July 2023 to 12th July 2023. The program was an AICTE (All India Council for Technical Education) approved event conducted in association with the UHV Cell. The primary objective of the Introductory FOP on Universal Human Values was to sensitize and equip faculty members with a deeper understanding of the significance and implementation of Universal Human Values in higher education institutions. The program aimed to emphasize the integration of ethical values, empathy, and moral principles in the academic environment and the development of students.

The 3-day FOP was meticulously planned with a well-structured agenda that included various sessions, workshops, and interactive activities. The event commenced with an inaugural ceremony, featuring addresses by dignitaries, including the college principal, representatives from the AICTE, and the UHV Cell. An overview of the concept of Universal Human Values was presented, highlighting the importance of integrating values such as integrity, compassion, and respect in academic settings. The second day focused on interactive workshops and group activities. Faculty members actively engaged in discussions, case studies, and role plays to understand practical scenarios where UHV could be applied. A special session was conducted to explore the ethical decision-making process, empowering faculty with tools to make informed and morally upright choices.

Eminent guest speakers, including experts from the UHV Cell, delivered insightful lectures on the role of educators in nurturing Universal Human Values among students. Faculty members were encouraged to share best practices and successful experiences in promoting UHV within the academic community. The program concluded with a valedictory ceremony, where participants received certificates of completion.
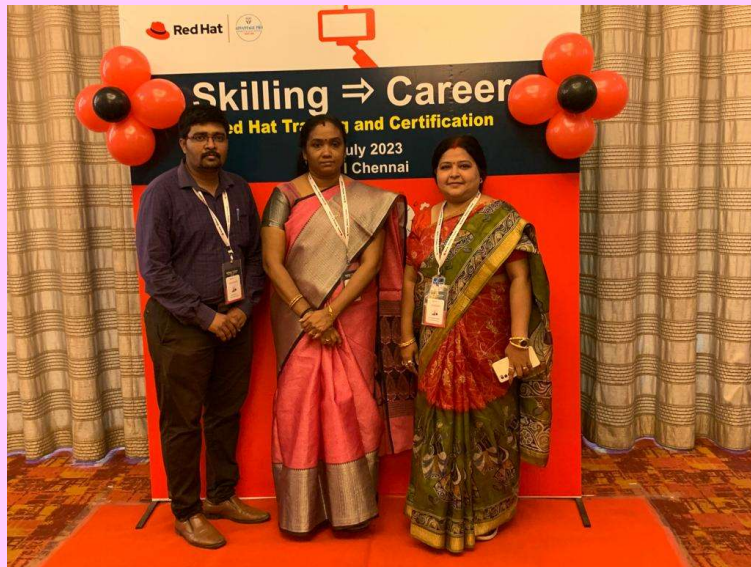
The Introductory FOP on Universal Human Values witnessed active participation from faculty members across various departments of Sri Sai Ram Engineering College. Feedback from the participants was overwhelmingly positive, with many expressing gratitude for the opportunity to enhance their understanding of UHV and its significance in their roles as educators.The 3-day FOP on Universal Human Values is expected to have a lasting impact on the participating faculty members. The insights gained from the program will enable them to integrate UHV principles effectively in their teaching methodologies and interactions with students. It is anticipated that this will contribute to the holistic development of students and foster a values-driven academic community.

The 3-day face-to-face Introductory FOP on Universal Human Values was a well-organized and meaningful event that successfully acquainted faculty members with the essence and practical application of UHV. The collaboration between Sri Sai Ram Engineering College and the UHV Cell in conducting this AICTE approved program exemplifies the commitment towards instilling ethical values and empathy in the education system.

REDHAT SKILLING PROGRAM AT HOTEL HILTON

Dr. Swagata Sarkar, Head of Department (hod) of AI&DS department, Sri Sairam engineering college was invited to visit the Red Hat Skilling Program held at Hotel Hilton. The program aimed to provide participants with comprehensive training on various Red Hat technologies, fostering a skilled and knowledgeable workforce. And the program was based on empowering participants with essential skills and knowledge related to open-source technologies, particularly focusing on Red Hat solutions. The program aimed to provide attendees with hands-on training, practical experience, and industry-relevant expertise. The skilling program was organized in collaboration with Red Hat Inc. and hosted at Hotel Hilton.

Dr. Swagata Sarkar's visit was to observe the effectiveness and relevance of the Red Hat Skilling Program in equipping participants with industry-specific skills. Additionally, she aimed to explore potential partnerships between the department and Red Hat to enhance collaboration and promote technological advancements. This initiative has undoubtedly contributed to the professional growth and development of all the participants, making it a commendable endeavour in promoting open-source education and Red Hat technologies.

AR/VR STARTUP PRESENTATION AT ENTREPRENEURSHIP DEVELOPMENT AND INNOVATION INSTITUTE, TAMILNADU

The students of the artificial intelligence and data science department of Sri Sairam Engineering College got a chance to participate in an AR/VR startup presentation, held at the Entrepreneurship Development and Innovation Institute (EDII) in Tamil Nadu. The presentation aimed to showcase the innovative ideas and solutions offered by a promising AR/VR startup. The event was organized to encourage entrepreneurship and foster a culture of innovation within the region.

The AR/VR startup presentation at EDII brought together entrepreneurs, investors, industry experts, and aspiring individuals interested in emerging technologies. The event was a platform for the AR/VR startup to showcase their unique products, technologies, and business models. The presentation aimed to highlight the startup's potential, impact, and scalability in the AR/VR industry. The startup's

presentation was impressive, showcasing their passion for AR/VR technology and the potential impact of their solutions in different industries. The event not only inspired aspiring entrepreneurs but also created opportunities for networking and collaboration among industry stakeholders.

We extend our appreciation to the Entrepreneurship Development and Innovation Institute for organizing this insightful event and providing a platform for AR/VR startups to showcase their innovations. Additionally, we thank the AR/VR startup team of AI&DS department of Sri Sairam Engineering College for their engaging presentation and wish them the best of luck in their entrepreneurial journey. This event has undoubtedly contributed to the promotion of innovation and entrepreneurship in Tamil Nadu and beyond.

ICT ACADEMY CERTIFICATE OF PARTICIPATION

Dr. Rehash Rushmi Pavithra, an esteemed faculty member from the Department of AI&DS at Sri Sai Ram Engineering College, actively participated in the 5-Day Faculty Development Program on Sales Force Administrator organized by ICT Academy. The program aimed to equip faculty members with Sales Force administration skills. Dr. Pavithra's dedication to staying updated with technological advancements and commitment to quality education was evident. The interactive program covered a wide range of topics, enhancing participants' practical knowledge. Dr. Pavithra's active engagement in the program showcases her dedication to continuous learning. ICT Academy's initiative bridges the industry-academia gap and empowers future professionals. Dr.
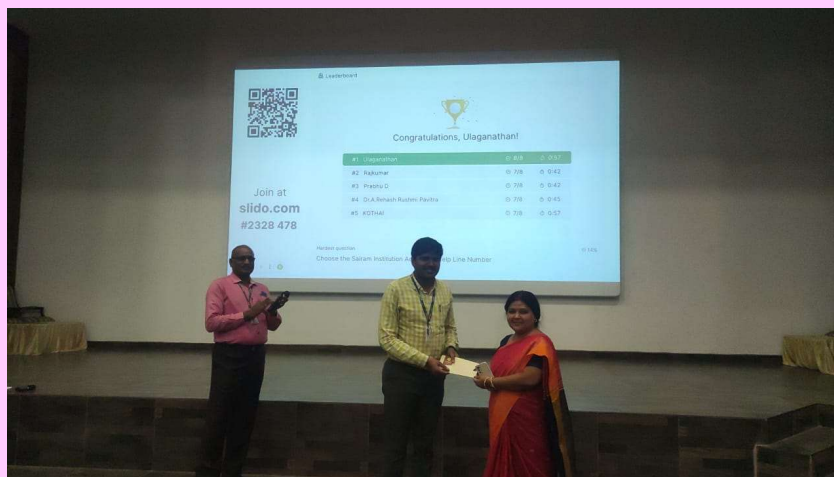
Pavithra received a Certificate of Participation, acknowledging her expertise in Sales Force administration.

STAFF AWARDED BY DR. SWAGATA SARKAR

Mr. Ulaganathan, an outstanding individual, was honoured with a prestigious award. Mrs. Swagata Sarkar, the Head of the Artificial Intelligence and Data Science Department, presented the award to Mr. Ulaganathan in recognition of his victory. In his acceptance speech, Mr. Ulaganathan expressed his gratitude to the department, the college, and especially Mrs. Swagata for recognizing his efforts. He attributed his success to the support and encouragement he received from his mentors, peers, and family.

Mr. Ulaganathan emphasized the importance of continuous learning, staying updated with the latest developments in the field, and nurturing a passion for research and innovation. He encouraged students to explore the vast possibilities in AI and Data Science and use their skills to address real-world challenges. The award ceremony honouring Mr. Ulaganathan was a momentous occasion for both the Sri Sairam Engineering College and the AI and Data Science Department. It served as a testament to the college's commitment to promoting excellence in technology and research.Mr. Ulaganathan's achievements have set a high standard for the students and researchers in the AI and Data Science domain, inspiring them to push the boundaries of knowledge and make meaningful contributions to society.The event concluded on a positive note, inspiring everyone present to embrace the spirit of innovation and contribute to the ever-evolving field of Artificial Intelligence and Data Science.

PALS VISIT

The Artificial Intelligence and Data Science (AI-DS) Department of Sri Sai Ram Engineering College organized a visit to PALS (Practical Artificial Intelligence and Learning Systems), a leading research institute

in the field of artificial intelligence and machine learning. The visit aimed to provide students with valuable insights into cutting-edge research and practical applications of AI in various domains. It also aimed to inspire and motivate students to pursue excellence in AI and DS (Data Science) and foster a deeper understanding of the potential impact of these technologies.

The primary objective of the visit was to expose the students of the AI-DS Department to PALS' state-of-the-art facilities and research initiatives in the field of artificial intelligence. Additionally, the visit aimed to provide students with opportunities to interact with renowned researchers, faculty members, and experts in the AI domain.An introductory session provided an overview of PALS, its mission, and its contributions to AI research.The visit commenced with presentations by PALS researchers and faculty members. The presentations covered a wide range of topics, including machine learning, natural language processing, computer vision, robotics, and AI ethics. The sessions were engaging and interactive, allowing students to ask questions and seek clarification on various AI-related subjects.

The participants were given a guided tour of the advanced research laboratories at PALS. They witnessed live demonstrations of AI applications and projects in progress. The hands-on experience in the labs provided a practical understanding of how AI technologies are developed and tested.PALS has collaborated with various industries on AI projects.A panel discussion was organized, where experienced researchers and industry experts discussed the future of AI, its potential impact on society, and the opportunities and challenges it presents. The

panelists shared valuable insights and career advice for aspiring AI and DS professionals.

The visit to PALS was a remarkable and insightful experience.It provided a platform for the participants to witness firsthand the cutting-edge research and innovation taking place in the AI domain. The exposure to practical applications and interactions with experts in the field have undoubtedly ignited a passion for AI and DS among the students, inspiring them to explore further and contribute to the development of these transformative technologies.The AI-DS Department expresses heartfelt gratitude to PALS for their warm hospitality and willingness to share their knowledge and expertise. The visit has undoubtedly contributed to the academic and professional growth of the participants, aligning them with the vision of becoming skilled and responsible AI professionals.

ENABLERS OF NEP-2020

The National Education Policy 2020 (NEP 2020) has ushered in a transformative era for the Indian education system, emphasizing holistic and multidisciplinary learning. The AI & DS Department at Sri Sairam Engineering College in Delhi, under the able leadership of HOD Dr. Swagata Sarkar, and with the support of Dean of Innovation, Mr. Rene Robin, and talented students like Hemanth from the 3rd year, has emerged as a beacon of innovation, embracing the enablers of NEP 2020 and propelling the department to greater heights.

At the heart of the AI & DS Department's success in implementing the NEP 2020 lies its commitment to fostering interdisciplinary education and promoting the seamless integration of artificial intelligence and data science into the curriculum. Dr. Swagata Sarkar, as the head of the department, has been instrumental in spearheading this transformation. Under her visionary guidance, the department has restructured the syllabus to emphasize experiential learning, collaborative projects, and research-based teaching.

One of the enablers of NEP 2020 embraced by the department is the promotion of critical thinking and problem-solving skills. Hemanth, a dedicated 3rd-year student, is a

shining example of the impact of this initiative. Through innovative projects and hands-on experiences, Hemanth has honed his ability to analyze complex problems and develop creative solutions. The department's focus on practical application of concepts has nurtured students like Hemanth to become skilled problem solvers and forward-thinking professionals.

Another key enabler of NEP 2020 that the AI & DS Department has embraced is the adoption of technology in education. Leveraging artificial intelligence and data

science tools, the department has introduced personalized learning pathways, adaptive assessments, and AI-driven analytics to monitor student progress. Mr. Rene Robin, the Dean of Innovation, has been instrumental in driving this transformation, fostering a culture of technological innovation within the department. This digital transformation has not only enhanced the learning experience but has also prepared students to thrive in an increasingly technology-driven world.

Furthermore, the department has actively promoted research and development in artificial intelligence and data science, encouraging students and faculty to engage in cutting-edge research projects. Dr. Swagata Sarkar's dedication to research excellence and her encouragement of students like Hemanth to participate in research activities have led to remarkable contributions in the field. The department's research focus aligns perfectly with the NEP 2020's emphasis on fostering a research-oriented approach to education.

In addition to academic

advancements, the AI & DS Department has embraced the NEP 2020's emphasis on holistic education. The department actively encourages students to participate in co-curricular and extracurricular activities, nurturing their all-round development. This holistic approach, combined with the support and guidance from dedicated faculty like Dr. Swagata Sarkar, has created a nurturing environment where students can excel not only academically but also personally and professionally.

In conclusion, the AI & DS Department at Sri Sairam Engineering College, Delhi, has embraced the enablers of NEP 2020 wholeheartedly. Under the visionary leadership of HOD Dr. Swagata Sarkar, with the support of Dean of Innovation Mr. Rene Robin, and the dedication of talented students like Hemanth, the department has become a pioneer in interdisciplinary education, technology integration, and research excellence. By actively implementing the enablers of NEP 2020, the department is empowering students to become competent and innovative AI and data science professionals, ready to tackle the challenges of the future.

THANK YOU