CYBERNETICS

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

ABOUT INSTITUTE
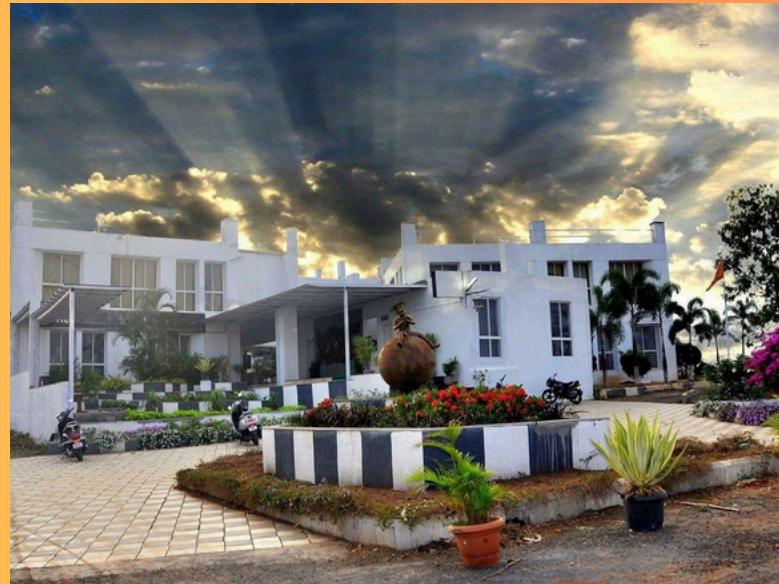
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About

Keystone School of Engineering, located in Pune, is a premier institution known for its dedication to excellence in engineering education accredited with "A" grade by National Assessment and Accreditation Council, approved by AICTE, New Delhi, DTE Maharashtra and affiliated Savitribai Phule Pune University .In the Outlook-ICARE 2024 rankings, Keystone School of Engineering is ranked 93rd in the "Engineering (Private)" category. Keystone School of Engineering in Pune, India is ranked 110th in the Times of India's 2024 B.E. / B.Tech. category. It is also ranked 13th among the Times-ranked colleges in Pune in 2024.This ranking reflects the school's performance in areas such as teaching, research, graduation outcomes, and creating a quality learning environment. Established with a vision to nurture future leaders in the field of engineering, Keystone stands out for its rigorous academic programs, state-of-the-art facilities, and commitment to holistic development.

One of the distinguishing features of Keystone School of Engineering is its faculty. Comprised of seasoned educators and industry experts, the faculty brings a wealth of knowledge and experience to the classroom. They not only impart theoretical knowledge but also provide practical insights derived from real-world scenarios, ensuring that students are well-prepared to tackle the challenges of the professional world.

Hands-on learning is emphasized at Keystone, with ample opportunities for students to engage in practical projects, internships, and industry collaborations. These experiences not only reinforce classroom learning but also provide students with valuable exposure to real-world engineering practices. Whether it's working on cutting-edge research projects or internships with leading companies, students at Keystone are encouraged to apply their knowledge in practical settings.

Institute Vision

" To emerge as a world class knowledge centre producing professionals of high academic acumen, committed to professional ethics, integrity & meaningfully contributing to national development "

Institute Mission

" To achieve & uphold high academic and professional standards by providing quality education and training. "

" To develop & encourage the originality, creativity, entrepreneurial spirit & professional leadership among the students. "

" To create an environment conducive to academic growth & career development for all students so as to achieve excellence in their chosen field."

" To respond to industry needs by offering curriculum relevant to changing needs of society & Industry. "

" To instill in students the belief in equality, dignity & the value of every person. "

"To provide active student development programs, curricular & extra-curricular to foster student participation in social development & nation building. "

" To create awareness in students about their obligation towards the society & the nation. "

ABOUT DEPARTMENT

About Department

The Artificial Intelligence and Data Science Department at Keystone School of Engineering stands as a beacon of excellence in the areas of technological innovation and academic pursuit. The department was formally Established In 2023. Through cutting-edge research, rigorous academic programs, and a commitment to ethical leadership, we aim to empower our students to become leaders and innovators in the ever-evolving fields of AI and data science. Our curriculum is designed to equip students with a deep understanding of foundational concepts in AI and data science, while also providing hands-on experience with state-of-the-art tools and technologies. Through project- based learning, internships, and industry collaborations, we ensure that our students are well- prepared to tackle real-world challenges and make meaningful contributions to their fields.

Beside academic excellence, we are committed to providing our students with ample opportunities for professional development and career advancement. Through partnerships with leading technology providers, we offer global certifications in AI and data science, giving our students a competitive edge in the job market. Our industry mentoring program pairs students with seasoned professionals who provide guidance, support, and valuable insights into the field. Furthermore, our students benefit from industry exposure through guest lectures, workshops, and networking events, allowing them to connect with potential employers and gain firsthand knowledge of industry trends and best practices.

Along with academics and career preparation, our department offers a vibrant extracurricular program that includes club activities, hackathons, and competitions. These activities provide students with opportunities to collaborate, innovate, and build connections with their peers and industry professionals. The Artificial Intelligence and Data Science Department at Keystone School of Engineering is dedicated to providing students with a world-class education, state-of-the-art facilities, and ample opportunities for professional and personal growth.

Department Vision

" To be recognized as pioneering Engineer force in Artificial Intelligence and Data Science driving innovation, shaping the future of intelligence, technologies and empowering Engineers and to create Globally competent ethical engineer professionals for National development "

Department Mission

" Advancing Innovation: Our mission is to spearhead innovation in Artificial Intelligence (AI) and Data Science, by conducting pioneering research, developing state-of-the-art technologies, and fostering a culture of creativity and exploration. " " Shaping the Future: We are dedicated to shaping the future of intelligent technologies through strategic initiatives, thought leadership, and collaborative partnerships, driving the adoption of AI and Data Science solutions that address societal challenges and drive economic growth. " " Empowering Individuals: Our mission is to empower individuals with the knowledge, skills, and resources needed to excel in AI and Data Science, providing world-class education, training, mentorship, and professional development opportunities that cultivate globally competent and ethically responsible engineering professionals. " " National Development: We are committed to contributing to national development by nurturing a talent pool of highly skilled AI and Data Science professionals, driving innovation- led growth, and fostering a culture of excellence in research, education, and industry collaboration to advance the nation's technological capabilities and competitiveness on the global stage. "

From Director's Desk

Dear Students, Faculty, and Staff,

It is with immense pride that I welcome you to this edition of our Artificial Intelligence and Data Science department newsletter. As we move forward in this rapidly changing technological landscape, our department continues to be a beacon of innovation, excellence, and collaboration.

Artificial Intelligence and Data Science are not just subjects of study; they are transformative forces that are shaping the future of industries and society at large. Our students, researchers, and faculty members are at the cutting edge of this transformation, working on groundbreaking projects and pushing the boundaries of what is possible with data and intelligent systems.

This newsletter provides a platform to celebrate our collective achievements, showcase notable projects, and highlight the dynamic learning environment we foster here. Whether it's through research, internships, or collaborations,

our department is committed to equipping our students with the tools and experiences they need to thrive in this exciting field.

As we look to the future, I encourage all of us—students, faculty, and staff—to continue striving for excellence, embracing challenges, and working together to contribute to the growing body of knowledge in AI and Data Science. Our work has the potential to impact not only the tech industry but society at large, and I am confident that together, we will continue to make a meaningful difference.

Thank you for your continued dedication and commitment to making our department a leader in Artificial Intelligence and Data Science education and research.
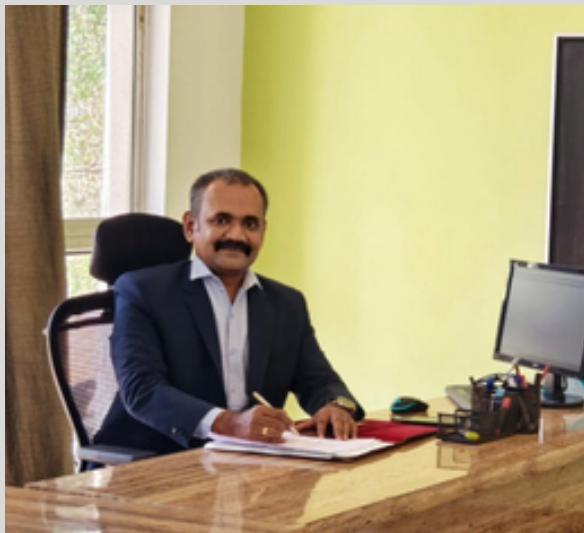
Warm regards,
Prof. Y. R. Soman

FROM PRINCIPAL'S DESK

From Principal's Desk

Dear Students, Faculty, and Staff,

It is with great pride and excitement that I extend my warm greetings to all of you in the Artificial Intelligence and Data Science department. As we continue to witness the rapid evolution of technology, it is clear that the fields of AI and Data Science are not only shaping the future of industries but also transforming the way we live and work.

Our department stands at the forefront of this technological revolution, empowering students with the knowledge, skills, and critical thinking necessary to excel in this dynamic field. The dedication of our faculty, combined with the enthusiasm and hard work of our students, is driving innovation and excellence within our programs.

This newsletter serves as a reflection of the remarkable achievements, ongoing research, and future endeavors within our department. It highlights the accomplishments of both students and faculty, shares insights from recent advancements in AI and Data Science, and offers a glimpse into the exciting opportunities that lie ahead.

I encourage each of you to stay engaged, continue to push boundaries, and work together to create a meaningful impact on the world. Our collective efforts will not only contribute to technological progress but also to the betterment of society as a whole.

Let's continue to innovate, inspire, and lead in the realm of Artificial Intelligence and Data Science.

Warm regards,
Dr. Sandeep Kadam

FROM HOD'S DESK

From HOD's desk

It is with great pride that I address you from the helm of the Artificial Intelligence and Data Science Department at Keystone School of Engineering. Our department stands as a testament to the boundless possibilities of technological innovation and academic pursuit.

At the heart of our vision lies a commitment to pioneering advancements in AI and data science while fostering a community dedicated to societal progress. Through relentless research, rigorous academic programs, and ethical leadership, we strive to empower our students to become leaders and innovators in their respective fields.

Our mission is anchored in providing a holistic education that combines theoretical knowledge with practical skills. Our curriculum is meticulously crafted to instill a deep understanding of foundational concepts alongside hands-on experience with cutting-edge tools and technologies. Through project-based learning, internships, and industry collaborations, we ensure that our students are not only equipped to face real-world challenges but also poised to make significant contributions.

Moreover, our excellent facilities, including advanced computing labs and dedicated research spaces, provide students with the resources they need to push the boundaries of what is possible. In addition to academic prowess, we are committed to nurturing professional development and career advancement. Through partnerships with industry leaders, we offer global certifications and mentorship programs that give our students a competitive edge in the job market. Our vibrant extracurricular program complements our academic offerings, providing students with avenues to collaborate, innovate, and connect with peers and industry professionals alike.

The Artificial Intelligence and Data Science Department at Keystone School of Engineering is dedicated to providing a transformative education, state-of-the-art facilities, and myriad opportunities for personal and professional growth. Together, let us continue to uphold excellence and innovation as we shape the future of AI and data science.

Prof. Amrin R. Sheikh
Head of Department
Ph.D. Pursuing
M. Tech. (CSE)

HANDS ON TRAINING ON C PROGRAMMING : VALUE ADDED COURSE

Description

The Value-Added Course on C Programming was organized by Artificial Intelligence and Data Science Department with the aim of enhancing the practical skills of participants in C programming, a fundamental language in the field of computer science and software development. The program targeted students looking to deepen their understanding and application of C programming concepts.

Hands-on Practice and Projects

Participants were encouraged to engage in practical exercises after each session to reinforce their learning. They were provided with coding exercises that ranged from simple tasks to more complex problems. This practical approach allowed participants to apply theoretical knowledge and develop their programming skills effectively.

Sessions and Activities

The program comprised a series of interactive sessions and hands-on activities designed to cover both basic and advanced topics in C programming. The sessions were structured to progressively build upon foundational knowledge and introduce more complex concepts.

Highlights

Some of the key sessions included:
- Introduction to C Programming.
- Control Structures and Functions.
- Arrays, Pointers, and Strings.
- File Handling:
- Advanced Topics.

TOMORROW'S AI : EXPERT TALK

SHALAKA FOUNDATION
KEYSTONE SCHOOL OF ENGINEERING
Department of Data Science and Artificial Intelligence

EXPERT TALK ON:

TOMORROW'S AI: TRENDS, ETHICS, AND THE PATH FORWARD

📅 10 July 2024

Ms.Nidhi Vishnoi
Founder Director
Irizpro Learning Solutions

Overview

The expert talk on "Tomorrow's AI: Trends, Ethics, and the Path Forward" was a highly anticipated event organized by Department of Artificial Intelligence and Data Science. It aimed to delve into the future landscape of artificial intelligence (AI), focusing on emerging trends, ethical considerations, and the strategies to navigate this rapidly evolving field.

Points Covered

1Emerging Trends in AI:
The lecture began with an exploration of the latest technological advancements in AI, including machine learning, natural language processing, and computer vision.

2.Ethical Considerations:
The ethical implications of AI deployment were a central theme.

3.Regulatory Frameworks:
The need for robust regulatory frameworks to govern AI development and deployment was emphasized.

Future Outlook and Challenges

The lecture concluded with a forward-looking perspective on the future of AI. Challenges such as job displacement, societal impact, and the ethical dilemmas posed by advanced AI systems were debated, along with strategies for addressing these challenges proactively.

I-MEDITA LEARNING SOLUTIONS PRIVATE LIMITED : INDUSTRIAL VISIT

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About I-Medita

I-Medita, is an ISO 9001:2008 certified Training, development and placement Company registered by Ministry of Corporate affairs as an Educational Service Provider. I-Medita is also a Cisco Registered Partner. I-Medita is considered as India's Most Trusted Cisco Training Centre. I-Medita is a Global firm offering various educational training services across the globe. They provide Technical Hand on Training to Colleges, Universities.

Highlights

- Awareness about the role of Network Engineers in companies like Airtel, Vodafone, HCL, Accenture, etc.
- Increase practical knowledge of Networking and Big Data Hadoop Industrial sectors among students
- Acquaint students with interesting facts and breath-taking innovations in Networking, Network Security and other networking domains
- Information shared on the key certifications involved in Networking and their importance in industry
- Explanation of how all the networking devices and Data Centers Works and their role in Industry
- Few Hands on Practical were also shown to students

TECHNICAL QUIZ COMPETITION

To celebrate Youth Day by fostering knowledge, creativity, and teamwork among participants in the field of technology.

1. To engage the youth in a stimulating intellectual challenge.
2. To promote awareness of current technological trends and innovations.
3. To encourage teamwork and collaboration among participants.

Overview

The event saw enthusiastic participation of students, representing various departments of our institutions. A total of 330 participants took part, showcasing their knowledge across diverse technical subjects.

The quiz consisted of two rounds:

1. Preliminary Round: An objective question based on general knowledge.
2. Final Round: An objective question based on logical and technical knowledge.

The Technical Quiz Competition was a resounding success, effectively promoting knowledge and collaboration among the youth. It successfully celebrated Youth Day by inspiring the next generation of technologists. Plans for future events are already underway, aiming to build on this year's success.

Highlights

- Diverse Topics: Questions covered a range of subjects, including programming, networking, cybersecurity, AI, and emerging technologies.

- Expert Panel: The quiz was moderated by a panel and educators who provided insights and context to the questions.

AIDEAS
STUDENT'S ASSOCIATION

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Vision

To be a transformative platform that empowers students in Artificial Intelligence and Data Science to innovate, excel, and lead in shaping a smarter, data-driven future.

Mission

1. Foster Innovation: Provide resources and opportunities for students to explore cutting-edge technologies in AI and Data Science, promoting creative problem-solving and innovation.
2. Promote Collaboration: Build a vibrant community that encourages collaboration among students, academia, and industry professionals to address real-world challenges.
3. Enhance Skills: Offer workshops, seminars, and hands-on projects to equip students with technical expertise and industry-relevant skills.
4. Encourage Ethical Practices: Advocate for responsible and ethical use of AI and data science in solving societal problems.
5. Build Leadership: Cultivate leadership qualities by encouraging students to lead initiatives and participate in competitive and professional environments.

Suyash Bhuwad
Vice-President

Aditya Salunkhe
Secretary

Gururaj Ingavale
President

Snehal Shinde
Treasurer

TREE PLANTATION

Objective

1. Environmental Benefits.
2. Biodiversity.
3. Climate Mitigation.
4. Soil Conservation.
5. Community Engagement.

Overview

Tree plantation is a vital environmental initiative aimed at enhancing ecological balance, promoting biodiversity, and combating climate change. Trees play a crucial role in maintaining air quality, conserving water, and providing habitats for wildlife. Our department of Artificial Intelligence and Data science had organized a tree plantation activity under the HSS. More than 40 students had participated in this program with great motivation.

TEACHER'S DAY CELEBRATION

Objective

1. Recognition.
2. Appreciation.
3. Inspiration.
4. Community Building.

Overview

Teachers' Day is celebrated annually to honor the contributions of teachers in shaping the future of students and society. This day serves as a reminder of the pivotal role educators play in fostering knowledge, creativity, and critical thinking among their students.

FACULTY PROFILE

Name of Faculty- Prof.Amrin Shiekh
Qualification- Ph.D. Pursuing
M. Tech. (CSE)
Specialization- Network Security, Artificial Intelligence and Machine Learning, Oracle DBA

Name of Faculty- Prof. Sonali Bharat Shirke
Qualification- Ph.D. Pursuing
Specialization- DBMS, Information and Cyber Security, IOT

Name of Faculty- Mrs.Mukul Pramod Jagtap
Qualification- M.E Computer Engg.
Specialization-Data Science, Software Engineering

Name of Faculty- Prof. Simran Ricky Ahuja
Qualification- M.E Computer Engg.
Specialization- Programming languages, Data communication and computer Networks

ACHIEVEMENT'S

FACULTY ACHIEVEMENT

STUDENT'S ACHIEVEMENT

EDITOR'S MESSAGE

Dear Colleagues, Students, and AI & Data Science Enthusiasts,

Welcome to the latest edition of our Artificial Intelligence and Data Science Department Newsletter! As we continue to push the boundaries of knowledge and innovation in this dynamic and transformative field, we are excited to share new developments, insights, and breakthroughs that are shaping the future of AI and data science.

The world of artificial intelligence and data science is evolving at an unprecedented pace. From machine learning algorithms that are revolutionizing industries, to the ethical considerations of AI systems and data privacy, the challenges and opportunities are vast. This newsletter is a reflection of the outstanding work happening within our department, as well as a platform to keep you informed about the latest trends, research, and upcoming events in this ever-growing field.

In this edition, you'll find highlights from recent research initiatives, notable achievements from both students and faculty, and a closer look at the various projects that are making an impact.

Whether it's groundbreaking applications in healthcare, autonomous systems, or new data analytics tools, there is no shortage of exciting developments. Additionally, we dive into topics like AI ethics, bias mitigation, and the growing need for transparency in machine learning models —issues that are as critical as they are complex.

But beyond the research and technological advancements, this newsletter also aims to foster a sense of community within our department. We hope it encourages dialogue, collaboration, and idea-sharing. AI and data science are interdisciplinary fields that thrive on collective efforts, diverse perspectives, and the exchange of knowledge. As we move forward, let's continue to build a culture of inclusivity and collaboration that supports the development of solutions with real-world impact.

The future of AI and data science is bright, and as a department, we have a unique opportunity to shape that future. We encourage you to stay engaged, keep pushing boundaries, and continue to contribute your expertise and passion. Together, we can harness the potential of AI and data science to solve some of the world's most pressing problems and create technologies that benefit society as a whole.

Best Regards
Prof. Simran Ahuja.
Editor-in-Chief