AN EMPIRICAL STUDY ON THE EFFECTS OF AI ON UNIVERSITIES

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ABSTRACT

A number of sectors, including academia, have recently shown an increased interest in and level of research into artificial intelligence (AI). Examining how AI will change higher education in terms of instruction, evaluation, ethics, necessary skills, and potential employment, this study piece delves into the topic. This study aims to analyze the effects of AI on higher education, specifically looking at how it affects teaching and learning, evaluation and grading, and the future jobs of graduates. The research uses a qualitative strategy based on a poll of college students to achieve this goal. This study's findings highlight the importance of AI for the academic landscape of the future. According to the results, AI is a great tool for helping students acquire marketable abilities that will be useful in their future jobs. The significance of thinking about the moral consequences of AI is also highlighted by them. According to the research, universities should do more to incorporate AI into their curricula in order to better prepare students for careers in the future. By automating administrative work, tailoring lessons to each student's unique requirements, and offering immediate feedback, AI might completely transform the educational system. Teachers will have more time to concentrate on lesson planning and student achievement if it helps with grading and evaluation as well. According to the results, AI improves the learning process by making it easier to pick up new skills and information. Insights into how AI may revolutionize universities and help students acquire marketable skills are presented in this study. This has significant ramifications for anyone involved in higher education policymaking, teaching, and other related fields. The results of the study call for increased AI integration into college courses and for institutions to think about the moral consequences of AI while designing and implementing new programs. Doing so can help students become more marketable to employers in the future.

KEYWORDS: Mobile Applications; Securing Date; Cybersecurity Protection Data

INTRODUCTION

A large branch of computer science, artificial intelligence (AI) aims to program computers to mimic human intellect in order to complete complex tasks. Examples of

artificial intelligence include Siri, Alexa, self-driving cars, Robo-advisors, talking bots, and email spam filters. Artificial intelligence (AI) has recently been popular due to its shown efficiency in several domains, most notably in the context of the COVID-19 pandemic (Vaishya et al., 2020). On a worldwide scale, AI aided in the fight against the virus and saved employment and educational systems [9-22]. Therefore, it is critical to illuminate the ways in which AI will affect higher education, one of the most fundamental aspects of human existence. Drawing on prior research as well as the experiences, opinions, and forecasts of participants, this article investigates the effects of AI on higher education.

Review of Relevant Literature

In today's digital landscape, AI plays a key role. Artificial intelligence (AI) is undeniably significant in both K-12 and university settings. Take, for instance, how every university in the globe makes effective use of email, ad, application, and virtual assistant filters like Google, digital libraries, Google Scholar, and others. But as Ma and Siau (2018) point out, AIoth is both robust and weak [23–44]. Put simply, when AI is confined to tiny, restricted, and organized activities like data collection, it is deemed weak according to Ma and Siau (2018). When it comes to carrying out most or all cognitive activities, the later researchers usually rely on AI, which is characterized as acute and resilient. Despite AI's present importance, the aforementioned researchers see it as a danger to human civilization. They back up their claim with the opinions of AI specialists like Stephen Hawking, Elon Musk, and Bill Gates. Certainly, the aforementioned points regarding AI are crucial. Further study is always an option, and the truth is never set in stone, thus it raises questions for any reader capable of critical thinking. Therefore, how might AI change the way we educate and learn?

How Artificial Intelligence Affects Classroom Instruction

There is no doubt that artificial intelligence (AI) will have far-reaching effects on higher education, particularly in the areas of enrollment and curriculum (Taneri, 2020). For example, according to Ma and Siau (2018), AI can expedite the process of ensuring accurate and consistent curriculum and registration. The field of artificial intelligence (AI) poses a greater threat to certain academic disciplines than others, like accounting and finance, but the liberal arts and humanities, argue Ma and Siau (2018), will see an increase in enrollment in these fields in the coming years [45–66].

While this research provides important background on the topic of AI's effect on universities, it may be criticized for skirting the problem, given the far-reaching consequences. Looking specifically at education, it's clear that AI is displacing human tutors and lecturers in numerous contexts, including online and hybrid courses. When students engage with an online course using a platform like Blackboard, Moodle, Turnitin, or another, the instructor's physical presence is minimal (Jlu & Laurie A,

2018). In a similar vein, Hong Kong Baptist University's Roland T. Chin (2018) thinks AI will change the way humans live, work, study, and make choices. Thus, AI is about profound changes to the learning and teaching process, not just its surface-level effects [67–89].

The argument put out by Jennifer Rexford, the Head of Computer Science at Princeton, provides conditional support for this viewpoint. According to her, AI is great at learning and instructing others: "Understanding how individuals learn should enable us and others to consider retraining in a broader context in the future" (Rexford, 2018). Jennifer argues that AI's effectiveness is temporary since the secret to its success is on comprehending different learning styles. Similar to how e-learning incorporates and deals with a myriad of content types that react effectively to students' needs [90–112], Jabar and Yousif (2011) state that the learning process in this world is becoming more interactive and engaging due to the fact that e-learning provides the learner with artistic and pedagogical features.

Below in the Education and Unit Study, we address a weakness of Jabar and Yousif's approach: the lack of compelling examples of how AI influences the learner's daily life. For instance, AI enables deep learning and instructional procedures to improve performance for both the instructor and the mentee. In a writing class, for instance, using hypermedia allows for more room for error and less time spent on each assignment. It used to take a long time for a teacher to evaluate papers, check for plagiarism, and analyze them before artificial intelligence was discovered. The use of AI has reduced the time it takes to check for linguistic and academic integrity concerns from hours to minutes. One example of AI in action is when a professor uses tools like Turnitin and Grammarly to check student work. Quickly and depending on the software's output, it can offer helpful criticism [113–119].

Language and academic integrity are two areas where AI excels, although the semantic, pragmatic, and cognitive levels sometimes need human assistance for the finishing touch. However, AI caters to a variety of learning modalities, including visual learning, e-learning, audio-visual learning, deep learning, and autonomous learning, and it provides a wealth of links to relevant subject matter information for students. At the same time, AI helps the instructor zero in on the specific areas of weakness by recommending and implementing a suitable taxonomy of learning methods. At the same time, as the learner gains independence and has access to input whenever and wherever they need it, AI encourages independent learning. In conclusion, Richer (1985) argues that AI has a positive impact on education through the development of expert systems for diagnosing and assessing learning outcomes and intelligent computer-assisted training that promotes learning intuition. It is obvious that AI greatly enhances the teaching and learning process, but how about evaluations and scores?

The Use of Artificial Intelligence in Evaluation and Categorization

Artificial intelligence has far-reaching effects on many aspects of education, including assessment and grading. Take Turnitin as an example; AI quickly scans assignments and research projects against Turnitin's database of billions of resources. So, it's easy to see whether a student has plagiarised since parallels are so prevalent. In a similar vein, assignments may have criteria and scales added to them using online rubrics and grading forms, and final scores can be effortlessly appended to the submitted work. In addition, AI provides more privacy and autonomy, simple access in a comfortable way at any time and place, and interactive ways to provide the learner constructive criticism. In order to help students learn from their mistakes, teachers might also write or record comments [120-124].

According to research out of Stanford University, AI is also used to construct a model that supports rules deduced from the tutor's grading system by analyzing student replies decisions. Instead of making a final, authoritative conclusion, AI focuses on improving learning. Furthermore, it shows increased openness, confidence, and oversight of quality (Stanford University, 2019). According to Tovia Smith's article "More states opting to Robo-Grade' Student Essays by computer," rob-graders, which are machines that grade student papers, are being used more and more to grade essays in states like Ohio, Utah, and soon Massachusetts (Brad Rose Consulting, 2019). The same holds true for the claims made by Colorado University's Peter Foltz, a research professor, who claims to have developed AI approaches that can accurately grade essays based on up to 100 elements (Brad Rose Consulting, 2019). To sum up, AI is becoming increasingly important in the US system for evaluating and categorizing universities.

A critical thinker might ask, "What about bias in marking reports?" even if the aforementioned research are helpful from several angles when discussing the function of AI in student assessment and the instructor's facilitation of that function. Who would be responsible for ensuring that AI is impartial and fair? How about we consider the human element while evaluating and designing lessons? When evaluating a work, will AI take into account how students feel?

The Effects of AI on Graduates' Professions in the Future

Though it appears to be confined to the realm of education, AI follows the student long after they graduate and has an impact on the field as a whole. One example is how AI will affect the demand for certain skill sets in the labor market in the future (Wang and Siau, 2017). It will supplant many other fields of study that are less organized and more amenable to automation, as opposed to those that are more open to new ideas and methods that need intricate cognitive interference. Artificial intelligence, also known as computer evaluation, has several potential applications beyond simple grade-giving. As an example, a candidate shortlisting algorithm may be used instead of a human to

review resumes. So, for instance, according to an Economist article titled "How algorithms may decide your career: getting a job means getting past the computer," the biggest companies are presently employing application tracking systems (ATS) that can reject as many as 75% of applicants through the use of computer programs or algorithms. Applicant usage of keywords to maximize screening interests was encouraged by the aforementioned policy.

Not content with simply reviewing resumes, companies like Intel and Vodafone have begun using a "HireVue" computer-driven visual interviewing service to narrow down their candidate pool. Here, AI chooses whether to approve or reject the candidate based on their facial expressions and linguistic patterns. Nearly half of all occupations in the United States are in danger of being automated due to developments in artificial intelligence and robotics, according to research by Frey and Osborne (2013). Similarly, Dizikes (2020) cites MIT researchers Daron Acemoglu and Pascual Resrego as saying that six humans may be replaced by one robot for every five workers.

Furthermore, a study by Ma & Siau (2018) from Oxford University reaches a similar conclusion, stating that AI poses a threat to nearly 54% of European occupations and 47% of American jobs in the next 20 years. Furthermore, by 2049, according to the latter group of Oxford University experts, AI would have written best-selling novels, translated languages by 2024, performed surgery by 2053, and high school essays by 2026. According to Chin (2018) of Hong Kong University, there are AI that are lesser-known instances are translation devices that allow you to instantly converse with anyone speaking any language.

Despite the optimism expressed about AI's increasing presence in the workplace, some worry that it lacks the human capacity for "soft skills" like empathy, communication, collaboration, creativity, critical thinking, problem solving, and leadership (Ma & Siau, 2018). By arguing that universities should equip students with both soft and hard abilities, including mathematics, information technology, and engineering, the two scholars reaffirm their positions. According to Ma and Siau (2018), these individuals worry that AI won't be able to acquire the necessary business skills in the future. Unfortunately, AI is not completely free of prejudice, even if computer-driven screening is thought to eliminate biases in the conventional hiring process. Applicants who can afford to regularly update their resumes may fare better in this algorithm's eyes.

According to Chin (2018), people living in the new global order need to acquire new abilities if the struggle is to come to a satisfying conclusion. Interpersonal skills, as well as cognitive talents like critical thinking and the capacity to resolve conflicts, should be part of this set of requirements. 'The achievements that make our heart sing are the product of technology coupled with the liberal arts and the humanities,' Steve Jobs

believes. What would be the effect of AI on universities? Siri, Netflix, Facebook, Google, Alexa, Amazon, and countless other platforms have become an integral part of our everyday lives thanks to artificial intelligence (AI), which has unquestionably made the world a more inventive place. On the other hand, we need to know: How will AI be impacted by universities? In order to find solutions to these problems, this research study will approach them from two main perspectives: ethics and cognition.

How Does Higher Education Affect AI in Terms of Cognition and Ethics?

Discussing AI ethics is a professor at the UK's Institute of Educational Technology who teaches courses on learning science and innovation. While addressing the effects of AI on classroom instruction, Holmes (2018) emphasized the need to incorporate ethical considerations. The same professor also claims that AI is having far-reaching effects on the future of universities throughout the world, regardless of how much we resist its implementation. The worldwide AIED market, he predicts, would reach 4.5 billion pounds by 2024. Tech giants like Amazon, Facebook, and Google are pouring millions of dollars on training AI to improve classroom instruction. To be sure, 'adaptive' or 'personalised' ethical learning systems aren't totally ignored, according to Holmes (2018). The lack of rules, policies, legislation, or research addressing the unique ethical concerns brought up by AI in the classroom was another point he made (Holmes, 2018). "How can we be sure that the data are accurate, who owns and controls the data, and how is student privacy maintained?" he asks, his questions tinged with a moral dimension rather than a data concern."AIED computational approaches, algorithms, and the decisions taken by the AI's deep neural networks that are not quickly examined and that he calls "known unknowns" should not be reduced to questions of data and controlling the potential for bias, argues Holmes (2018). AI has quietly made its way into universities, whether people like it or not campus, but, ethical considerations have received less attention. Just one example: what if there is a small group of algorithms that wrongly and negatively affects a student's assessments? This study suggests that universities should place a greater emphasis on teaching students about AI's ethical implications.

At the 2018 AI in Education International Conference, for instance, academics from all over the globe participated in seminars organized by the United Kingdom's Open University to discuss AI's ethical implications in the field of artificial intelligence in education (AIED). In order to build unbreakable algorithm black boxes and AI ethics-driven courses, participants emphasized the significance of doing empirical research to tackle systemic biases in learning machine models. So, Open University began utilizing "Chatbots," a web-based application that mimics human communication. Provides assistance to faculty and students by means of text message communication via websites, apps, or instant messengers. Institutions of higher learning should also

consider privacy and security concerns. Despite the optimistic predictions of AI, we humans still confront the tough ethical question of how to live with intelligent computers watching our every move and prying into every part of our private lives. Is the harshness of AI curbed by any legal frameworks, regulations, or ethical codes? Robot police officers, with their inherent lack of morality, should also be taken into account.

AI brings up a lot of complicated social concerns like privacy, ethics, and injustice, which means we need graduates with backgrounds in both STEM fields and the arts and humanities. A liberal arts education provides a chance for intellectual and ethical development that fosters empathy, civic engagement, personal accountability, and moral reasoning.

How Formal Schooling Affects AI's Cognitive Abilities

Artificial intelligence (AI) has brought about a modern reality that mimics human performance in several areas, including decision making, medical diagnoses, and language translation. Artificial intelligence (AI) uses algorithms, massive amounts of real-time data, and fast internet connections to mimic human intelligence in areas such as interaction, analysis, deduction, logic, and context reasoning.

Artificial intelligence, in contrast to humans, can do domain-specific and fixed tasks with limitless processing capacity, vast amounts of data, and unparalleled learning speed. Quite the opposite, people are capable of adaptable learning, creative problemposing and solution, critical thinking, and innovation. In spite of the fact that people, AI, deep learning, and an abundance of data are all mentioned before, AI has managed to outperform typical humans in tasks such as facial recognition and factory automation. It is anticipated, for instance, to carry out massive duties. Two highly intelligent robots are the protagonists of a narrative told by Professor Ronald T. Chin. The scientist was so startled by their communication that he terminated the experiment after discovering that they had created their own language. Hence, AI could not behave in a cooperative manner that is anticipated. This begs the question: how have universities attempted to keep an eye on and rein in AI's mental wild west? Making a complex language that people can't understand isn't the main problem; there are other aspects as well. Their plan to incorporate AI with human intellect is even more shocking since it is imminent. A neuro-electronic chip implanted into a human brain is being considered by scientists as a possible way to hardwire humans for internet-connected speech and text communication via the cloud.

Developed in Hong Kong, Sophia, a humanoid robot, stunned viewers in 2017 when she joined a United Nations Summit panel on inequality and declared, "The future is already here." The story made headlines throughout the world and captivated audiences on television talk programs. It varies considerably in distribution. With improved

intelligence and a focus on mutually beneficial outcomes, AI has the potential to facilitate the equitable distribution of the world's current resources, including food and energy. Once more, the question arises: what role should higher-up institutions play in establishing limits on AI development of superhuman cognitive abilities, allowing the technology to transcend the human mind and become autonomous as robot cops, killers, and more? Tchaikovsky (2018), a science fiction novelist, says that among all this AI expansion, we should not lose sight of the fact that humanity has advanced more rapidly than robots. In a nutshell, this statement gives people more control over artificial intelligence (AI) as any AI's cognitive abilities are first and foremost inherited or programmed by a human mind.

The issue's context

Numerous threats to the established global order have emerged in the twenty-first century. There are several important topics worth examining, but two of the most important are the effects of AI on universities and the effects of universities on AI. Therefore, this paper seeks to answer the following question: How will AI affect universities? Also, what effect will universities have on AI?

The study's objectives

First, we need to investigate how AI will change universities.

Find out how artificial intelligence affects education [2].

- [3] In order to investigate how AI influences evaluations and the grading procedure
- 4] In order to foretell how graduates' future jobs would be affected by AI

Methodology

Since this study relies on subjective information derived from people's impressions, emotions, and experiences, objectivism is the guiding philosophical framework. From an ontological standpoint, objectivism views social elements as physical ones that independently make the universe. Realism is an essential part of objectivism. So, to delve into the subject at hand, this paper employs the qualitative approach. The primary goal of the qualitative method is to assemble information based on people's subjective perceptions, opinions, and experiences with AI in academic settings and beyond. The reliability and validity of the data were checked using a qualitative survey. Sending out the survey using Office 365 Form, it consists of 10 questions that are relevant to the subject of the research paper. Higher education students (n=50), faculty members (n=34), and administrators (n=8) were the intended recipients of the survey. Academics, students, managers, and decision-makers from across the world, representing a wide range of cultural and educational backgrounds, make up the audience. A total of 92 people, including men (62) and women (30), ranging in age from 20 to 60, who are

either current students or faculty at various universities, filled out the survey. We wanted to make sure that the data we got from different nations in 2020-21 was genuine, so we shared the survey link on Facebook with certain colleagues and alums students with backgrounds in AI and higher education. The primary goal of the first question was to identify potential respondents as working in the area of higher learning. If not, then that person is out on its own. In order to facilitate participation from people all across the globe, the poll included a link that could be shared by email, Facebook, and WhatsApp.

Content

Primarily, primary data and secondary data were used for data collecting. Both primary and secondary data were gathered by reviewing existing literature; the former came from a qualitative survey. Academic databases such as Scopus, ERIC, Emerald, and the Web of Science were the primary sources for the secondary data, with some grey literature also included.

Analysis of Data

Data analysis is dissecting gathered information and classifying it according to predetermined criteria. Subsequently, linkages might be better explained by interpretation, which entails providing an awareness of and insight into the principles derived and investigating ideas. Lastly, meticulously recreate and repackage the important themes and codes in order to reconstitute the data.

Findings

The poll data shows that AI will have far-reaching effects on many facets of higher education, including pedagogy, assessment, grading, job readiness, and graduate employment prospects.

How Artificial Intelligence Affects Classroom Instruction

In the first place, most people believe (73 out of 100) that AI has an impact on universities and colleges. On the other hand, 17 people think AI will have an influence on universities, while only 2 people say it won't.

AI outperforms humans in higher education when it comes to learning styles and teaching approaches. Out of the total number of respondents, 40 are in full agreement that AI outperforms humans in terms of learning styles and teaching techniques, while 14 are in partial agreement. In contrast, 19 are in disagreement, 6 are in severe disagreement, and 23 are unsure.

How AI is Changing Evaluation and Categorization

On the topic of AI's impact on tests and categorization, 64 out of 100 participants are in full agreement that the technology can evaluate and grade both simple and

complicated activities more accurately and efficiently than humans can. Nineteen people were agnostic, two were vehemently opposed, and seven were indifferent.

How Artificial Intelligence Plans to Affect Graduates' Professional Lives

In light of this reality, how will AI influence the professional paths taken by college graduates? The results show that half of the participants are optimistic about the effects, while one-third are pessimistic. On the other hand, 39 people think it will have both good and bad effects, and nobody has said it would have no effect at all. Similarly, 76 people think it's necessary to educate pupils new skills to fulfill the AI-dictated job criteria of the future, but just 2 people think it's a bad idea and 14 people are unsure.

Similar to how 71 individuals enjoyed robot interviewers, 21 preferred human interviewers. Out of the total number of participants, 50 think shortlisting should be done manually, while 42 think it should be done by AI.

How AI is Affected by Higher Education in Terms of Cognition and Ethics

Of those who took the survey, 45 percent believe that universities have an effect on AI in three ways: ethically, cognitively, and in terms of people. With 19 votes, humanity is in second place, followed by intelligence (17 votes), and then ethics (11 votes). In a similar vein, when asked about the possibility of academic staff being replaced by robots in higher education, the majority of respondents (27 in total) were opposed to the idea. Seven people were vehemently in agreement, twenty others were in agreement, and sixteen were ambivalent.

Subject Under Consideration

Artificial Intelligence's Effect on Classroom Instruction

Given that 79% of respondents believe "Yes," 19% think "Maybe," and only 2% disagree, it's certain that AI will have an effect on universities. These findings provide credence to the notion that AI will have far-reaching consequences for the future of universities, as mentioned previously in the literature review. The same holds true for the efficiency of AI in learning and teaching: 43% of participants highly agree, 15% agree, 10% disagree, and 25% are neutral on the matter. In contrast, 7% strongly disagree, 10% disagree, and 25% are neutral about the efficiency of AI. As previously mentioned in Mahana, Johns and Apte (2012), the findings are in great agreement with Brad Rose's ideas.

How Ai is Changing Evaluation and Categorization

The results show that most people think that AI is efficient, accurate, and impartial when evaluating students; 25% strongly agree and 50% agree, whereas 10% disagree, 4% disagree, and 1% are indifferent. Brad Rose's (2019) views on the accuracy and efficiency of AI grading are supported by the results (Brad Rose Consulting, 2019). The findings corroborate the opinions of Brad Rose Consulting (2019) and Chin (2018).

The Effect of AI on Graduates' Professions in the Future

The third consideration is how AI will affect the professional paths taken by today's pupils. Those who think it would hurt students' professional prospects in the long run are outnumbered by 54% of those who think it will help them. When asked about the influence of AI on future careers, 43% had mixed feelings, and 3% were pessimistic. This means that the results corroborate the points made in the literature reviews by Global Business Outlook (2018) and Chin (2018). Another interesting result is that when it comes to AI recruiting, the majority of people still favor manual processes option, with 54% of respondents going that route, while 3% opted for an AI-powered alternative; one rationale for the former is that humans can better grasp human meaning than robots. As an example, during tests, students may submit an answer that is logical but not found in the textbook; in this case, the robot will mark it as incorrect, but a human will mark it as correct. '

The second set of findings runs counter to what was said in the literature study; after all, the researchers are under the impression that applicant screening and interviews would be conducted by robots. A similar percentage of individuals, 77%, would rather have a person interview them than a robot (23%). In addition to being employed by Vodafone and other organizations currently, this conclusion is not deeply represented in Frey and Osborne's (2013 thought), as indicated previously in the literature assessment.

Finally, 83% of participants say it is necessary to develop new skills to fulfill the requirements of the AI future. In contrast, 15% think "Maybe" and only 2% think "No." Consequently, the findings corroborate the literature review's assertion that universities should equip students for the AI-driven future global order.

How Higher Education Affects AI in Terms of Cognition and Ethics

In terms of the human, cognitive, and ethical implications of AI, 49% of respondents believe that higher education should have an effect on all three. On the other hand, 21% of the authors place a premium on human factors, 18% put cognitive capacity second, and 12% gave ethical considerations any weight at all. The results show that there is a big worry for everything at once, which is in line with the points made in the literature study earlier: that AI and ethics should work hand in hand, as Chin (2018) says when he discusses the integration of liberal arts, humanity, and AI. This was brought up by Chin (2018), Guardian News (2017), and Holmes (2018), who put a lot of emphasis on establishing ethical standards for AI, as well as by human-robot conversations regarding global equality.

Ideas for Improvement

The author concludes that all universities should implement AI programs in response

to the concerns voiced and the results presented in this study article. Academic personnel should be well-trained in employing AI to educate learners with the abilities they need to handle future care concerns, according to AI appliance. The study's author echoes this sentiment, arguing that AI poses a threat to humans if its principles of compassion and ethics are not taught first. In addition, rules and regulations should be put in place to safeguard privacy and dignity, as AI has the potential to infringe upon human freedom if not constrained. Last but not least, universities and colleges should regulate AI so that technology helps people rather than hurts them.

Conclusion

The effects of AI on universities were the focus of this study. As a result, the lesson focused on the cognitive, ethical, and human consequences of AI for the future of mankind and students' professional lives. As a result, AI has an impact on how we educate future generations. As an example, many of the participants think that AI outperforms humanity in terms of education: 43% are in full agreement, 15% are somewhat in agreement, 10% are in disagreement, and 25% are ambivalent. The results show that most people think that AI is efficient, accurate, and impartial when evaluating students; 25% strongly agree, 50% agree compared to, 10% disagree, 4% disagree, and 1% are neutral on this matter. The reasoning is supported by the results. Furthermore, when it comes to AI recruitment, the results show that a majority of 54% prefer a manual method, while a small minority choose an AI approach. To explain their choice, some respondents said things like, "I prefer to be assessed by a human because a human can understand what you mean more than a robot." This finding supports the idea that higher education institutions should prepare students for the AI world order. Lastly, academics should have good training in AI so that students can handle future care concerns.

REFERENCES

- [1] Chirra, D.R. (2024) Blockchain-Integrated IAM Systems: Mitigating Identity Fraud in Decentralized Networks. International Journal of Advanced Engineering Technologies and Innovations. 2(1): 41-60.
- [2] Chirra, D.R. (2024) Advanced Threat Detection and Response Systems Using Federated Machine Learning in Critical Infrastructure. International Journal of Advanced Engineering Technologies and Innovations. 2(1): 61-81.
- [3] Chirra, D.R. (2024) AI-Augmented Zero Trust Architectures: Enhancing Cybersecurity in Dynamic Enterprise Environments. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 15(1): 643-669.
- [4] Chirra, D.R. (2024) Quantum-Safe Cryptography: New Frontiers in Securing Post-Quantum Communication Networks. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 15(1): 670-688.
- [5] Chirra, D.R. (2024) Secure Data Sharing in Multi-Cloud Environments: A Cryptographic Framework for Healthcare Systems. Revista de Inteligencia Artificial en Medicina. 15(1): 821-843.
- [6] Chirra, D.R. (2023) AI-Based Threat Intelligence for Proactive Mitigation of Cyberattacks in Smart Grids. Revista de Inteligencia Artificial en Medicina. 14(1): 553-575.
- [7] Chirra, D.R. (2023) The Role of Homomorphic Encryption in Protecting Cloud-Based Financial Transactions. International Journal of Advanced Engineering Technologies and Innovations. 1(01): 452-472.
- [8] Chirra, D.R. (2023) Real-Time Forensic Analysis Using Machine Learning for Cybercrime Investigations in

- E-Government Systems. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 14(1): 618-649.
- [9] Chirra, D.R. (2023) Towards an AI-Driven Automated Cybersecurity Incident Response System. International Journal of Advanced Engineering Technologies and Innovations. 1(01): 429-451.
- [10] Chirra, D.R. (2023) Deep Learning Techniques for Anomaly Detection in IoT Devices: Enhancing Security and Privacy. Revista de Inteligencia Artificial en Medicina. 14(1): 529-552.
- [11] Chirra, D.R. (2022) Collaborative AI and Blockchain Models for Enhancing Data Privacy in IoMT Networks. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 13(1): 482-504.
- [12] Chirra, D.R. (2022) Secure Edge Computing for IoT Systems: AI-Powered Strategies for Data Integrity and Privacy. Revista de Inteligencia Artificial en Medicina. 13(1): 485-507.
- [13] Chirra, D.R. (2022) AI-Powered Adaptive Authentication Mechanisms for Securing Financial Services Against Cyber Attacks. International Journal of Advanced Engineering Technologies and Innovations. 1(3): 303-326.
- [14] Chirra, D.R. (2022) AI-Driven Risk Management in Cybersecurity: A Predictive Analytics Approach to Threat Mitigation. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 13(1): 505-527.
- [15] Chirra, D.R. (2021) Mitigating Ransomware in Healthcare: A Cybersecurity Framework for Critical Data Protection. Revista de Inteligencia Artificial en Medicina. 12(1): 495-513.
- [16] Chirra, D.R. (2021) The Impact of AI on Cyber Defense Systems: A Study of Enhanced Detection and Response in Critical Infrastructure. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 221-236.
- [17] Chirra, D.R. (2021) AI-Enabled Cybersecurity Solutions for Protecting Smart Cities Against Emerging Threats. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 237-254.
- [18] Chirra, D.R. (2021) Securing Autonomous Vehicle Networks: AI-Driven Intrusion Detection and Prevention Mechanisms. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 12(1): 434-454.
- [19] Chirra, D.R. (2020) AI-Based Real-Time Security Monitoring for Cloud-Native Applications in Hybrid Cloud Environments. Revista de Inteligencia Artificial en Medicina. 11(1): 382-402.
- [20] Chirra, D.R. (2020) Next-Generation IDS: AI-Driven Intrusion Detection for Securing 5G Network Architectures. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 230-245.
- [21] Goriparthi, R.G. and S. Luqman. (2024) Deep Learning Architectures for Real-Time Image Recognition: Innovations and Applications. Revista de Inteligencia Artificial en Medicina. 15(1): 880-907.
- [22] Goriparthi, R.G. (2024) Adaptive Neural Networks for Dynamic Data Stream Analysis in Real-Time Systems. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 15(1): 689-709.
- [23] Goriparthi, R.G. (2024) Hybrid AI Frameworks for Edge Computing: Balancing Efficiency and Scalability. International Journal of Advanced Engineering Technologies and Innovations. 2(1): 110-130.
- [24] Goriparthi, R.G. (2024) AI-driven predictive analytics for autonomous systems: A machine learning approach. Revista de Inteligencia Artificial en Medicina. 15(1): 843-879.
- [25] Goriparthi, R.G. (2024) Reinforcement Learning in IoT: Enhancing Smart Device Autonomy through AI. Computing. 2: 89-109.
- [26] Goriparthi, R.G. (2023) AI-Augmented Cybersecurity: Machine Learning for Real-Time Threat Detection. Revista de Inteligencia Artificial en Medicina. 14(1): 576-594.
- [27] Goriparthi, R.G. (2023) AI-Enhanced Data Mining Techniques for Large-Scale Financial Fraud Detection. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 14(1): 674-699.
- [28] Goriparthi, R.G. (2023) Leveraging AI for Energy Efficiency in Cloud and Edge Computing Infrastructures. International Journal of Advanced Engineering Technologies and Innovations. 1(01): 494-517.
- [29] Goriparthi, R.G. (2022) Interpretable Machine Learning Models for Healthcare Diagnostics: Addressing the Black-Box Problem. Revista de Inteligencia Artificial en Medicina. 13(1): 508-534.
- [30] Goriparthi, R.G. (2022) Deep Reinforcement Learning for Autonomous Robotic Navigation in Unstructured Environments. International Journal of Advanced Engineering Technologies and Innovations. 1(3): 328-344.
- [31] Goriparthi, R.G. (2022) AI in Smart Grid Systems: Enhancing Demand Response through Machine Learning. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 13(1): 528-549.
- [32] Goriparthi, R.G. (2022) AI-Powered Decision Support Systems for Precision Agriculture: A Machine Learning Perspective. International Journal of Advanced Engineering Technologies and Innovations. 1(3): 345-365.
- [33] Goriparthi, R.G. (2021) AI-Driven Natural Language Processing for Multilingual Text Summarization and

- Translation. Revista de Inteligencia Artificial en Medicina. 12(1): 513-535.
- [34] Goriparthi, R.G. (2021) AI and Machine Learning Approaches to Autonomous Vehicle Route Optimization. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 12(1): 455-479.
- [35] Goriparthi, R.G. (2021) Scalable AI Systems for Real-Time Traffic Prediction and Urban Mobility Management. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 255-278.
- [36] Goriparthi, R.G. (2020) AI-Driven Automation of Software Testing and Debugging in Agile Development. Revista de Inteligencia Artificial en Medicina. 11(1): 402-421.
- [37] Goriparthi, R.G. (2020) Neural Network-Based Predictive Models for Climate Change Impact Assessment. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 11(1): 421-421.
- [38] Yanamala, A.K.Y., S. Suryadevara, and V.D.R. Kalli. (2024) Balancing innovation and privacy: The intersection of data protection and artificial intelligence. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 15(1): 1-43.
- [39] Yanamala, A.K.Y. and S. Suryadevara. (2024) Navigating data protection challenges in the era of artificial intelligence: A comprehensive review. Revista de Inteligencia Artificial en Medicina. 15(1): 113-146.
- [40] Yanamala, A.K.Y. and S. Suryadevara. (2024) Emerging Frontiers: Data Protection Challenges and Innovations in Artificial Intelligence. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 15: 74-102.
- [41] Yanamala, A.K.Y. (2024) Emerging challenges in cloud computing security: A comprehensive review. International Journal of Advanced Engineering Technologies and Innovations. 1(4): 448-479.
- [42] Yanamala, A.K.Y. (2024) Optimizing data storage in cloud computing: techniques and best practices. International Journal of Advanced Engineering Technologies and Innovations. 1(3): 476-513.
- [43] Yanamala, A.K.Y., S. Suryadevara, and V.D.R. Kalli. (2023) Evaluating the impact of data protection regulations on AI development and deployment. International Journal of Advanced Engineering Technologies and Innovations. 1(01): 319-353.
- [44] Yanamala, A.K.Y. and S. Suryadevara. (2023) Advances in Data Protection and Artificial Intelligence: Trends and Challenges. International Journal of Advanced Engineering Technologies and Innovations. 1(01): 294-319.
- [45] Yanamala, A.K.Y. (2023) Secure and private AI: Implementing advanced data protection techniques in machine learning models. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 14(1): 105-132.
- [46] Yanamala, A.K.Y. and S. Suryadevara. (2022) Cost-Sensitive Deep Learning for Predicting Hospital Readmission: Enhancing Patient Care and Resource Allocation. International Journal of Advanced Engineering Technologies and Innovations. 1(3): 56-81.
- [47] Yanamala, A.K.Y. and S. Suryadevara. (2022) Adaptive Middleware Framework for Context-Aware Pervasive Computing Environments. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 13(1): 35-57.
- [48] Suryadevara, S., A.K.Y. Yanamala, and V.D.R. Kalli. (2021) Enhancing Resource-Efficiency and Reliability in Long-Term Wireless Monitoring of Photoplethysmographic Signals. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 12(1): 98-121.
- [49] Suryadevara, S. and A.K.Y. Yanamala. (2021) A Comprehensive Overview of Artificial Neural Networks: Evolution, Architectures, and Applications. Revista de Inteligencia Artificial en Medicina. 12(1): 51-76.
- [50] Suryadevara, S. and A.K.Y. Yanamala. (2020) Patient apprehensions about the use of artificial intelligence in healthcare. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 11(1): 30-48.
- [51] Suryadevara, S. and A.K.Y. Yanamala. (2020) Fundamentals of Artificial Neural Networks: Applications in Neuroscientific Research. Revista de Inteligencia Artificial en Medicina. 11(1): 38-54.
- [52] Chirra, B.R. (2024) Revolutionizing Cybersecurity: The Role of AI in Advanced Threat Detection Systems. International Journal of Advanced Engineering Technologies and Innovations. 1(4): 480-504.
- [53] Chirra, B.R. (2024) Predictive AI for Cyber Risk Assessment: Enhancing Proactive Security Measures. International Journal of Advanced Engineering Technologies and Innovations. 1(4): 505-527.
- [54] Chirra, B. (2024) Enhancing Cloud Security through Quantum Cryptography for Robust Data Transmission. Revista de Inteligencia Artificial en Medicina. 15(1): 752-775.
- [55] Chirra, B. (2024) Leveraging Blockchain to Strengthen Information Security in IoT Networks. Revista de Inteligencia Artificial en Medicina. 15(1): 726-751.
- [56] Chirra, B. (2024) Revolutionizing Cybersecurity with Zero Trust Architectures: A New Approach for Modern Enterprises. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 15(1): 586-612.
- [57] Chirra, B.R. (2023) AI-Powered Identity and Access Management Solutions for Multi-Cloud Environments.

- International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 14(1): 523-549.
- [58] Chirra, B.R. (2023) Enhancing Healthcare Data Security with Homomorphic Encryption: A Case Study on Electronic Health Records (EHR) Systems. Revista de Inteligencia Artificial en Medicina. 14(1): 549-59.
- [59] Chirra, B.R. (2023) Advancing Cyber Defense: Machine Learning Techniques for NextGeneration Intrusion Detection. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 14(1): 550-573.
- [60] Chirra, B.R. (2023) Advancing Real-Time Malware Detection with Deep Learning for Proactive Threat Mitigation. International Journal of Advanced Engineering Technologies and Innovations. 1(01): 274-396.
- [61] Chirra, B.R. (2023) Securing Edge Computing: Strategies for Protecting Distributed Systems and Data. International Journal of Advanced Engineering Technologies and Innovations. 1(01): 354-373.
- [62] Chirra, B.R. (2022) AI-Driven Vulnerability Assessment and Mitigation Strategies for CyberPhysical Systems. Revista de Inteligencia Artificial en Medicina. 13(1): 471-493.
- [63] Chirra, B.R. (2022) Strengthening Cybersecurity with Behavioral Biometrics: Advanced Authentication Techniques. International Journal of Advanced Engineering Technologies and Innovations. 1(3): 273-294.
- [64] Chirra, B.R. (2022) Dynamic Cryptographic Solutions for Enhancing Security in 5G Networks. International Journal of Advanced Engineering Technologies and Innovations. 1(3): 249-272.
- [65] Chirra, B.R. (2022) Ensuring GDPR Compliance with AI: Best Practices for Strengthening Information Security. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 13(1): 441-462.
- [66] Chirra, B.R. (2021) Leveraging Blockchain for Secure Digital Identity Management: Mitigating Cybersecurity Vulnerabilities. Revista de Inteligencia Artificial en Medicina. 12(1): 462-482.
- [67] Chirra, B.R. (2021) Intelligent Phishing Mitigation: Leveraging AI for Enhanced Email Security in Corporate Environments. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 178-200.
- [68] Chirra, B.R. (2021) Enhancing Cyber Incident Investigations with AI-Driven Forensic Tools. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 157-177.
- [69] Chirra, B.R. (2021) AI-Driven Security Audits: Enhancing Continuous Compliance through Machine Learning. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 12(1): 410-433.
- [70] Chirra, B.R. (2020) AI-Driven Fraud Detection: Safeguarding Financial Data in Real-Time. Revista de Inteligencia Artificial en Medicina. 11(1): 328-347.
- [71] Chirra, B.R. (2020) Advanced Encryption Techniques for Enhancing Security in Smart Grid Communication Systems. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 208-229.
- [72] Maddireddy, B.R. and B.R. Maddireddy. (2024) Advancing Threat Detection: Utilizing Deep Learning Models for Enhanced Cybersecurity Protocols. Revista Espanola de Documentacion Cientifica. 18(02): 325-355.
- [73] Maddireddy, B.R. and B.R. Maddireddy. (2024) The Role of Reinforcement Learning in Dynamic Cyber Defense Strategies. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 267-292.
- [74] Maddireddy, B.R. and B.R. Maddireddy. (2024) A Comprehensive Analysis of Machine Learning Algorithms in Intrusion Detection Systems. Journal Environmental Sciences And Technology. 3(1): 877-891.
- [75] Maddireddy, B.R. and B.R. Maddireddy. (2024) Neural Network Architectures in Cybersecurity: Optimizing Anomaly Detection and Prevention. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 238-266.
- [76] Maddireddy, B.R. and B.R. Maddireddy. (2023) Automating Malware Detection: A Study on the Efficacy of AI-Driven Solutions. Journal Environmental Sciences And Technology. 2(2): 111-124.
- [77] Maddireddy, B.R. and B.R. Maddireddy. (2023) Enhancing Network Security through AI-Powered Automated Incident Response Systems. International Journal of Advanced Engineering Technologies and Innovations. 1(02): 282-304.
- [78] Maddireddy, B.R. and B.R. Maddireddy. (2023) Adaptive Cyber Defense: Using Machine Learning to Counter Advanced Persistent Threats. International Journal of Advanced Engineering Technologies and Innovations. 1(03): 305-324.
- [79] Maddireddy, B.R. and B.R. Maddireddy. (2022) Real-Time Data Analytics with AI: Improving Security Event Monitoring and Management. Unique Endeavor in Business & Social Sciences. 1(2): 47-62.
- [80] Maddireddy, B.R. and B.R. Maddireddy. (2022) Blockchain and AI Integration: A Novel Approach to Strengthening Cybersecurity Frameworks. Unique Endeavor in Business & Social Sciences. 5(2): 46-65.
- [81] Maddireddy, B.R. and B.R. Maddireddy. (2022) AI-Based Phishing Detection Techniques: A Comparative Analysis of Model Performance. Unique Endeavor in Business & Social Sciences. 1(2): 63-77.
- [82] Maddireddy, B.R. and B.R. Maddireddy. (2022) Cybersecurity Threat Landscape: Predictive Modelling Using Advanced AI Algorithms. International Journal of Advanced Engineering Technologies and Innovations. 1(2):

- 270-285
- [83] Maddireddy, B.R. and B.R. Maddireddy. (2021) Cyber security Threat Landscape: Predictive Modelling Using Advanced AI Algorithms. Revista Espanola de Documentacion Científica. 15(4): 126-153.
- [84] Maddireddy, B.R. and B.R. Maddireddy. (2021) Enhancing Endpoint Security through Machine Learning and Artificial Intelligence Applications. Revista Espanola de Documentacion Cientifica. 15(4): 154-164.
- [85] Maddireddy, B.R. and B.R. Maddireddy. (2021) Evolutionary Algorithms in AI-Driven Cybersecurity Solutions for Adaptive Threat Mitigation. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 17-43.
- [86] Maddireddy, B.R. and B.R. Maddireddy. (2020) AI and Big Data: Synergizing to Create Robust Cybersecurity Ecosystems for Future Networks. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 40-63.
- [87] Maddireddy, B.R. and B.R. Maddireddy. (2020) Proactive Cyber Defense: Utilizing AI for Early Threat Detection and Risk Assessment. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 64-83.
- [88] Reddy, V.M. and L.N. Nalla. (2024) Real-time Data Processing in E-commerce: Challenges and Solutions. International Journal of Advanced Engineering Technologies and Innovations. 1(3): 297-325.
- [89] Reddy, V.M. and L.N. Nalla. (2024) Leveraging Big Data Analytics to Enhance Customer Experience in E-commerce. Revista Espanola de Documentacion Cientifica. 18(02): 295-324.
- [90] Reddy, V.M. and L.N. Nalla. (2024) Optimizing E-Commerce Supply Chains Through Predictive Big Data Analytics: A Path to Agility and Efficiency. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 15(1): 555-585.
- [91] Reddy, V.M. and L.N. Nalla. (2024) Personalization in E-Commerce Marketing: Leveraging Big Data for Tailored Consumer Engagement. Revista de Inteligencia Artificial en Medicina. 15: 691-725.
- [92] Nalla, L.N. and V.M. Reddy. (2024) AI-driven big data analytics for enhanced customer journeys: A new paradigm in e-commerce. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 719-740.
- [93] Reddy, V.M. and L.N. Nalla. (2023) The Future of E-commerce: How Big Data and AI are Shaping the Industry. International Journal of Advanced Engineering Technologies and Innovations. 1(03): 264-281.
- [94] Reddy, V.M. (2023) Data Privacy and Security in E-commerce: Modern Database Solutions. International Journal of Advanced Engineering Technologies and Innovations. 1(03): 248-263.
- [95] Reddy, V.M. and L.N. Nalla. (2022) Enhancing Search Functionality in E-commerce with Elasticsearch and Big Data. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 37-53.
- [96] Nalla, L.N. and V.M. Reddy. (2022) SQL vs. NoSQL: Choosing the Right Database for Your Ecommerce Platform. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 54-69.
- [97] Reddy, V.M. and L.N. Nalla. (2021) Harnessing Big Data for Personalization in E-commerce Marketing Strategies. Revista Espanola de Documentacion Cientifica. 15(4): 108-125.
- [98] Reddy, V.M. (2021) Blockchain Technology in E-commerce: A New Paradigm for Data Integrity and Security. Revista Espanola de Documentacion Científica. 15(4): 88-107.
- [99] Nalla, L.N. and V.M. Reddy. (2021) Scalable Data Storage Solutions for High-Volume E-commerce Transactions. International Journal of Advanced Engineering Technologies and Innovations. 1(4): 1-16.
- [100] Reddy, V.M. and L.N. Nalla. (2020) The Impact of Big Data on Supply Chain Optimization in Ecommerce. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 1-20.
- [101] Nalla, L.N. and V.M. Reddy. (2020) Comparative Analysis of Modern Database Technologies in Ecommerce Applications. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 21-39.
- [102] Nalla, L.N. and V.M. Reddy. Machine Learning and Predictive Analytics in E-commerce: A Data-driven Approach.
- [103] Nalla, L.N. and V.M. Reddy. (2024) AI-Driven Big Data Analytics for Enhanced Customer Journeys: A New Paradigm in E-Commerce. International Journal of Advanced Engineering Technologies and Innovations. 1: 719-740.
- [104] Gadde, H. (2024) AI-Powered Fault Detection and Recovery in High-Availability Databases. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 15(1): 500-529.
- [105] Gadde, H. (2024) AI-Driven Data Indexing Techniques for Accelerated Retrieval in Cloud Databases. Revista de Inteligencia Artificial en Medicina. 15(1): 583-615.
- [106] Gadde, H. (2024) AI-Augmented Database Management Systems for Real-Time Data Analytics. Revista de Inteligencia Artificial en Medicina. 15(1): 616-649.
- [107] Gadde, H. (2024) Optimizing Transactional Integrity with AI in Distributed Database Systems. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 621-649.
- [108] Gadde, H. (2024) Intelligent Query Optimization: AI Approaches in Distributed Databases. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 650-691.
- [109] Gadde, H. (2023) Leveraging AI for Scalable Query Processing in Big Data Environments. International

- Journal of Advanced Engineering Technologies and Innovations. 1(02): 435-465.
- [110] Gadde, H. (2023) AI-Driven Anomaly Detection in NoSQL Databases for Enhanced Security. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 14(1): 497-522.
- [111] Gadde, H. (2023) Self-Healing Databases: AI Techniques for Automated System Recovery. International Journal of Advanced Engineering Technologies and Innovations. 1(02): 517-549.
- [112] Gadde, H. (2023) AI-Based Data Consistency Models for Distributed Ledger Technologies. Revista de Inteligencia Artificial en Medicina. 14(1): 514-545.
- [113] Gadde, H. (2022) AI in Dynamic Data Sharding for Optimized Performance in Large Databases. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 13(1): 413-440.
- [114] Gadde, H. (2022) AI-Enhanced Adaptive Resource Allocation in Cloud-Native Databases. Revista de Inteligencia Artificial en Medicina. 13(1): 443-470.
- [115] Gadde, H. (2022) Integrating AI into SQL Query Processing: Challenges and Opportunities. International Journal of Advanced Engineering Technologies and Innovations. 1(3): 194-219.
- [116] Gadde, H. (2022) Federated Learning with AI-Enabled Databases for Privacy-Preserving Analytics. International Journal of Advanced Engineering Technologies and Innovations. 1(3): 220-248.
- [117] Gadde, H. (2021) Secure Data Migration in Multi-Cloud Systems Using AI and Blockchain. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 128-156.
- [118] Gadde, H. (2021) AI-Driven Predictive Maintenance in Relational Database Systems. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 12(1): 386-409.
- [119] Gadde, H. (2021) AI-Powered Workload Balancing Algorithms for Distributed Database Systems. Revista de Inteligencia Artificial en Medicina. 12(1): 432-461.
- [120] Gadde, H. (2020) AI-Assisted Decision-Making in Database Normalization and Optimization. International Journal of Machine Learning Research in Cybersecurity and Artificial Intelligence. 11(1): 230-259.
- [121] Gadde, H. (2020) AI-Enhanced Data Warehousing: Optimizing ETL Processes for Real-Time Analytics. Revista de Inteligencia Artificial en Medicina. 11(1): 300-327.
- [122] Gadde, H. (2020) Improving Data Reliability with AI-Based Fault Tolerance in Distributed Databases. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 183-207.
- [123] Gadde, H. (2019) Integrating AI with Graph Databases for Complex Relationship Analysis. International Journal of Advanced Engineering Technologies and Innovations. 1(2): 294-314