Proceedings of the National Conference on

AI AND FINTECH: CRAFTING THE FUTURE OF GLOBAL BUSINESS

MANIKAM RAMASWAMI COLLEGE OF ARTS AND SCIENCE, MADURAI

Proceedings of the National Conference on

AI and Fintech: Crafting the Future of Global Business

First Volume

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Dr. Aamir Junaid Ahmad

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Preface

The rapid advancements in **Artificial Intelligence (AI) and Financial Technology (FinTech)** have revolutionized the global business landscape, creating new opportunities and challenges for industry professionals, academicians, and researchers. Recognizing the significance of these evolving technologies, the **National Conference on "AI and FinTech: Crafting the Future of Global Business"** was organized on **March 6, 2025**, as a platform to facilitate **knowledge exchange, research collaboration, and industry-academia engagement**.

The conference, hosted by the **Department of Computer Science & Department of Commerce in association with IQAC, Manikam Ramaswami College of Arts and Science, Madurai, in collaboration with CMAOI Association and AMIEE Association**, aimed to explore the **transformative role of AI in financial services, predictive analytics, cybersecurity, blockchain, and digital transformation**.

This **Conference Proceedings** is a compilation of **selected research papers**, each presenting valuable insights, case studies, and empirical findings that contribute to the growing body of knowledge in AI and FinTech. The contributions from **renowned academicians, researchers, and industry experts** reflect the conference's success in fostering **intellectual discussions and technological innovations**.

We extend our gratitude to all **authors, presenters, keynote speakers, session chairs, and participants** who contributed to the success of this event. We hope that this publication serves as a **valuable resource for researchers, academicians, and professionals** striving to navigate the rapidly evolving AI and FinTech landscape.

Happy reading!

Dr. Aamir Junaid Ahmad
Conference Chair
Secretary, CMAOI Association

National Conference 2025:
Ai & Fintech - Crafting the Future

A National Conference On "AI and FinTech: Crafting the Future of Global Business" was held on March 6, 2025. The conference was organized by the Department of Computer science & Department of Commerce in association with IQAC, Manikam Ramaswami College of Arts and Science, Madurai in Collaboration with CMAOI Association and AMIEE Association

Manikam Ramaswami College of Arts and Science (MRCAS)
An Abode for learners, achievers, and dreamers

About MRCAS

Established: 2022

Affiliation: Madurai Kamaraj University, Madurai

Nestled in Madurai as an ingenious hub, MRCAS is more than just a college, it is a place where young minds find enlightenment due to the holistic education offered. Founded by Shri. Manikam Ramaswamy, the institution carries the rich legacy of the Thiagarajar School of Management (TSM), miring tradition with novelty to create an amiable and edifying learning ambience. With a resolute determination to offer meritorious excellence and integrated growth, the college not only aspires to sculpt intellectuals and sagacious learners but also seeks to find parity between intellect, artistry, athleticism, and life skills.

MRCAS is a vital part of an eminent scholastic lineage that includes:

- Thiagarajar School of Management (1962)
- Thiagarajar College of Preceptors (1956)
- Thiagarajar Model Higher Secondary School (1957)
- Visalakshi Aachi Nursery and Primary School

Department of Computer Science

With oscillating episodes of digital evolution and its new wave, the Computer Science program at MRCAS offers an intellectual odyssey into **Data Science, Artificial Intelligence, Cloud Computing, and Cybersecurity**. In association with renowned Tech-Giants such as IBM and HCL, the department's curriculum is precisely handpicked to surpass the traditional pedagogy and enfold the progressing technological paradigm. With the initiation of

postgraduate programs in the academic year 2025-2026, the department assures to hoist its academic validity.

Department of Commerce

The Department of Commerce at MRCAS is a chamber of trade, offering **B.Com and B.Com (Computer Applications)** with its niche areas on **Taxation, Corporate Law, and Competitive Exam Preparation**. The **MRCAS EDGE** program is a post-modern maiden attempt to shape personality development and professional acumen. It further provides an overarching and all-encompassing prerequisite for personal and professional upswings. The academic compass will go forward with postgraduate offerings from 2025 to 2026.

Collaborations & Associations

Commerce and Management Association of India (CMAOI)

A revered organization of commerce, management, and technology professionals, CMAOI is a junction of intellectual higbrow with revolutinizing industry trends. With over 500 illustrious members from academia and industry, the association is a resourceful platform for industry alliance and partnership. The association's initiatives are geared towards shaping the future of commerce and management practices in India, ensuring that members are well-equipped to navigate the evolving business landscape.

AI-ML Innovative Entrepreneurs and Engineers Association (AMIEE)

AMIEE is a distinguished syndicate committed to augmenting Artificial Intelligence, Machine Learning, and entrepreneurial inventiveness. AMIEE is the heart of India's technological resurrection, having a dynamic nexus of around 500 academicians and industry leaders across the board who perform excellent networking, knowledge exchange, and collaboration, aiming to drive progress and innovation in the millennial domain.

National Conference 2025: AI & Fintech - Crafting the Future

Innovation is the key to the future, but collaboration is the key to innovation.

MRCAS was privileged to host its **inaugural National Conference** on March 6, 2025, in concert with CMAOI and AMIEE. The conference captivated **87 research submissions** and presentations from the **University of California**,

contributions from states across India, including Madhya Pradesh, Rajasthan, Gujarat, Andhra Pradesh, Kerala, and Karnataka, and distinguished **NIRF top-ranking institutions**, reflecting the conference's transnational gravitas.

A Tribute to Our Polestars/ Patrons

A great institution thrives under the patronage of visionary leadership, dedicated efforts, and leaders who focus on offering quality education to the young generation. The efforts put behind this conference would stand futile without expressing gratitude to the pillars who are instrumental in painting the ethos of MRCAS.

The cornerstone, **Mrs.Valli Ramasamy, CMD,** for her futuristic vision in equipping young minds to face the digital wave. Her courage and ambitious initiatives to transcend the traditional educational setup play a significant role in making this conference a success

.

The lynchpin of the institution, **Dr. Kalai Selvan, Director**, whose prompt counsel and strategic insights have been crucial in sculpting this well-rounded conference. His prudence and his covenant in creating a brave new academic culture steers the illumined pathways of MRCAS.

The guiding lantern, **Dr. M. Padmavathi, Principal**, whose academic supervision has enkindled a scholastic ecosystem through intellectual endeavors, fortifying the potentials of all the students and helping them gain a participatory experience.

Dr. M. Selvalakshmi, Principal of Thiagarajar School of Management, Madurai. Her leadership and expertise have greatly contributed to academia and industry, and MRCAS is forever indebted, as TSM has been the support system in every way.

Dr. S. Bhooma, Dean, Department of Commerce, MRCAS, and **Dr. Saswati Mukherjee**, Dean, Department of Computer Science, the phenomenal women of MRCAS, for their significant contributions in making this conference a reality.

We extend our earnest appreciation to **Dr. Aamir Junaid Ahmad**, Secretary of CMAOI, a TEDx Speaker, Forbes-listed dignitary, and recipient of the Times Excellence Award. His erudition in the vital territories of commerce and management, specifically in the fluctuating landscape of AI and Fintech, has added immense value to this sagacious treatise.

Ms. Royana Anand, an acclaimed AI researcher and Technical Program Manager at Amazon. Her specialization in artificial intelligence and avant-garde research in this realm are great milestones to the future of technology-driven ambiance. Her contributions, though from afar, have been influential, and her efforts echo far beyond the pages of this publication.

Special thanks to **Dr. Navanath Saharia**, Assistant Professor at IIIT Manipur, an expert in Natural Language Processing, Cybersecurity, and Human-Computer Interaction, who brings a substantial value to this collective pursuit of knowledge.

The cognizance and brilliance of these remarkable experts reaffirms our pledge in making MRCAS a castle of learning, holistic development, and infinite possibilities. It is through such treasured patronage, experts, and partnerships that MRCAS will be ignited with the lamp of enlightenment for generations to come.

Conference Highlights

With the harmony of wit and its delibration, the conference spotlighted keynote addresses, panel discourses, and research orientation, with an intermix of Artificial Intelligence and Fintech. The discussions and ruminations uncovered the evolving and revolutionizing ramifications of AI in financial services, providing the future scope of emerging trends, limitations, and upcoming prospects. Therefore, the conference assimilated the beautiful encounter of tomorrow's reality with today's discernment.

"Join us. Shape the future". A big shout-out to the budding scholars.

Dr. Aruna Kasinathan - Vice Principal and Head of the Department of Commerce

The ingenious paragon, Dr. Aruna Kasinathan, is the Vice Principal and Head of the Department of Commerce at MRCAS, Madurai. She is an academician who adeptly traverses the terrains of commerce with a meritorious academic and professional trajectory. She obtained a doctoral degree from Tiruvallur University, coupled with an M.Phil., M.B.M., and M. Com from Alagappa University, each as an attention to her academic thirst in the acquisition of knowledge in her subject field and has arrayed her competence by qualifying SET from Mother Teresa University.

With almost two decades of teaching experience, she brings a unique profile with a convergence of academic tact and corporate milieu with her professional history of having served the most distinguished roles as the Lead Manager at Karvy Consultancy and a Consultant at Anand Rathi, where she turned out to be a seasoned industrial professional. She has penned a textbook on Digital Banking in India by dispensing knowledge beyond the classrooms and making it contagious. As an endless saga to her accomplishments, she has authored 48 research articles and shoulders the responsibility of a commited lifetime member of SEBI and the Indian Commerce Association with 12 certifications from NISM, NCFM, and NPTEL reflecting her excellence.

Dr. G. Preetha – HoD (Department of Computer Science)

Dr. G. Preetha serves as the Assistant Professor and Head of the Department of Computer Science (specializing in Data Science & Artificial Intelligence) at Manikam Ramaswami College of Arts & Science (MRCAS). With a career stretching for more than two decades in academia and research, she is an eminent spherehead recognized for her commendable contributions to academic research. She has an avid thirst for integrating modern technologies into education, thereby exhibiting her skills in digital architecture. She is an epitome of distinctness who unleashes the art of displaying cognizance in AI and Data Science. Her doctorate from the reputed Anna University speaks volumes about her academic imprint.

Dr. G. Preetha moderated the reputed international journals to lift the academic and research ethics. She is currently a proactive member of various educational societies and boards of studies. This woman of substance facilitates and passes the brand new initiatives offered by the government of Tamil Nadu by serving as Single Point of Contact (SPOC) in AISHE and Naan Mudhalvan, besides embarking on a pivotal responsibility as a Nodal officer in the UMIS. Alongside being a forerunner of the future AI vogues, she aspires to drive students into the growing AI and DS universe.

A Glimpse into the Knowledge Exchange at the AI & FinTech Conference, 2025


Dr.S.BHOOMA
DR. K. ARUNA
Dr. M.SELVALAKSHMI
Dr. M. PADMVATHI
Dr. G.PREETHA

Acknowledgement

The **National Conference on "AI and FinTech: Crafting the Future of Global Business"** was a remarkable success, made possible through the collective efforts of **academicians, researchers, industry experts, and institutional partners**. We would like to take this opportunity to express our sincere gratitude to all those who played a crucial role in the event's success.

First and foremost, we extend our heartfelt appreciation to **Manikam Ramaswami College of Arts and Science (MRCAS), Madurai**, for their unwavering support in providing an academic platform to discuss **cutting-edge research and innovative applications in AI and FinTech**.

We sincerely thank our **collaborating organizations – CMAOI Association and AMIEE Association** – for their invaluable contributions in shaping the event.

A special note of gratitude goes to:

- **Our esteemed keynote speakers and panelists** for sharing their invaluable expertise and industry insights.
- **The authors and presenters** for their **high-quality research papers**, enriching the academic discourse with innovative findings.
- **The organizing and technical committees** for their meticulous planning and seamless execution of the conference.
- **The reviewers and editorial board** for their diligent efforts in ensuring the quality and integrity of the research presented in this conference proceedings.

Finally, we express our gratitude to **all participants and attendees** for their active engagement and thoughtful discussions. It is through such collaborations and academic exchanges that we can drive meaningful advancements in **AI, FinTech, and global business strategies**.

We look forward to future collaborations and continued academic excellence in upcoming events.

Dr. Aruna Kasinathan
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AI ADVANCED CHANGE IN AGRIBUSINESS: THE EFFECT OF ADVANCED INSTALMENTS ON RANCHERS IN MADURAI AREA

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Abstract

The term "computerized instalment" alludes to money-related exchanges that involve the electronic exchange of reserves between parties through computerized stages such as electronic wallets, web banking, and versatile apps. It makes exchanges more secure, simpler, and quicker by eliminating the requirement for physical cash. AI advanced change may be a strategic endeavour in which a firm embraces and joins manufactured insights (AI) into its operations, items, and administrations to boost development, proficiency, and expansion. Credit and charge cards, smartphone instalment apps like PayPal and Apple Pay, and cryptocurrencies such as Bitcoin are all cases of advanced instalment strategies. These procedures have focal points such as lower extortion risk, comfort of recording exchanges, and availability. This study examines the effect of advanced instalments on agrarian proficiency among agriculturists in Madurai Locale, Tamil Nadu, India. According to a survey of 150 ranchers, advanced instalments offer critical benefits such as decreased exchange times, more comfort, and expanded monetary incorporation. However, limitations such as insufficient framework, computer literacy, and security concerns restrain broad adoption. The research suggests government initiatives, rancher training programs, and incentives to boost digital payment utilization. The findings contribute to a deeper understanding of advanced instalments in horticulture, empowering policymakers and stakeholders to increase rural efficiency.

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Keywords: Agricultural efficiency, Digital payments, Financial inclusion, Government initiatives, Instalment.

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Chapter 2

CUSTOMER ACCEPTANCE OF INSURTECH: BEHAVIORAL INTENTION TO ADOPT DIGITAL INSURANCE SERVICES

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Abstract

The fast digital evolution of insurance industries created InsurTech that uses Big Data, Artificial Intelligence (AI) along with novel Blockchain technologies to increase operational performance as well as customer engagement. Behavioral intention to adopt InsurTech is evaluated through the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2), utilizing trust as a mediating variable. A total of 273 South Indian health insurance customers participated in the study by responding to a standardized questionnaire that tested validated UTAUT2 constructs. This study uses SEM in combination with CFA to validate the interrelationships between important predictors and behavioral intention. The research findings show that Performance Expectancy (PE), Social Influence (SI), Effort Expectancy (EE), Facilitating Conditions (FC), Hedonic Motivation (HM), and Habit (H) significantly affect consumer adoption behavior towards InsurTech. Trust serves as a crucial intermediary factor, strengthening its fundamental role in developing consumer faith in digital insurance platforms. The research indicates the necessity of improving trust while promoting intuitive interfaces combined with strong digital systems to boost adoption rates of InsurTech solutions.

Keywords: Insurtech, Artificial Intelligence, Big Data, Blockchain, Hedonic Motivation.

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Chapter 3

WOMEN FINTECH ADOPTION - A BASE TAM FRAMEWORK

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Abstract

Financial technology (Fintech) has transformed financial services by increasing access, efficiency, and ease. However, gender disparities persist, with women lagging behind men in digital financial adoption. Using the Technology Acceptance Model (TAM), this study analyzes elements influencing women's behavioral intention to embrace Fintech services. The research explores perceived ease of use (PEU), perceived usefulness (PU), and their influence on behavioral intention (BI) and actual usage behavior (AB) among women in Ernakulam, India. The study collected responses through Google Forms and analyzed data using SPSS, Pearson Correlation, Confirmatory Factor Analysis (CFA), and Cronbach's Alpha reliability testing. Findings indicate PEU significantly enhances PU, which in turn drives BI. Higher behavioral intention results in increased Fintech adoption. The study underscores the importance of digital literacy, security concerns, and financial independence in shaping women's Fintech adoption. Recommendations include improving security features, simplifying Fintech platforms, and supporting financial literacy programs for women.

Keywords: Fintech adoption, Women, Technology Acceptance Model (TAM), Financial inclusion, Digital literacy.

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Chapter 4

GIG ECONOMY BEYOND METROS: JOB SATISFACTION AND ECONOMIC RESILIENCE IN MADURAI CITY, INDIA

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Abstract

The gig economy has altered the labor market by offering flexible employment while raising concerns about job stability and economic security. Most research has focused on gig work in urban areas, with little emphasis on non-metropolitan regions like Madurai, Tamil Nadu. This study examines factors affecting employment satisfaction among gig workers in Madurai and evaluates the role of economic resilience in determining their job experiences and financial security. Based on data from 90 contract employees, the study identifies flexibility, autonomy, and income potential as key motivators for engaging in gig work. However, challenges like gender disparities, job security concerns, and skill underutilization persist. The findings underscore the need for policy interventions to improve worker protections and enhance economic stability in non-metro gig economies.

Keywords: Gig Economy, Job Satisfaction, Economic Resilience, Online Platforms.

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Chapter 5

A STUDY ON "AI, FINTECH, AND THE GLOBAL ECONOMY: OPPORTUNITIES, CHALLENGES, AND ETHICAL CONSIDERATIONS"

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Abstract

This paper explores how Fintech and Artificial Intelligence (AI) are reshaping financial services, introducing innovation while posing challenges to the global economy. AI-driven Fintech solutions improve risk management, financial inclusion, and operational efficiency. From fraud detection and blockchain-driven smart contracts to automated trading and robo-advisors, AI enhances financial markets. However, concerns around cybersecurity, algorithmic bias, and data privacy remain pressing. Ethical issues such as unfair lending practices, AI-based market manipulation, and financial power concentration are also discussed. Policymakers and financial institutions must balance innovation with responsible regulation to maximize AI's potential while mitigating risks. This study highlights how AI and Fintech influence global finance and outlines future challenges and ethical considerations.

Keywords: FinTech, Artificial Intelligence, Digital Finance, Global Economy, Ethical Considerations.

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Chapter 6

THE FUTURE OF BUSINESS: INTEGRATING AI, FINTECH, AND SUSTAINABLE MARKETING STRATEGIES

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Abstract

The integration of Artificial Intelligence (AI), Financial Technology (Fintech), and Sustainable Marketing is reshaping business operations worldwide. AI-driven automation enhances efficiency, predictive analytics refines decision-making, and machine learning tailors customer experiences. Fintech advancements, including blockchain and AI-powered financial services, redefine business-customer transactions. Concurrently, sustainable marketing fosters socio-friendly branding and corporate responsibility. This research explores AI and Fintech integration through a sustainability lens, assessing its impact on competition, financial performance, and ethical branding. It also examines the balance between innovation and sustainability, highlighting data privacy concerns and greenwashing risks.

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Keywords: AI, Fintech, Sustainable Marketing, Business Innovation, Digital Transformation, Ethical Branding, Corporate Social Responsibility

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Chapter 7

DECODING THE AI REVOLUTION: HOW BUSINESSES ARE EVOLVING

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Abstract

Artificial Intelligence (AI) is reshaping business strategies by automating workflows, enhancing decision-making, and creating new value chains. This study investigates AI's impact on business model evolution, exploring advanced AI frameworks, industry applications, and real-world case studies. It highlights AI-driven firms' competitive advantage, adoption challenges, and future AI research directions. Using qualitative and quantitative analysis, the paper provides insights into AI's role in business transformation.

Keywords: AI, Business Model Innovation, AI-driven Decision-Making, Digital Transformation, Machine Learning, Predictive Analytics

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Chapter 8

FORTIFYING THE FINANCIAL SECTOR: AI-DRIVEN CYBERSECURITY INNOVATIONS

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Abstract

AI is revolutionizing cybersecurity by automating threat detection, accelerating response mechanisms, and enhancing financial security. This study examines AI-powered cybersecurity solutions in the banking sector, reviewing research on AI-driven fraud detection, risk management, and predictive security analytics. The findings suggest AI can enhance cyber defense mechanisms, minimize financial fraud, and improve overall security infrastructure. Future research should focus on collaborative AI-cybersecurity frameworks.

Keywords: Artificial Intelligence, Financial Transactions, Cybersecurity, AI-driven Threat Detection, Fraud Prevention, Risk Management, Deep Learning

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Chapter 9

THE FUTURE OF FINANCE: AI'S ROLE IN CYBERTHREAT PREVENTION

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Abstract

Cyberthreats in the financial sector are evolving, necessitating AI-driven defenses. AI enhances threat intelligence, fraud detection, and risk mitigation. This study examines AI's role in financial cybersecurity, focusing on deep learning, adversarial attack prevention, and blockchain security. The findings suggest AI fortifies financial security, reducing risks and improving data protection. Future developments require innovation and collaboration in AI-cybersecurity integration.

Keywords: AI, Cybersecurity, Threat Intelligence, Fraud Detection, Blockchain Security, Deep Learning, Financial Risk Mitigation

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Chapter 10

AI AND FINTECH: CRAFTING THE FUTURE OF GLOBAL BUSINESS CHALLENGES OF AI ADOPTION IN THE FINANCIAL SECTOR

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Abstract

The AI-driven Fintech revolution is transforming financial ecosystems through automation, machine learning, and advanced analytics. This study explores AI's role in fintech applications such as robo-advisory services, fraud detection, and digital transactions. It discusses AI's potential for enhancing efficiency, security, and customer experience while addressing ethical challenges and regulatory concerns. The paper provides insights into AI governance and responsible fintech innovation.

Keywords: AI, Fintech, Machine Learning, Predictive Analytics, Digital Payments, Fraud Detection, AI Ethics, Financial Inclusion, Algorithmic Trading

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Chapter 11

AI-DRIVEN INNOVATION IN BUSINESS MODEL

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Abstract

The integration of Artificial Intelligence (AI) into business models is transforming industries by enhancing efficiency, personalization, and strategic decision-making. AI-driven solutions, including predictive analytics, automation, and intelligent systems, enable businesses to optimize operations, elevate customer experiences, and foster innovation in products and services. This review article explores AI's role in reshaping market strategies, improving operational agility, and strengthening competitive advantage. While AI presents significant opportunities, challenges such as ethical concerns, data privacy, and workforce reskilling must be addressed. The study emphasizes the need for a

balanced AI adoption strategy to ensure sustainable, ethical, and responsible business growth.

Keywords: Artificial Intelligence (AI), Business Model, Innovation, Predictive Analytics, Automation, Strategic Decision-Making

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Chapter 12

SUSTAINABLE INNOVATION: HOW AI AND FINTECH ARE RESHAPING WORK AND BUSINESS

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Abstract

The merger of Artificial Intelligence (AI) applications and Financial Technology (Fintech) has significantly transformed the financial services industry, fostering innovation in sustainable business models, workforce development, and environmental impact. AI-powered Fintech solutions enhance risk assessment, fraud detection, operational efficiency, and personalized financial services. This research explores AI's role in sustainable finance, green investments, capital allocation optimization, and regulatory compliance. Despite its potential, AI integration in Fintech faces challenges such as ethical concerns, data privacy threats, and regulatory complexities. The paper discusses governance structures and ethical AI frameworks essential for risk management. Additionally, it explores AI's application in climate risk management, offering recommendations for financial service providers and policymakers on sustainable development and AI-driven Fintech advancements.

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Chapter 13

AI-POWERED TRANSFORMATION: RESHAPING BUSINESS FOR THE DIGITAL ERA

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Abstract

Artificial Intelligence (AI) is revolutionizing business operations by enhancing efficiency, driving innovation, and strengthening competitive advantage. AI-powered automation, predictive analytics, and personalized customer experiences reshape industries, enabling companies to optimize decision-making, streamline workflows, and unlock new revenue opportunities. This review highlights AI's transformative impact on business models, discussing benefits and challenges such as ethical considerations, workforce disruption,

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and cybersecurity vulnerabilities. Organizations that strategically integrate AI while balancing technological advancements with human creativity and responsible implementation will thrive in the evolving digital economy.

Keywords: Artificial Intelligence (AI), Business Innovation, Predictive Analytics, Automation, Cybersecurity

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Chapter 14

AI-POWERED INNOVATION IN BUSINESS MODELS: MAKING STRATEGIC DECISIONS AND PREDICTIVE ANALYTICS WITH MACHINE LEARNING

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Abstract

As digital transformation accelerates, AI-driven business models provide a competitive edge by leveraging predictive analytics, automation, and intelligent decision-making. AI technologies optimize operations, reduce costs, and enhance customer experiences through real-time data analysis. This study focuses on implementing a machine learning algorithm, specifically a Random Forest model, to forecast business performance based on marketing investments, economic conditions, and competitive factors. The research examines key business parameters such as marketing expenditure, customer acquisition costs, industry competition, and macroeconomic indicators. The findings demonstrate AI's potential in identifying trends, minimizing risks, and enabling data-driven strategies for sustainable business growth. AI-driven automation allows businesses to adapt to market fluctuations, enhancing strategic planning and optimizing resource allocation.

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Chapter 15

INTEGRATING TECHNOLOGY AND SUSTAINABILITY FOR BUSINESS SUCCESS

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Abstract

This study explores the intersection of Financial Technology (Fintech), Artificial Intelligence (AI), and sustainable marketing strategies in reshaping business operations. The research aims to identify the synergies and challenges of integrating these technologies while offering practical insights for businesses seeking sustainability and competitiveness. Employing a mixed-methods approach, the study combines quantitative market data analysis with qualitative expert interviews. Findings reveal that AI and Fintech integration enhances customer experiences, improves operational efficiency, and opens new revenue streams. Sustainable marketing techniques positively influence consumer engagement, fostering long-term brand loyalty. The research underscores the vast potential of AI, Fintech, and sustainable marketing convergence for future business success.

Keywords: Machine Learning (ML), Natural Language Processing (NLP), Generative AI, Robotic Process Automation (RPA), Blockchain & Cryptocurrency, Digital Payment & E-wallet, Open Banking API, Big Data & Analytics, Green AI, Internet of Things (IoT), Augmented Reality (AR) & Virtual Reality (VR), Carbon Footprint Tracking Tools, AI-powered ESG Analytics, Tokenized Carbon Credits, AI-driven Personalized Green Marketing.

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Chapter 16

AI ADOPTION IN SMALL VS. LARGE BUSINESSES: EMPLOYMENT IMPACTS AND ADAPTATION STRATEGIES

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Abstract

Artificial intelligence (AI) is rapidly transforming the business landscape, impacting both small and large organizations. However, the adoption of AI and its subsequent effects on employment differ significantly based on company size. This paper explores the varying rates of AI adoption, the diverse employment impacts (including job displacement and creation), and the unique adaptation strategies employed by small and large businesses. We examine the opportunities and challenges presented by AI, focusing on how each business type can leverage AI to enhance productivity, innovation, and competitiveness while mitigating potential negative consequences for the workforce.

Keywords: Artificial Intelligence, AI Adoption, Small Businesses, Large Businesses, Employment Impacts, Job Displacement, Job Creation, Adaptation Strategies, Skills Gap, Reskilling, Upskilling.

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Chapter 17

ARTIFICIAL INTELLIGENCE IN ELECTRONIC PAYMENTS

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Abstract

The rapid growth of digital payments has necessitated the development of secure, efficient, and personalized payment systems. Artificial Intelligence (AI) has emerged as a key technology in transforming the digital payments landscape. This paper explores the integration of AI in digital payments, highlighting its applications in fraud detection, risk management, customer authentication, and personalized payment services. AI-powered chatbots and virtual assistants are also discussed as tools for enhancing customer experience and streamlining payment processes. Furthermore, the paper examines the challenges and limitations associated with AI adoption in digital payments, including data privacy concerns and regulatory compliance. Ultimately, this research demonstrates the potential of AI to revolutionize digital payments, enabling secure, efficient, and customer-centric payment experiences.

Keywords: Artificial Intelligence, Digital Payments, Fraud Detection, Risk Management, Customer Authentication, AI-powered Chatbots, Data Privacy, Regulatory Compliance.

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Chapter 18

THE IMPACT OF AI-DRIVEN INNOVATION ON FUTURE BUSINESS MODELS

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Abstract

Artificial Intelligence (AI) is rapidly transforming the global business landscape, driving innovation across industries and forcing companies to rethink their core strategies and operations. This paper explores the profound impact of AI-driven innovation on future business models. We examine how AI is enabling new revenue streams, enhancing customer experiences, optimizing processes, and ultimately reshaping competitive dynamics. Furthermore, we discuss the challenges and opportunities associated with adopting AI, highlighting the importance of ethical considerations, workforce adaptation, and strategic implementation for successful AI integration.

Keywords: Artificial Intelligence, Business Models, Innovation, Automation, Customer Experience, Competitive Advantage, Digital Transformation, Ethics.

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Chapter 19

A STUDY OF THE IMPACT OF ARTIFICIAL INTELLIGENCE ON COMMERCE AND MANAGEMENT

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Abstract

Artificial Intelligence (AI) has emerged as a transformative force, reshaping industries across the globe. Commerce and management, in particular, have witnessed significant disruption and innovation due to AI integration. This paper explores the profound impact of AI on commerce and management, analyzing its applications in areas such as supply chain management, customer service, decision-making processes, and financial management. By examining AI's role in driving efficiency, enhancing decision-making, and creating new business models, this study highlights both the opportunities and challenges associated with AI adoption in these domains.

Keywords: Artificial Intelligence, Commerce, Management, AI in Business, Decision-Making, Supply Chain, Customer Service, Financial Management.

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Chapter 20

AI IN FINTECH: CRAFTING SMARTER MARKETS AND TRANSFORMING BUSINESS

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Abstract

The integration of Artificial Intelligence (AI) in financial technology (Fintech) is reshaping traditional financial services, creating smarter markets, and transforming business operations. This paper explores the impact of AI on Fintech, highlighting key innovations, challenges, and future directions. It examines AI-driven applications such as automated trading, fraud detection, personalized financial services, and risk management. Furthermore, the study discusses the ethical and regulatory considerations associated with AI in financial markets. The findings suggest that AI enhances efficiency, reduces operational costs, and improves decision-making, paving the way for a more intelligent and inclusive financial ecosystem.

Keywords: Artificial Intelligence, Fintech, Smart Markets, Business Transformation, Financial Services, Machine Learning, Automation

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Chapter 21

A STUDY OF PRIME MINISTER EMPLOYMENT GENERATION PROGRAMME AND ITS IMPACT ON GENERATION OF SELF-EMPLOYMENT PROGRAMME WITH SPECIAL REFERENCE TO AMBALA DIVISION OF HARYANA STATE IN RELATION TO AI

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Abstract

This research paper aims to examine the impact of the Prime Minister Employment Generation Programme (PMEGP) on self-employment opportunities, with a special focus on the Ambala Division of Haryana State. The study explores the role of various sources of information, including artificial intelligence (AI), in enhancing the awareness levels of beneficiaries regarding PMEGP. The findings will highlight the effectiveness of AI-driven tools in disseminating program-related information and improving accessibility to government schemes.

Keywords: PMEGP, Self-Employment, Artificial Intelligence, Information Sources, Awareness, Beneficiaries, Ambala Division, Haryana

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Chapter 22

VIRTUAL RESEARCH COOPERATIVE IMPACT OF ARTIFICIAL INTELLIGENCE ON PERSONALIZED MARKETING STRATEGIES

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Abstract

Artificial intelligence (AI) is transforming the advertising industry by shifting from broad, generic marketing strategies to highly targeted and personalized advertisements created through AI technologies. Recent advancements in AI and machine learning enable businesses to customize and optimize marketing messages on a large scale. By utilizing extensive data, companies can gain deeper insights into their clients' individual preferences and desires, allowing them to tailor messaging and recommendations throughout the buyer's journey. This research paper aims to thoroughly examine the significant impact of AI on personalized marketing strategies. It investigates how these technologies facilitate customized, data-driven approaches in marketing initiatives. The study also focuses on evaluating the effectiveness and limitations of implementing AI-powered personalized marketing strategies in Coimbatore City. To achieve the research objectives, 200 business owners and marketing specialists were surveyed. The results of this study were analyzed using various statistical tools, including Simple Percentage Analysis, ANOVA, Chi-Square, and Correlation. The findings suggest that AI has revolutionized marketing by enabling companies to enhance decision-making, optimize marketing efforts, and deliver personalized customer experiences.

Keywords: Artificial Intelligence, Consumer Engagement, Personalized Marketing, Purchase Behavior, Marketing Agencies, Data-Driven Marketing, AI Optimization

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Chapter 23

DEVELOPMENT OF A COFFEE WILT DISEASE IDENTIFICATION MODEL USING DEEP LEARNING

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Abstract

Coffee, commonly known as Coffee Arabica, is Ethiopia's most significant beverage. Coffee production in Ethiopia is affected by a number of abiotic and biotic factors, the most prominent of which are diseases caused by a range of etiologic agents, especially fungus. A multitude of diseases harm the stems, leaves, fruits, and roots of the crop, lowering its yield and marketability. Ethiopia was the first place where the Fusarium wilt disease on Coffee Arabica was discovered. In this study, a deep learning method for the automatic detection of coffee wilt disease is proposed. The investigation was carried out in three stages. First, we collected images of healthy and diseased coffee. Secondly, we developed a convolutional neural network (CNN) that can tell the difference be- tween healthy images and images of infected/diseased coffee leaves. Finally, we tuned the dataset to train and test the developed model. For the purpose of experimentation, we collected 4000 images of healthy and infected coffee leaves. 80% of the obtained dataset was utilized to train the model, while the remaining 20% is randomly picked to test the CNN model. The suggested model efficiently grouped the input image with a mean training accuracy of 98.1% and a mean test accuracy of 97.9% as a result of experimentation using a learning rate of 0.0001, a Sigmoid output layer activation function, 100 epochs, and an 8:2 training and testing dataset ratio.

Keywords: Coffee Arabica, Coffee Wilt Disease, Computer Vision, Convolutional Neural Network, Deep Learning, Image Classification, Agricultural AI

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Chapter 24

A STUDY ON THE IMPACT OF DIGITAL AMENITIES AND CUSTOMER LOYALTY PROGRAMS ON CUSTOMER SATISFACTION IN FIVE-STAR HOTELS IN ERNAKULAM DISTRICT

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Abstract

The current study examines the influence of digital facilities and customer loyalty programs on customer satisfaction in five-star hotels in the Ernakulam district. Using a sample of 210 guests, various statistical analyses such as multiple regression, Pearson correlation, and independent samples t-test, were used to test this relationship. Regression analysis suggested that digital workplaces contributed positively to customer satisfaction, accounting for 41.2% of the variance. Digital products + loyalty programs together explained 54.6% of the variance in customer satisfaction. There is no statistically significant difference between guests who use digital products and guests enrolled in loyalty programs when it comes to satisfaction levels according to t-test. Factor the findings underscore the significance of integrating sophisticated digital technologies into efforts in the luxury hotel industry means of boosting

Keywords: Customer Satisfaction, Digital Amenities, Customer Loyalty Programs, Five-Star Hotels, Hospitality Industry, Customer Retention

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Chapter 25

AI ADOPTION IN ONLINE FOOD DELIVERY: TRANSFORMING CUSTOMER BEHAVIOR AND BUSINESS SUSTAINABILITY

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Abstract

Digital transformation in food delivery rapidly accelerated AI adoption because it generates improved customer experiences along with operation optimization and sustainability benefits. This analysis examines how artificial intelligence technologies including user-specific recommendation engines together with predictive analysis and AI-based chatbots modify customer actions in e-food purchasing. The research analyzes AI's transformative power on customer preferences as well as business efficiency and decision quality improvement by using survey data alongside Swiggy, Zomato, and Uber Eats case studies. The research demonstrates how AI engagement boosts through individualized suggestions while optimizing sustainable delivery routes alongside creating trust through anti-fraud capabilities. The technical implementation of AI triggers essential ethical difficulties because it threatens user privacy as well as generates biased algorithms and disrupts employment opportunities. The research presents usable insights about how food delivery businesses should utilize AI technology to produce customer-oriented innovations while deploying responsible artificial intelligence systems. The study actively participates in academic dialogue about artificial intelligence-based factors affecting consumer habits and sustainable business frameworks in online food delivery services.

Keywords: Artificial Intelligence, Online Food Delivery, Consumer Behavior, AI-Powered Recommendations, Predictive Analytics, Business Sustainability, Ethical AI

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Chapter 26

HARNESSING AI FOR EFFECTIVE LANGUAGE TEACHING: INNOVATIONS IN HINDI AND URDU INSTRUCTION

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Abstract

Artificial Intelligence (AI) is transforming language education by offering personalized, interactive, and immersive learning experiences. This paper examines the role of AI in teaching Hindi and Urdu, highlighting its advantages, challenges, and real-world applications. The research explores AI-driven tools such as chatbots, speech recognition software, and gamification platforms, assessing their impact on vocabulary acquisition, pronunciation, and contextual learning. Despite the promising advancements, AI implementation in language instruction presents challenges, including dialectal variations, script complexity, and cultural nuances. This study aims to provide a balanced perspective on AI's capabilities and limitations in Hindi and Urdu instruction, offering recommendations for effective integration in language classrooms.

Keywords: Artificial Intelligence, Language Learning, Hindi, Urdu, Chatbots, Speech Recognition, Gamification, Personalized Learning

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Chapter 27

AI IN FANTASY LEAGUE FINANCIAL MARKETING: PERSONALIZATION, ETHICAL CONCERNS, AND CONSUMER TRUST

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Abstract

The growth of fantasy league applications has faced phenomenal excellence in recent years. Fantasy sports platforms have gained immense popularity, particularly in countries like India, the U.S., and the U.K., driven by the rapid adoption of smartphones, digital payments, and sports fandom. Initially, fantasy leagues operated as manual, spreadsheet-based prediction games, but with advancements in AI, machine learning (ML), and big data analytics, they have evolved into sophisticated, AI-powered platforms. It has been a revolution in the sports and gaming industry through financial incentives and strategic gameplay. Applications such as Dream 11, MPL, and My11Circle leverage AI to enhance user experience by providing personalized recommendations and optimizing financial transactions. AI-driven personalization enables dynamic contest suggestions and real-time promotional offers, thereby maximizing user engagement and retention. However, this transformation among fantasy league apps raises significant ethical concerns such as data privacy risks, algorithmic biases, gambling-like addictions, and a lack of transparency in AI-driven recommendations.

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This paper provides a comprehensive survey on how AI transforms fantasy league financial marketing by analyzing personalization strategic patterns, ethical dilemmas, and impact on consumer trust. We explore how AI-driven algorithms impact user engagement, spending patterns, decision-making, and fair play within these platforms. As AI continues to shape fantasy league marketing, the industry must balance innovation with ethical responsibility, ensuring fair play, data security, and transparency to maintain consumer trust. This paper highlights the growing need for transparent, unbiased, and ethically responsible AI models to ensure sustainable and healthy growth in the fantasy gaming industry while maintaining a safer environment with better consumer trust.

Keywords: Fantasy league applications, AI-driven algorithm, Personalization, Ethical concerns, Consumer trust, Fair play.

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Chapter 29

AI-DRIVEN CYBER THREAT MITIGATION IN FINANCIAL ANALYTICS

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Abstract

The digitization of financial services has increased cyber threats, making AI and ML essential for real-time detection and mitigation. AI-driven systems identify fraud, phishing, and insider threats through behavioral analysis and anomaly detection, while ML enhances accuracy by adapting to new risks. Automated AI responses accelerate mitigation, reducing financial and reputational damage. Deep learning and NLP strengthen cybersecurity by analyzing unstructured data and detecting social engineering attacks. Addressing challenges like data privacy and adversarial attacks is crucial for reliability. Integrating AI ensures proactive defense, securing the digital financial ecosystem.

Keywords: AI-driven, Cybersecurity, Anomaly detection, Machine learning, Threat mitigation.

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Chapter 29

REVOLUTIONIZING BUSINESS MODELS WITH AI

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Abstract

Artificial Intelligence (AI) is transforming traditional business models by enhancing decision-making, optimizing operations, and driving innovation across industries. This review paper explores the latest advancements in AI-driven business models, highlighting their impact on various sectors. AI enables organizations to create new revenue streams, enhance customer experiences, and improve operational efficiency. By analyzing case studies, this review provides insights into how businesses can leverage AI for competitive advantage. The findings emphasize that AI is not merely a technological advancement but a fundamental shift in business strategy, reshaping the way organizations operate and compete in the digital era.

Keywords: Artificial Intelligence (AI), Business Models, Competitive Advantage, AI-driven Innovation, Customer Experience, Digital Transformation.

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Chapter 30

FUTURE OF AI IN CYBERSECURITY OF THE FINANCIAL SECTOR

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Abstract

Artificial Intelligence (AI) is transforming financial services, with significant applications in fraud detection, cybersecurity, encryption, risk management, and regulatory compliance. AI-based fraud detection systems revolutionize how financial institutions identify and prevent fraudulent activities in real-time. AI-driven encryption techniques enhance transaction security, safeguarding sensitive data in an increasingly digital world. Despite these benefits, challenges such as AI bias, ethical concerns, and balancing automation with human oversight remain critical. This paper presents an overview of these advancements, challenges, and future directions, emphasizing the need for transparent, ethical, and effective AI applications in financial services.

Keywords: Artificial Intelligence (AI), Fraud Detection, Cybersecurity, Machine Learning, Reinforcement Learning (RL), Deep Learning (DL).

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Chapter 31

THE FUTURE OF BUSINESS INTEGRATING AI, FINTECH, AND SUSTAINABLE MARKETING STRATEGIES

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Abstract

This study explores the integration of sustainability practices into digital accounting and finance through AI-enabled FinTech. The research identifies gaps in existing literature and examines the long-term impacts of AI-enabled FinTech on sustainability paradigms. Through a systematic literature review and the Fuzzy Delphi method, the study evaluates the transformative effects of AI in optimizing investment portfolios, enhancing risk assessment, promoting financial inclusion, and streamlining sustainability reporting. Findings highlight the need for comprehensive investigations into the sustainability implications of AI-enabled FinTech and emphasize the significance of aligning AI with sustainable business practices to drive positive social, environmental, and financial outcomes.

Keywords: AI-enabled FinTech, Sustainability Practices, Digital Accounting, Risk Assessment, Financial Inclusion.

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Chapter 32

A STUDY ON CYBERSECURITY RISKS AND THE MEASURES TAKEN TO MITIGATE RISKS WITH REFERENCE TO THE BANKING INDUSTRY – A DETAILED STUDY RELATED TO AI

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Abstract

As Artificial Intelligence (AI) continues to permeate various sectors of society, its implications on risk management have become a topic of significant debate and scrutiny. This Review paper seeks to investigate whether AI exacerbates existing risks or serves as a tool to mitigate them in the Banking Industry. The study will evaluate AI's effectiveness in addressing risks associated with cybersecurity and if it will help to mitigate those risks in the field of Banking. This Review paper intends to have a detailed insight on the cybersecurity risks in the Banking field as well as the measures taken to mitigate these risks .This study can be a paving path to mitigate the risks and also to suggest few measures to protect the customers from cybersecurity frauds. This paper concludes that total eradication of risk is not possible but the risks can be significantly reduced with the implementation of internal control measures. Ultimately, the paper aims to foster a balanced understanding of AI's risk landscape and inform strategies for its responsible deployment in the digital age paving the way for responsible and sustainable innovation in the banking sector .It also aims to provide a detailed understanding of AI's role in risk dynamics in the Banking field.

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Keywords: Artificial Intelligence, AI governance, Cybersecurity risks, Banking Industry, Risk mitigation, Customer protection.

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Chapter 33

AI-DRIVEN INNOVATION IN PRODUCT DEVELOPMENT AND DESIGN

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Abstract

Artificial Intelligence (AI) is revolutionizing product development and design by enabling automation, data-driven insights, and enhanced creativity. AI-powered tools such as generative design, machine learning, and predictive analytics help designers optimize performance, reduce costs, and accelerate innovation cycles. Digital twins and AI-driven simulations improve prototyping, minimizing reliance on physical testing. Industries like automotive, healthcare, and consumer electronics leverage AI for customized, sustainable, and adaptive product solutions. AI also enhances user experience through personalization and real-time modifications. However, challenges such as data privacy, ethical considerations, and human-AI collaboration persist. This article explores AI's transformative role in product innovation, highlighting its impact on efficiency, creativity, and competitiveness. By integrating AI into design processes, businesses can drive differentiation, meet evolving consumer needs, and unlock new possibilities for the future of product development.

Keywords: AI, Product Testing, R&D, NPD, Analysis, Advancements, Insights.

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Chapter 34

ARTIFICIAL INTELLIGENCE AND BUSINESS MODEL INNOVATION: A REVIEW FROM DYNAMIC CAPABILITIES THEORY

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Abstract

Artificial Intelligence (AI) has become a transformative force in business model innovation (BMI), allowing firms to sense opportunities, seize competitive advantages, and reconfigure their strategies in dynamic environments. This review paper This study examines how Artificial Intelligence (AI) reshapes Business Model Innovation (BMI) by extending Dynamic Capabilities Theory (DCT). It introduces the AI-Driven Dynamic Capabilities Model (AIDCM), which conceptualizes AI's role in sensing, seizing, and transforming business opportunities. The study also addresses ethical and governance challenges arising from AI-driven transformations.

Keywords: Artificial Intelligence, Business Model Innovation, Dynamic Capabilities Theory, AI-Driven Transformation, Strategic Agility, Ethical AI Governance.

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Chapter 35

HEART CANCER SYMPTOMS AND AI DETECTION TOOLS: A COMPREHENSIVE REVIEW OF AI'S ROLE IN DETECTING CARDIAC SARCOMAS

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Abstract

Heart cancer, or cardiac sarcoma, is an extremely rare malignancy with an incidence of less than 0.03% in reported cancer cases. Due to its rarity, it remains underdiagnosed and is often discovered at advanced stages when symptoms become severe. The non-specific nature of symptoms and resemblance to other cardiac conditions make early diagnosis a major challenge. Artificial intelligence (AI) has significantly improved medical diagnostics in various fields, including cardiology and oncology. AI-based tools, such as machine learning models and deep learning networks, have successfully identified cardiac anomalies, including arrhythmias, coronary artery disease, and heart failure. This paper explores the potential role of AI in detecting heart cancer, leveraging advanced imaging techniques, patient data analysis, and predictive modeling. While AI-based detection methods for heart cancer are still in their infancy, integrating AI with MRI, CT scans, echocardiography, and genetic data analysis could revolutionize early diagnosis and treatment.

Keywords: AI in Cardiology, Cardiac Sarcoma, Machine Learning, Medical Imaging, Predictive Modeling, Healthcare AI.

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Chapter 36

A HEAD-TO-HEAD COMPARISON OF POPULAR PLANT IDENTIFICATION APPS

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Abstract

Plant Snap and Leaf snap are two popular mobile applications for plant identification. This study compares the effectiveness, features, and functionality of both apps. The results show that while Leaf snap excels in specialized tree identification, Plant Snap offers a broader plant database and additional features. Ultimately, the choice between the two apps depends on the user's specific needs and preferences.

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Chapter 37

IMAGE TEXTURE ANALYSIS-METHODS TO APPLICATIONS

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Abstract

The texture is one of the most important features for identifying the object or region of interest in an image. This paper discusses the different approaches used for analyzing the texture property of an image such as structural method, transform method, statistics method, and model-based method. Texture analysis is a vital step in texture classification, image segmentation, and identification of image shape. This paper reviews the various aspects of texture analysis based on available literature. Texture analysis methods have been used in different application domains.

Keywords: feature extraction, classification, segmentation, texture analysis.

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Chapter 38

THE ROBOTICS FACE-OFF: A COMPARISON OF TWO CUTTING-EDGE ROBOT DESIGNS

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Abstract

This comparative study examines the differences between humanoid robots and traditional robots, highlighting their distinct characteristics, advantages, and applications. Humanoid robots, designed to mimic human appearance and movement, offer advanced interaction capabilities and adaptability in complex environments. In contrast, traditional robots are purpose-built for specific tasks, prioritizing efficiency, and precision over human-like interaction.

Keywords: Humanoid robots, traditional robots, human-like interaction, adaptability, complex environments, efficiency, precision, advanced interaction

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Chapter 39

GREENHOUSE AUTOMATION

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Abstract

Greenhouse automation, driven by advanced technologies, aims to optimize environmental conditions within controlled environments to improve agricultural productivity. It involves the use of automated systems to monitor and control factors like temperature, humidity, light, and irrigation. The integration of Artificial Intelligence (AI) in greenhouse automation is revolutionizing the way crops are grown, offering enhanced precision and efficiency in greenhouse management. AI enhances automation by enabling predictive analytics, optimizing conditions for specific crops, detecting anomalies, and supporting data-driven decision-making. Key applications include AI-powered smart irrigation systems, climate control, crop health monitoring, and automated pruning systems. These technologies help in adjusting water supply based on environmental variables, maintaining ideal growing conditions, detecting early signs of pests or diseases, and streamlining labor-intensive tasks like pruning. The benefits of AI integration include increased efficiency, improved crop yields, reduced energy consumption, and

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enhanced decision-making capabilities, ultimately leading to more sustainable and cost-effective farming practices. However, challenges such as ensuring data quality, managing cybersecurity risks, scalability concerns, and the need for workforce training must be addressed to fully realize the potential of AI in greenhouse automation. As the industry evolves, AI's role will continue to expand, providing opportunities for innovation in agricultural practices and contributing to more sustainable food production systems. The future of greenhouse automation lies in refining these technologies to achieve greater scalability, accessibility, and efficiency for diverse agricultural operations.

Keywords: Greenhouse automation, artificial intelligence, AI-powered systems, precision agriculture, smart irrigation, climate control, crop health monitoring, automated pruning, predictive analytics, environmental optimization, data-driven decision-making, sustainability, efficiency, agricultural productivity, controlled environments

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Chapter 40

AI-DRIVEN INNOVATION IN BUSINESS MODELS

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Abstract

Artificial Intelligence (AI) is transforming business models across industries by enhancing efficiency, enabling automation, and fostering innovation. Businesses are leveraging AI to create new revenue streams, optimize decision-making, and improve customer engagement. This paper explores how AI-driven innovation is reshaping traditional business models and introduces new paradigms such as AI-as-a-Service (AIaaS), intelligent automation, and data monetization. The study examines key AI applications, including predictive analytics, customer personalization, robotic process automation (RPA), and AI-powered decision support systems. Furthermore, the paper discusses challenges such as ethical concerns, data privacy, workforce displacement, and regulatory frameworks while offering strategic recommendations for businesses to integrate AI successfully.

Keywords: Artificial Intelligence, AI-driven innovation, business models, AI-as-a-Service (AIaaS), intelligent automation, data monetization, predictive analytics, customer personalization, robotic process automation (RPA)

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Chapter 41

NAVIGATING THE REVOLUTION: A STUDY ON THE IMPACT OF ARTIFICIAL INTELLIGENCE ON BUSINESS OPERATIONS

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Abstract

The business landscape is rapidly changing across industries due to artificial intelligence (AI). This study examines the complex effects of artificial intelligence (AI) on a range of company activities, from automation and efficiency gains to strategic decision-making and improved customer experiences. This research explores the benefits and obstacles presented by AI adoption in enterprises by a thorough assessment of the current literature, case studies, and interviews with industry professionals. Important discoveries highlight how AI plays a vital role in process optimization, fostering creativity, and transforming organizational structures. The report also looks into future trends, labor consequences, and ethical issues related to integrating AI into business operations. Through shedding light on the revolutionary potential of AI, our research seeks to assist organizations in efficiently utilizing its potential to provide competitive advantage and long-term prosperity in the digital era.

Keywords: Innovation, customer experience, automation, efficiency, business operations, robotics, ethical considerations, workforce implications, and future trends.

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Chapter 42

ROLE OF AI IN CYBERSECURITY OF THE FINANCIAL SECTOR

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Abstract

In recent years, cryptocurrencies have emerged as a prime digital currency and an essential asset within the financial system. To mitigate investment risks, predict price trends, optimize portfolio construction, and enhance fraud detection, Artificial Intelligence (AI) techniques are increasingly being employed. This paper explores recent research on AI applications in cryptocurrency and Bitcoin, the most widely used cryptocurrency. AI and Machine Learning (ML) techniques such as Support Vector Machines (SVM), Artificial Neural Networks (ANN), Long Short-Term Memory (LSTM), Gated Recurrent Units (GRU), and other relevant studies are reviewed to highlight

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their effectiveness in cryptocurrency markets. Additionally, this study identifies potential research opportunities to improve efficiency and accuracy. The past few years have witnessed significant advancements in AI and cybersecurity, particularly in finance, influencing markets, institutions, and regulatory frameworks. AI is reshaping financial interactions by streamlining processes such as credit judgments, quantitative analysis, marketing strategies, and economic risk management, ultimately fostering a more secure and efficient financial ecosystem.

Keywords: Cryptocurrency, Bitcoin, Artificial Intelligence (AI), Machine Learning (ML), Price Prediction, Fraud Detection, Financial Risk Management

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Chapter 43

AI-DRIVEN CYBERSECURITY IN CRYPTOCURRENCY AND BANKING SYSTEMS: AN ADVANCED REVIEW

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Abstract

The rapid digitalization of the financial sector has introduced unprecedented convenience while simultaneously exposing banking and cryptocurrency systems to sophisticated cyber threats. Traditional cybersecurity measures are proving inadequate against evolving cyberattacks, necessitating the integration of Artificial Intelligence (AI)-driven security solutions. AI has transformed cybersecurity by enabling real-time threat detection, predictive analytics, and automated fraud prevention. This paper provides a comprehensive review of AI's role in safeguarding cryptocurrency and banking systems, analyzing the latest AI-powered security techniques, real-world implementations, and emerging challenges. The study synthesizes insights from multiple research studies, focusing on advanced AI models, federated learning, quantum cryptography, and AI-driven zero-trust security frameworks. The findings underscore AI's growing importance in proactive cybersecurity strategies, ensuring a resilient financial ecosystem in the face of ever-evolving cyber threats.

Keywords: AI-driven cybersecurity, Cryptocurrency, Banking Systems, Threat Detection, Fraud Prevention, Federated Learning, Quantum Cryptography, Zero-Trust Security

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Chapter 44

A CLASSIFIED PERSPECTIVE OF DATA HIDING FOR WATERMARKING USING IMPROVED LSB FOR DATA COMPRESSION

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Abstract

In the internet era, the information hiding plays an important role now-a-days for providing security. Even though we are using different file formats as cover image, the digital image based hiding is most popular on internet. Information hiding means concealing secret information in same or another medium. It is used to provide some security in the way of giving restrictions to access the data by the unauthorized personnel. This paper mainly focused on introducing a new framework for image hiding and also for text hiding. In addition to the above topics, it concentrated on the enhancement of quality & capacity of the hiding method [1]. The capacity of hiding secret data is restricted and depends on the size of the cover image. Hence the quality of hided image and capacity of hiding are still a challenging task and this is the goal of our proposed method. It is based on the simple Least Significant Bit substitution method [2]. The newly developed methods cannot be decoded without knowing the new method. X-OR operation is used in stego key to generate new bit planes of the stego image. A RGB color image is used as secret and cover image. The proposed method greatly increases the embedding capacity without significantly decreasing the PSNR value. Here six 24-bit image has been used as reference image and after applying this method, the Compression Ratio, Embedding Ratio, PSNR and Space Save has been increased by 24%, 53%, 36% and 47% respectively. By using this new method, not only the security of the secret data increases but also it increases the quality of the hided image. The result shows that the newly

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developed method improved the value of Accuracy by 30%, sensitivity by 16% for the hided image.

Keywords: PSNR, FNR, Sensitivity, MSE, Embedding Ratio (ER).

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Chapter 45

EFFECT OF BROKEN LINKS AND DEAD CODES ON OPEN SOURCE CODE REPOSITORIES

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Abstract

This article explores the impact of broken links and dead code on the functionality and sustainability of open-source code repositories. Broken links, often due to outdated or removed external resources, can disrupt the flow of information, hindering developers' ability to access critical documentation, libraries, or tools. Dead code, or code no longer in use but remains in the repository, contributes to codebase bloat, making maintenance more complex and potentially introducing vulnerabilities. The study examines various tools and methodologies for identifying and addressing these issues, emphasizing the importance of regular maintenance and community collaboration in maintaining the integrity of open-source projects. By understanding the effects of broken links and dead code, developers can improve the quality and longevity of open-source repositories, ultimately fostering more robust and reliable software ecosystems.

Keywords: Broken links, Dead code, Open-source repositories, Code maintenance, Software sustainability, Code quality, Developer collaboration, Repository integrity.

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Chapter 46

DETECTING PLANT LEAF DISEASE USING A CONVOLUTIONAL NEURAL NETWORK (CNN)

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Abstract

Agricultural production in the nation is affected by pest-infected plants and crops. In order to find and detect diseases, farmers or other professionals typically monitor the plants closely. But typically, this process is expensive, time-consuming, and inaccurate. One method of identifying plant diseases is to search for a spot on the leaves of the affected plant. The purpose of this study is to develop a disease recognition model that allows for the classification of leaf images. Convolution neural networks (CNNs) are being used in image processing to identify plant diseases. The artificial neural network type known as a convolutional neural network (CNN) is designed to analyze pixel input and is utilized in image recognition.

Keywords: Machine learning, Convolutional Neural Network (CNN), Crop disease, Cotton disease, Image processing, Agricultural technology.

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Chapter 47

THE ULTIMATE BATTLE: A COMPARISON OF TWO BATTLE ROYALE GAMES

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Abstract

This comparison analyzes the differences between PUBG and Free Fire, two popular battle royale games. Key aspects compared include:

Gameplay style
Graphics and performance
Game modes and customization
Monetization models

The study highlights the unique features of each game, helping players choose the best fit for their gaming style**.**

Keywords: Battle royale games, PUBG, Free Fire, Gameplay analysis, Monetization models, Game performance, Graphics comparison.

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Chapter 48

ECG AND HEART RHYTHM APPS

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Abstract

The Apple Watch ECG and Cardiogram offer user-friendly ECG monitoring solutions. Apple Watch ECG provides a comprehensive single-lead ECG, while Cardiogram's DeepHeart algorithm offers advanced analytics and insights, with cross-platform compatibility for both Android and iOS users.

Keywords: ECG monitoring, Apple Watch ECG, Cardiogram app, DeepHeart algorithm, Heart rhythm analysis, Wearable health technology, Cardiac health tracking.

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Chapter 49

FUTURE OF AI IN SUPPLY CHAIN MANAGEMENT

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Abstract

This paper aims to identify the contributions of artificial intelligence (AI) to supply chain management (SCM) by conducting a systematic review of existing literature. The study seeks to address the current scientific gap in AI applications within SCM, identifying both current and potential AI techniques that can improve the academic understanding and practical implementation of SCM. Additionally, it highlights areas where further scientific research is needed. The future of AI in SCM holds the potential to transform how businesses plan, execute, and optimize their operations, with technologies such as machine learning, natural language processing, and robotic process automation already improving efficiency by predicting demand, automating routine tasks, and enhancing decision-making. Looking ahead, AI will enable more advanced predictive analytics, real-time data processing, and autonomous operations, contributing to more resilient, agile, and sustainable supply chains. As AI evolves, it will play a key role in reshaping supply chain strategies, driving innovation in logistics, inventory management, and customer experience, while creating a more adaptive and future-proof supply chain ecosystem.

Keywords: Artificial Intelligence, Supply Chain Management, Systematic Literature Review

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Chapter 50

AI AND FINTECH: CRAFTING THE FUTURE OF GLOBAL BUSINESS THE FUTURE OF PAYMENT AND DIGITAL TRANSACTIONS

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Abstract

The future of payments and digital transactions is expected to be dominated by seamless, secure, and globally accessible digital solutions, driven by technologies like mobile wallets, real-time payments, blockchain, and biometric authentication. These advancements enable businesses to craft global strategies focused on user experience, cross-border capabilities, and integration with emerging payment methods like Buy Now, Pay Later (BNPL) to cater to a diverse consumer base. The aim of digital transactions is to largely replace paper transactions with electronic methods, creating a more convenient, secure, and efficient way to exchange money. The transition towards a cashless society facilitates fast, accessible, and traceable transactions across various platforms, including mobile devices, increasing financial inclusion and reducing reliance on physical cash. The widespread adoption of digital payments continues to accelerate due to technological advancements, consumer convenience, and financial accessibility.

Keywords: Digital Transactions, Payments, Cashless Society, Electronic Methods, Contactless Payments, Technological Advancements, Consumer Convenience

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Chapter 51

THE ROLE OF ARTIFICIAL INTELLIGENCE IN TAX ADMINISTRATION

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Abstract

Artificial Intelligence (AI) is reshaping tax administration by improving efficiency, accuracy, and compliance. AI-powered automation streamlines tax processing, reduces errors, and enhances taxpayer interactions through chatbots and predictive analytics. Machine learning algorithms play a crucial role in fraud detection, optimizing tax collection, and ensuring compliance by analyzing large datasets. Additionally, AI provides valuable insights for policy formulation and enforcement, enabling data-driven decision-making for tax authorities. However, AI adoption in tax administration faces challenges, including data privacy concerns, regulatory constraints, high implementation costs, and resistance to change. Addressing these challenges requires robust cybersecurity measures, updated legal frameworks, investments in AI infrastructure, and workforce training. With proper implementation, AI has the potential to transform tax administration into a more efficient, transparent, and data-driven system, benefiting both taxpayers and governments.

Keywords: Artificial Intelligence (AI), Tax Administration, Compliance, Data Privacy, Security

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Chapter 52

AI INVOLVEMENT IN EMPLOYMENT OPPORTUNITIES

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Abstract

Artificial Intelligence (AI) significantly alters the employment landscape, presenting a dual impact. Automation threatens job displacement, particularly in routine tasks, while simultaneously generating new roles in AI-related fields. Existing jobs are also transforming, requiring human-AI collaboration and higher-level skills. This shift necessitates workforce adaptation through reskilling and upskilling initiatives. The overall labor market faces changes in skill demands, wages, and potential economic inequality. Ethical considerations, including algorithmic bias, demand attention. Navigating this transition requires proactive measures from governments, businesses, and educational institutions to ensure a fair and equitable AI-driven future of work.

Keywords: Artificial Intelligence (AI), Employment Landscape, Automation, Job Displacement, Workforce Transformation

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Chapter 53

ANALYSIS ON: THE SCAM BEHIND INSURANCE AFTER THE RISE OF AI

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Abstract

The integration of Artificial Intelligence (AI) into the insurance industry has revolutionized operations, enhancing efficiency in risk assessment, fraud detection, and customer service. However, this technological advancement has also introduced new challenges, particularly concerning ethical practices and potential scams. In the Indian context, the rapid adoption of AI in insurance has led to issues such as biased risk assessments, unjust claim denials, data privacy breaches, and opaque premium pricing models. This paper delves into these emerging concerns, analyzing real-world cases, regulatory challenges, and ethical implications. The objective is to underscore the necessity for robust regulatory frameworks introduced by AI in the Indian insurance sector. This paper explores the hidden scams and manipulations within the insurance sector post-AI adoption.

Keywords: Artificial Intelligence (AI), Insurance Industry, AI Integration, Operational Efficiency, Risk Assessment

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Chapter 54

FINTECH: A LEVEL OF AWARENESS AND PERCEPTION OF CRYPTOCURRENCY AMONG THE PROFESSIONALS WITH SPECIAL REFERENCE IN MADURAI CITY

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Abstract

The Paper's recognition of progressive technological advancement and its associated online application gave rise cryptocurrency. Most of the countries like USA, Canada, Australia, Russia have accepted cryptocurrency as a legal aspects. The main objective of this paper is to evaluate the awareness and perception level of cryptocurrency among the professionals, to analyze the factors that affect investors to invest, know about the different types of bit coins and to determine the future of cryptocurrency perceptions among the professionals in Madurai city. This study also suggest that the most appropriate data collection technique for this conceptual work is primary data collection through questionnaire from 120 sample respondents. The result of this study can also provide vital input for investors to better understand cryptocurrency awareness among the professionals but hesitate to invest. This study tries to discover the cryptocurrency awareness and their degree of trustiness in this currency.

Keywords: Cryptocurrency, Awareness, Perception, Investment Behavior

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Chapter 55

ANALYSIS OF BETA VALUE FOR THE TOP TEN PHARMACEUTICAL COMPANIES IN STOCK MARKET 2023

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Abstract

The beta of a business shows how changes in the market as a whole affect the value of its stock market. The slope coefficient is obtained using regression analysis, which compares the market return with the stock return. The study's goal is to ascertain the systemic risk associated with the shares of the preferred pharmaceutical businesses. Risk affects the market as a whole; it is common to read in the news that the stock market is in a bull market while conservative analysts are praising it. Consequently, the market is either trending towards improved economic circumstances or the opposite is true. The beta of a business indicates how changes in the overall market affect the value of its equity market. Regression analysis determines the slope coefficient by comparing the stock return to the market return. The study's goal is to ascertain the systemic risk associated with the shares of the preferred pharmaceutical businesses. The news frequently announces that the stock market is in a bull market while the bearish are welcoming it, illustrating how risk affects the whole market. This

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implies that either the market is moving towards improved economic conditions or the converse is true. Because having a solid understanding of risk enables investors to create portfolio objectives that reduce risk, they take risk variables into account. The current study's goal is to ascertain the degree of risk connected to the chosen stocks. This information would undoubtedly be useful to investors when they were making financial decisions.

Keywords: Beta Value, Pharmaceutical Companies, Systematic Risk, Stock Market, Regression Analysis

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Chapter 56

THE CRUCIAL ROLE OF ARTIFICIAL INTELLIGENCE IN MODERN BANKING SERVICES

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Abstract

"It has become strikingly evident that technology has surpassed our humanity," stated the renowned physicist, Albert Einstein. In today's rapidly evolving world, technology serves as the driving force behind economic growth, revolutionizing both manufacturing and service sectors. By addressing inefficiencies and streamlining processes, technological advancements have become essential for industries to thrive. The banking sector, a cornerstone of global trade and commerce, is no exception. The integration of technology has transformed banking operations, setting new standards of efficiency and accessibility. Modern banking services, empowered by technological innovation, fuel economic activity and contribute to the expansion of industrial domains. Banks worldwide are undergoing significant technological advancements, aligning themselves with international standards to enhance service delivery. Among the most groundbreaking technological adoptions in banking is Artificial Intelligence (AI). Just as AI is reshaping various industries, banks are leveraging this transformative technology to enhance operations, improve customer experiences, and ensure security. The use of AI-driven solutions is becoming fundamental in streamlining banking services, making them more personalized, efficient, and customer-centric. The rapid digitalization of banking has introduced a variety of services, including ATMs, online banking, mobile banking, and telephone banking. The proliferation of plastic cards catering to the retail sector has witnessed exponential growth, while core banking solutions have made "anytime, anywhere" banking a reality. With the evolution of banking services, customers now enjoy seamless access to financial products, delivered efficiently and cost-effectively through high-tech solutions. In this era of scientific and technological progress, innovations in banking are not just enhancing financial operations but also meeting the everyday needs of individuals. This paper provides a comprehensive exploration of the technological advancements in the banking sector, highlighting their role in driving sustainable development.

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Keywords: Banking Services, Online Banking, AI, Mobile Banking, ATMs, Digital Transactions

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Chapter 57

THE EFFECT OF HOUSING LOAN BURDEN ON THE QUALITY OF LIFE OF MIDDLE-CLASS FAMILIES IN HYDERABAD, TELANGANA STATE: A MIXED-METHODS APPROACH

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Abstract

The rising cost of homeownership has placed a significant financial strain on middle-class families in Hyderabad, Telangana, potentially affecting their overall well-being. This study examines the impact of housing loan burden on the quality of life of middle-class households, focusing on financial stability, mental well-being, and social relationships. Employing a mixed-methods approach, the research integrates primary survey data from 300 middle-class families with in-depth interviews of 30 participants. The quantitative data were analyzed using descriptive and inferential statistical techniques, while qualitative insights were derived through thematic analysis. Findings indicate that excessive housing loan commitments contribute to financial stress, reduced discretionary income, and increased psychological distress, leading to diminished life satisfaction. The study underscores the necessity for policymakers and financial institutions to implement measures that mitigate loan-related financial strain, such as improved loan structuring and enhanced financial literacy programs. Additionally, the research highlights the importance of proactive financial planning to ensure sustainable homeownership without compromising quality of life.

Keywords: Housing Loans, Financial Burden, Quality of Life, Mental Well-being, Financial Stability

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Chapter 58

UNLOCKING THE FUTURE OF AI IN THE FINANCIAL SECTOR

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Abstract

Financial Sector plays inevitable role in the growth and development of an economy. It is the Sector which mobilized the saving and channelizes it into a productive areas. It is the backbone of economy. It is the Sector that caters the financial need of individuals, companies, government departments and institutions. Artificial Intelligence is a technique that minimizes human error and facilitates efficient utilization of resources. Now a day's AI become the crucial part in every aspect of human life. Hence, In the present era AI is transforming financial sector with various techniques like Machine Learning, Natural Language Processing (NLP), Algorithmic trading, and robotics etc. In the present research paper, researcher aims to acknowledge different AI techniques used in financial sectors. It also focuses on unlocking the opportunities of AI in Financial Sector and understanding the challenges in nearest future.

Keywords: AI, Financial Sector, Machine Learning, Algorithmic Trading, NLP

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Chapter 59

ROLE OF AI IN CYBER SECURITY OF THE FINANCIAL SECTOR

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Abstract

The financial sector is one of the most critical infrastructures in the global economy, handling vast amounts of sensitive data and transactions daily. With the increasing sophistication of cyber threats, traditional cyber security measures are no longer sufficient to protect financial institutions. Artificial Intelligence (AI) has emerged as a powerful tool to enhance cyber security in the financial sector. This paper explores the role of AI in cyber security, focusing on its applications, benefits, challenges, and future prospects in the financial industry. The paper also provides a comprehensive list of references for further reading.

Keywords: AI, Cybersecurity, Financial Institutions, Fraud Detection, Risk Management

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Chapter 60

AI: EMPOWERING CHANGE IN WOMEN-LED BUSINESSES – WITH SPECIAL REFERENCE TO MADURAI DISTRICT

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Abstract

Empowering Women Entrepreneurs through AI: A Study on the Transformative Impact of Artificial Intelligence on Women-Led Businesses in Madurai District, Tamil Nadu. As AI technology progresses, its assimilation into business workflows has garnered widespread interest for improving competence, fostering growth prospects and tackling obstacles conventionally faced by women entrepreneurs. The paper delves into how AI is revolutionizing the entrepreneurial sector especially women-led businesses, focusing on its effects on capital access, market insights, business management, and gender inclusivity. By exploring the real market and analyzing some case studies and industry reports, this paper underscores the essential role of AI in supporting economic and technology empowerment and sustainable growth within women-led businesses.

Keywords: Women Entrepreneurs, AI, Economic Empowerment, Business Growth

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Chapter 61

FROM PAYMENTS TO PREDICTIONS: FINTECH AND AI IN NEXT-GEN LOGISTICS

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Abstract

This paper explores the role of Fintech and Artificial intelligence in future of logistics. As logistics is a process of transportation, warehousing, and distribution channels from a products orgin to its end consumer. So logistics is a important thing in this world. From ancient time to future. Logistics is a key thing beyond a products orgin to it reach to its end consumer. So in future of logistics more technologies will be adapted into it. Such as there are two key technologies such as Artificial intelligence and Fintech which going play a crucial role in the flow of future logistics. AI is used to optimizes transport routes, reduces costs, enhances ETA predictions, and identifies disruptions. AI-powered chatbots streamline customer service, while analytics ensure compliance with labour and sustainability standards. By analysing traffic, weather, and supply chain risks, AI minimizes delays, lowers carbon emissions, and improves inventory management. Early adopters see 15% lower logistics costs and 35% better inventory efficiency. With 97% of manufacturing CEOs planning AI integration, its role in India's logistics sector is set to expand, driving efficiency and innovation. Also, Fintech is going to play important role in managing finance using technology. Now a days the Fintech plays a crucial role in many areas such as UPI, QR codes, mobile payments, and FASTAG streamline payments, reducing delays and errors. A key example is Tamil Nadu's SINGARA Chennai Card, which simplifies metro and bus ticketing with prepaid tap-and-go payments. Similar fintech solutions enhance online grocery shopping and logistics payments. By improving security, digital invoicing, and transaction efficiency, fintech ensures faster, more transparent, and cost-effective financial operations, strengthening modern supply chain management. So this paper explores the role of Fintech and Artificial intelligence in the next generation logistics.

Keywords: Logistics, AI, Fintech, Supply Chain, Transportation Optimization

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Chapter 62

FINTECH AND REGULATORY ARBITRAGE

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Abstract

Fintech is one of the most rapidly growing industries in the world. The majority of people classify them as “startups, but Fintech is well beyond that. It's one of the companies which are scrutinized hardest and have the most controversy surrounding them, yet still manage to outperform the competitors effortlessly. This merger is transformational for the economy as it brings forth innovation on an unprecedented level. It enables the company to maximize their output while minimizing their expenses; simply put, they maximize profit.

Most people believe that “innovations” in finance or technology work primarily on enhancing the existing tools, but rather they focus on creating something entirely different from scratch and stuffing it with new tools which the people can perceive as advanced and innovative. These methods work on a fundamental level as they use innovation for marketing purposes. They don’t build a better mouse trap instead they put a bigger box around the mouse and claim it’s a solution. There are few who try to innovate in a sustainable matter and most of them end up pushing out the new tool without thinking from where the new resource is derived.

Modern society is the puppet controlled by shadows as they have relinquished control to those few elites. These “puppeteers” have rewritten the reasoning and claimed the “golden era” has arrived with astonishing innovations ready to be presented, all while keeping themselves hidden. It's is a new world with magnificent innovation which will keep shocking, yet only few know what the motives behind it is. "To tackle these complications, there has to be a middle ground between swift innovation and order."

Keywords: Fintech, Regulatory Arbitrage, AI, Financial Products, Compliance

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Chapter 63

AI-DRIVEN TRANSFORMATION IN NBFCS: ENHANCING OPERATIONAL EFFICIENCY THROUGH DIGITAL CONVERGENCE

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Abstract

The integration of AI into NBFC operations is revolutionizing credit management, risk assessment, and fraud detection. AI-driven technologies, including machine learning (ML), natural language processing (NLP), robotic process automation (RPA), and predictive analytics, are transforming decision-making processes. A report by PwC highlights that AI models improve credit scoring accuracy by 30% compared to traditional methods, demonstrating their potential in financial services. This paper explores AI's convergence with NBFC operations, emphasizing its impact on credit risk assessment, fraud prevention, and regulatory compliance. AI-driven credit risk tools analyze large, complex datasets—incorporating transaction history, behavioral patterns, and digital footprints—to enhance borrower creditworthiness predictions. Additionally, AI-integrated blockchain solutions are improving transaction transparency and reducing financial risks. While AI-driven technologies offer immense potential for optimizing NBFC operations, their implementation must address ethical considerations and regulatory compliance. This study provides a comprehensive analysis of AI's role in reshaping NBFCs, highlighting both

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opportunities and challenges, while advocating for a balanced approach between innovation and governance.

Keywords: Non-banking financial corporations (NBFCs), AI-driven financial services, operations, risks.

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Chapter 64

THE IMAGE OF AI USAGE AMONG STUDENTS: AN ANALYSIS OF PERCEPTIONS, ATTITUDES, AND IMPLICATIONS

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Abstract

Artificial intelligence (AI) is rapidly permeating various aspects of modern life, and its impact is particularly pronounced in education. This paper explores the intricate image of AI usage among students, analyzing their perceptions, attitudes, and anticipated implications. Through a synthesis of existing literature and a framework for understanding student interactions with AI tools, we examine factors influencing the adoption and acceptance of AI, including perceived benefits, ethical concerns, and the potential for both enhancing and hindering learning. This analysis aims to provide valuable insights for educators, policymakers, and AI developers seeking to effectively integrate AI into the educational landscape and ensure its responsible and beneficial use.

Keywords: Artificial Intelligence (AI), education, student perceptions, AI adoption, learning enhancement, ethical concerns, AI in education, student interactions, policymakers, educators.

THE AI ERA: TRANSFORMING HUMAN CIVILIZATION

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Abstract

Artificial Intelligence (AI) is revolutionizing industries worldwide, marking the start of a technological transformation. While predicting AI's exact state in 2050 is difficult, current trends suggest significant advancements. AI is expected to disrupt the job market, replacing certain human roles with more efficient and cost-effective automation, potentially leading to unemployment and economic instability. Employers, employees, and students must adapt to these changes by upskilling and reshaping career paths. As robots differ from humans in creativity and decision-making, understanding these distinctions is essential as AI continues to evolve. Governments must focus on strategies to help the workforce navigate this transition. This presentation examines these impacts and provides insights into how organizations and individuals can adapt to an AI-driven environment.

Keywords: Artificial Intelligence (AI), technology, human workforce, employment, skill enhancement.

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Chapter 66

FINTECH AND AI IN REPAYMENT FOR LOANS

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Abstract

The combination of fintech and artificial intelligence (AI) has revolutionized the repayment system, making online loan repayment smooth and efficient. This article discusses the operation of online repayment systems, emphasizing the contribution of fintech and AI in making automated loan repayments possible. Borrowers are now able to view loan information and repayment schedules through a common link, courtesy of digital platforms, avoiding the necessity of manual explanations. Our main study, conducted using a survey of 35+ respondents, demonstrates the widespread usage of online repayment systems among them. The analysis of the study identifies the advantages, disadvantages, and future direction of fintech-based repayment systems, giving us insights into their potential to make financial inclusion stronger and loan repayments more streamlined.

Keywords: Financial Technology (FinTech), Artificial Intelligence (AI), online repayment behavior, digital transformation, repayment system.

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Chapter 67

AI-ENHANCED LEADERSHIP: INVESTIGATING THE EFFECTS OF ARTIFICIAL INTELLIGENCE ON LEADERSHIP PERFORMANCE AND ORGANIZATIONAL OUTCOMES

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Abstract

As Artificial Intelligence (AI) becomes increasingly integral to organizational leadership, this study investigates the transformative impact of AI on leadership roles, drawing on case studies from innovative companies like Walmart, Ford, and Google. This study argues that effective leadership in the AI era demands a symbiotic relationship between humans and machines, where AI handles complex analytical tasks. In contrast, human leaders provide emotional intelligence, empathy, and critical thinking to drive informed decision-making. To address the current literature gap, this study investigates the effects of AI application on innovation success in R&D departments with some of the case studies of the industry called NVIDIA, focusing on the interplay between leadership, organizational dynamics, and innovation outcomes. This research underscores the importance of gathering further empirical evidence on AI adoption rates, leadership evaluation metrics, and predictive analytics to inform strategic decision-making. This paper serves as a crucial guide for leaders and organizations leveraging AI to enhance their leadership capabilities.

Keywords: AI-powered leadership, organizational transformation and innovation, decision-making analytics, AI ethics and governance, emotional intelligence vs AI, R&D management and AI.

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Chapter 68

IMPROVING HEART DISEASE RISK ASSESSMENT WITH GRAPH-BASED ENSEMBLE LEARNING

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Abstract

Heart disease remains one of the leading causes of death worldwide, making early detection critical for improving patient outcomes. This paper presents a hybrid machine learning approach combining Graph Neural Networks (GNN) and XGBoost to predict heart disease with greater accuracy and interpretability. We preprocess the Cleveland Heart Disease dataset by handling missing values, balancing classes using SMOTE, and normalizing features for consistency. XGBoost is employed to identify the most influential predictors, while GNN models the complex relationships between patients based on feature similarities. Our experiments demonstrate a high accuracy of 91.98%, highlighting the effectiveness of combining feature selection and deep learning in medical diagnostics.

Keywords: Heart Disease, Machine Learning, XGBoost, Graph Neural Networks, SMOTE, Predictive Analytics, Deep Learning, Medical Diagnosis

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Chapter 69

COMPUTER VISION FACE-OFF: OPENCV VS IMAGEAI

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Abstract

OpenCV and ImageAI are two leading computer vision libraries, each serving distinct purposes. While OpenCV boasts an extensive array of functionalities for image and video manipulation, feature extraction, and object identification, ImageAI specializes in streamlined, deep learning-driven image analysis and object detection. This contrast makes OpenCV ideal for intricate applications and ImageAI suitable for developers seeking simplicity.

Keywords: Computer Vision, OpenCV, ImageAI, Deep Learning, Object Detection, Feature Extraction

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Chapter 70

A SIDE-BY-SIDE COMPARISON OF TWO AI GIANTS

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Abstract

This study compares DeepSeek, a specialized search engine, with ChatGPT, a conversational AI model. DeepSeek excels in providing precise answers, while ChatGPT demonstrates exceptional conversational capabilities. The analysis reveals distinct strengths and limitations, enabling informed decisions about AI-powered knowledge retrieval.

Keywords: Artificial Intelligence, ChatGPT, DeepSeek, AI Comparison, Conversational AI, Search Engine Efficiency

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Chapter 71

TRANSFORMING COMMERCE WITH AI

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Abstract

Artificial Intelligence (AI) is revolutionizing commerce by enhancing customer experiences, optimizing operations, and driving data-driven decision-making. This transformation spans various aspects of retail and e-commerce, including personalized recommendations, demand forecasting, automated customer service, and fraud detection. AI-powered chatbots and virtual assistants improve customer engagement, while advanced analytics and machine learning models help businesses optimize supply chains and pricing strategies. Additionally, AI-driven automation reduces operational costs and enhances efficiency across industries. As AI continues to evolve, its integration into commerce will create more intelligent, efficient, and customer-centric business ecosystems. However, ethical considerations and data privacy challenges must be addressed to ensure responsible AI deployment. This paper explores the key applications, benefits, and challenges of AI in commerce, highlighting its potential to reshape the future of business.

Keywords: Artificial Intelligence (AI), commerce, customer experience, data-driven decision-making, retail, e-commerce, personalized recommendations, demand forecasting, automated customer service, fraud detection, AI-powered chatbots

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Chapter 72

ARTIFICIAL INTELLIGENCE IN E-COMMERCE

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Abstract

Day by day, artificial intelligence is becoming increasingly popular, and the main aim of companies in today's e-commerce world is to influence customer behavior in favor of certain brands and products. The paper focuses on the impact of artificial intelligence in e-commerce, describing the essence of e-commerce, artificial intelligence, and their benefits. The e-commerce industry has seen a high degree of digitization and automation simultaneously, allowing the industry to increase productivity, performance, and persistence. On a micro level, leading companies such as Amazon, Walmart, Flipkart (Walmart-Flipkart), and eBay exhibit the highest rate of AI adoption.

Keywords: Artificial Intelligence (AI), e-commerce, customer behavior, brand influence, AI impact, digital transformation, automation, AI in retail, personalized recommendations, AI-driven marketing, data analytics, machine learning, predictive analytics, customer engagement

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Chapter 73

AI-POWERED PUBERTY AWARENESS: A NEW PERSPECTIVE FOR EARLY ADOLESCENTS

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Abstract

Puberty is the transitional phase from childhood to adulthood. Early adolescents aged 10-14 years experience significant physical and emotional changes. Therefore, there is an increased need for the right education and awareness. In an era of technology, AI-based educational methods can be highly effective. This study explores the impact of AI-based chatbots (AI educators) versus human-led sessions (Human educators) in schools. AI chatbots were specifically designed to provide puberty awareness in a structured and respectful manner. A quantitative approach using a random sampling method was employed, selecting 89 students from grades 5-7. The results indicate that AI educators are more effective than human educators in delivering puberty-related education. However, no significant difference was found in comfort levels between both methods.

Keywords: Puberty, transitional phase, early adolescence, physical changes, emotional changes, education, awareness, technology, AI in education, AI chatbot, AI educator, human educator, conventional methods, digital learning, educational technology, puberty awareness

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Chapter 74

A STUDY ON BUYING AND SELLING THROUGH ONLINE

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Abstract

Online buying and selling have revolutionized commerce by providing convenience, a wider product selection, and secure transactions through e-commerce platforms and mobile apps. While these platforms offer significant benefits, challenges like cybersecurity threats, fraud, and logistical issues remain. To ensure a safe and efficient digital marketplace, businesses and consumers must adopt strategies that enhance security, trust, and user experience.

Keywords: E-commerce platforms, mobile apps, cybersecurity threats, online fraud, logistical challenges, digital security, consumer trust, user experience, secure payment gateways

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Chapter 75

PATENT ON EMERGING TECHNOLOGIES: INDIA'S GROWTH AND FUTURE PROSPECT

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Abstract

India has been rapidly growing in fields like Artificial Intelligence (AI), Blockchain, Biotechnology, Clean Energy, and Quantum Computing. As these technologies advance, patents have become crucial in protecting innovations and attracting investments. This paper examines the role of patents in India's technological growth, challenges faced by innovators, and government support for emerging technologies. Understanding current trends and barriers in the patent system can help India become a global leader in innovation.

Keywords: Intellectual property, patent protection, investment, emerging technologies, government initiatives, patent system, challenges for innovators, research and development (R&D), technology commercialization, patent trends, regulatory framework, global competitiveness

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Chapter 76

REVOLUTIONIZING BANKING: THE TRANSFORMATIVE IMPACT OF FINTECH

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Abstract

The rapid evolution of financial technology (Fintech) is reshaping the banking industry, driving innovation, efficiency, and financial inclusion. This paper explores how fintech is revolutionizing traditional banking by leveraging AI, blockchain, big data, and mobile banking solutions. While fintech offers significant opportunities, challenges such as cybersecurity risks, data privacy concerns, and financial stability must be addressed to ensure a seamless and secure financial ecosystem.

Keywords: Financial technology (Fintech), banking industry, innovation, efficiency, financial inclusion, artificial intelligence (AI), blockchain, big data, mobile banking, digital banks, fintech startups, traditional banking, financial institutions, accessibility, cost-effectiveness

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Chapter 77

UNVEILING INSURANCE SCAMS IN THE AGE OF AI: RISKS AND ETHICAL CHALLENGES

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Abstract

The insurance industry, traditionally vulnerable to fraudulent activities, faces a new wave of challenges with the proliferation of Artificial Intelligence (AI). While AI offers immense potential for fraud detection and prevention, it also empowers fraudsters with sophisticated tools to generate more convincing and scalable scams. This paper delves into the risks associated with AI-enabled insurance fraud, examining the ethical dilemmas that arise in its detection, prevention, and prosecution. We explore specific examples of AI applications in both perpetrating and combating insurance fraud, highlighting the need for a balanced approach that leverages AI's capabilities while remaining mindful of privacy, fairness, and accountability. Finally, we propose a framework for ethical AI implementation in the insurance sector to mitigate the risks and foster trust in the system.

Keywords: Insurance industry, fraud detection, fraud prevention, Artificial Intelligence (AI), AI-enabled fraud, ethical dilemmas, AI-powered scams, cybersecurity, insurance fraud, risk mitigation, AI applications, ethical AI, data privacy, fairness, accountability, regulatory compliance, machine learning, predictive analytics, deepfake fraud, claim verification, automation, transparency, AI governance, responsible AI use, trust in insurance, digital security, financial protection.

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Chapter 78

THE FUTURE OF WORK: HOW AI IS RESHAPING EMPLOYMENT TRENDS ACROSS INDUSTRIES

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Abstract

Artificial intelligence (AI) is rapidly transforming the global economy, significantly impacting employment trends across industries. This paper explores AI-driven job displacement, the emergence of new AI-oriented roles, and the evolution of existing occupations due to AI augmentation. Through a comprehensive review of literature and industry reports, the paper highlights challenges and opportunities AI presents and emphasizes the necessity for strategic investments in education, workforce training, and policy interventions to create a balanced and equitable future of work.

Keywords: Artificial Intelligence (AI), global economy, employment trends, job displacement, AI-oriented roles, workforce transformation, AI augmentation, industry impact, automation, labor market, skill development, reskilling, upskilling.

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Chapter 79

AI IN BANKING AND FINANCIAL SERVICES

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Abstract

The integration of Artificial Intelligence (AI) into banking and financial services is transforming the industry, enhancing efficiency, improving customer experiences, and enabling more informed decision-making. As financial institutions face increasing competition, regulatory pressures, and evolving customer expectations, AI technologies are becoming essential tools for innovation and growth. AI is defining how banks and financial institutions assess creditworthiness and manage risks, enabling faster, more accurate, and inclusive decision-making. This paper discusses AI's applications, benefits, challenges, and future trends in banking and financial services.

Keywords: Artificial Intelligence (AI), banking, financial services, digital transformation, efficiency, customer experience, decision-making, credit assessment, risk management, financial institutions, AI applications, automation, predictive analytics, machine learning, fraud detection.

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Chapter 80

THE IMPACT OF UPI PAYMENTS AMONG CONSUMERS: A REVOLUTION IN THE INDIAN FINANCIAL LANDSCAPE

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Abstract

Unified Payments Interface (UPI) has profoundly transformed the Indian financial landscape, revolutionizing how consumers transact. This paper explores the impact of UPI on consumer behavior, analyzing its drivers of adoption, benefits for users and businesses, and the challenges it faces. Through an examination of transaction data, user adoption rates, and the evolving digital payments ecosystem, this paper argues that UPI has democratized access to digital payments, fostered financial inclusion, and contributed significantly to the growth of the Indian economy. While challenges such as cybersecurity risks and rural adoption hinder its full potential, UPI remains a pivotal innovation that continues to shape the future of payments in India.

Keywords: Unified Payments Interface (UPI), digital payments, financial landscape, consumer behavior, adoption drivers, transaction data, user adoption rates, digital payments ecosystem, financial inclusion, economic growth, fintech innovation, mobile banking, real-time payments.

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Chapter 81

A STUDY ON CUSTOMER PREFERENCE TOWARDS UPI PAYMENT SOURCES IN MADURAI DISTRICT

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Abstract

The last ten years have brought about a remarkable growth in the usage of mobile phones and the internet in India. Growing internet usage, the prevalence of mobile devices, and government programs like Digital India are all serving as drivers for the expansion of the use of different digital payment methods. Digital payment refers to electronic consumer transactions for goods and services made at the point of sale (POS) using digital banking on a smartphone. India is rapidly becoming more digital, particularly in terms of UPI sources. The Indian government launched UPI (Unified Payments Interface) to bring about the Cashless Economy. This paper explores customer preferences and perceptions of different UPI sources through a systematic questionnaire, with responses collected from 151 individuals in Madurai district.

Keywords: Internet, Mobile Phone, Mobile Application, Banking transaction, UPI, Online payment, Cashless Economy, Digital India.

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Chapter 82

THE FUTURE OF FINTECH FOR ENTREPRENEURS

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Abstract

The financial technology (fintech) sector is rapidly evolving, offering entrepreneurs unprecedented opportunities to innovate, scale, and optimize financial operations. Emerging trends such as blockchain, decentralized finance (DeFi), artificial intelligence, embedded finance, and digital payment solutions are transforming how businesses access capital, manage transactions, and interact with customers. This paper explores the future landscape of fintech, highlighting its impact on entrepreneurial growth, financial inclusion, and competitive advantage in a digital economy.

Keywords: Financial technology (Fintech), entrepreneurship, innovation, blockchain, decentralized finance (DeFi), artificial intelligence (AI), embedded finance, digital payments, financial operations, capital access, transaction management, customer interaction.

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Chapter 83

AI IN ACCOUNTING AND AUDIT

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Abstract

This paper reviews the application of Artificial Intelligence (AI) in accounting and auditing. The integration of AI in these fields enhances efficiency, accuracy, and productivity while also raising concerns about job displacement and regulatory challenges. This study discusses the benefits, challenges, and future implications of AI in accounting and auditing.

Keywords: AI in Accounting, Audit Automation, Machine Learning, Financial Analysis, Industry 4.0, Regulatory Compliance, Digital Transformation.

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Chapter 84

EFFECTIVE DOMINANT REGION-BASED FACE AND GAIT MULTIMODAL RECOGNITION USING MAXIMUM SUM OF HISTOGRAM BINS (MSHB) AND AGGREGATING MEDIAN-LBP AND GSA METHODS

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Abstract

A multimodal biometric system utilizing face and gait cues has mostly focused on recognition using full-face and gait images. The goal of this paper is to recognize face and gait cues by concentrating solely on their dominant region, which contain a greater amount of discriminative information than other regions. To identify the dominant region, the given face and gait images are initially preprocessed and partitioned into six overlapping half regions, namely top, bottom, left, right, vertical center, and horizontal center. Feature selection is then performed using the Maximum Sum of Histogram Bins (MSHB) method to determine the dominant overlapping region after partitioning. The region with the highest sum of histogram bins is considered the dominant region, ensuring that only the most informative features are used. Subsequently, feature extraction is carried out using Median Local Binary Pattern (Median-LBP) and Gabor Scale Average (GSA) methods independently to capture the facial and gait features of the dominant region. These extracted features can then be enhanced by aggregating the Median-LBP and GSA features to improve the robustness of recognition. After feature extraction, dimensionality reduction is applied using the Principal Component Analysis (PCA) → Linear Discriminant Analysis (LDA) pipeline, which helps in reducing computational complexity

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while retaining the most relevant features for further classification. The biometric system's face and gait decisions are obtained using the Euclidean distance measure, which acts as a similarity metric to compare testing and training feature vectors. Finally, decision-level fusion is performed using AND/OR rules, integrating both biometric modalities for final recognition. The effectiveness of the proposed method is validated using the publicly accessible ORL face dataset and the CASIA B gait dataset, with results demonstrating improved classification accuracy and recognition performance, making it suitable for real-world machine learning-based biometric applications.

Keywords: Face Recognition, Gait Analysis, Multimodal Biometrics, Feature Selection, Maximum Sum of Histogram Bins (MSHB), Median Local Binary Pattern (Median-LBP), Gabor Scale Average (GSA), Dimensionality Reduction, Decision-Level Fusion, Machine Learning.

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Chapter 85

FROM TRAINING TO RETURNS: HR ACCOUNTING FOR OPTIMIZING WORKFORCE INVESTMENT

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Abstract

In today's fiercely competitive business environment, the paramount importance of employee training and development in elevating organizational performance and ensuring sustained success cannot be overstated. However, the ability to effectively measure the return on investment (ROI) of these training initiatives remains a challenge for many organizations. This article delves into the realm of HR accounting strategies as potent tools for quantifying the ROI derived from employee training and development programs. Drawing upon a comprehensive review of relevant literature, this research underscores the critical distinctions between organizational efficiency, defined by the adept utilization of resources, and organizational effectiveness, which is characterized by the fulfillment of goals and objectives. This foundational understanding forms the backdrop against which the significance of HR accounting strategies in bolstering training and development ROI is explored. To achieve this, three core objectives are outlined: the development of HR accounting methodologies for quantifying

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training and development ROI, an examination of the influential factors shaping the efficacy of HR accounting strategies, and the proposal of pragmatic recommendations and best practices to fortify the training and development ROI measurement process within organizations. The research employs robust methodologies, including data collection through questionnaires and interviews from a sample of 100 participants chosen via simple random sampling. Three hypotheses are tested to ascertain the relationship between the implementation of HR accounting methodologies, factors influencing HR accounting strategies, and the adoption of best practices in the realm of training and development ROI measurement. The findings from these hypotheses are meticulously presented in Tables 1, 2, and 3, highlighting significant relationships between HR accounting strategies, their alignment with organizational objectives, data accuracy, and their impact on decision-making processes. In conclusion, this article serves as a comprehensive guide for organizations striving to enhance their understanding and application of HR accounting strategies to bolster the measurement of training and development ROI. It provides practical suggestions to optimize training investments, improve employee performance, and bolster overall organizational success.

Keywords: Employee Training, Development ROI, HR Accounting Strategies, Organizational Efficiency, Organizational Effectiveness, Data Analysis, Decision-Making, Benchmarking, Post-Training Evaluation, Feedback Incorporation.

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Chapter 86

APPLYING MACHINE LEARNING FOR UNBIASED DECISION-MAKING IN HIRING ALGORITHMS

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Abstract

The use of machine learning (ML) in recruitment processes holds significant promise for streamlining hiring, reducing human error, and improving efficiency. However, the application of ML in hiring has raised concerns regarding algorithmic bias, which can perpetuate existing disparities in the workforce, particularly for underrepresented groups such as women, minorities, and individuals with disabilities. This paper explores how ML can be applied to create unbiased decision-making in hiring algorithms by identifying sources of bias, developing strategies to mitigate them, and ensuring that AI-driven hiring decisions are fair and equitable. We also discuss ethical considerations, challenges, and best practices for implementing inclusive ML hiring models.

Keywords: Machine Learning (ML), Algorithmic Bias, Bias Mitigation, Fairness Metrics, Ethical AI, Recruitment Automation, Diversity and Inclusion, Fair Hiring Practices

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Chapter 87

BANKING FRAUDS IN FINTECH SECTOR

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Abstract

Financial technology also known as fintech is one of the fastest growing technological advancements which in combines two of the most powerful elements "FINANCE" and "TECHNOLOGY". As technological advancements develop, so does the number of cyber-attacks and frauds. Some of the most common types of fraud are phishing, malware, social engineering, identity theft, and DDoS attacks. Fintech offers a technological revolution in the banking sector but comes with consequences such as money laundering, cyber-attacks and more. According to the 2023 identity fraud report, the cases in the fintech sector alone saw a 73% increase from 2021 to 2023. Financial technology plays a major role in the prevention of such fraud and cybercrimes. Implementation of AI-powered fraud detection, multi-factor authentication, and various other methods help in preventing such fraud. One of the major benefits of the collaboration of technology is that it provides users with a real-time tracking facility that updates the user with every transaction. Fintech also helps to uncover the user pattern and indicate the possibilities of risk. In conclusion, robust implementation of financial technology tools and dynamic adoption of technological advancements can help in identifying possible fraud or risks. This allows us to be one step ahead and make the banking sector crime-free.

Keywords: Cybercrimes, Scam, Phishing , Fraudlent ,Malware , Cyber theft

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Chapter 88

SUSTAINABLE WASTE MANAGEMENT IN CHENNAI'S HOSPITALITY INDUSTRY: EVALUATING CONSUMPTION AND PRODUCTION PATTERNS (SDG 12) WITH SMART TECHNOLOGIES

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Abstract

This study assesses the waste management practices and the integration of smart technologies in the selected Chennai's hospitality industry, focusing on alignment with SDG 12. The survey indicates that the demographic profile predominantly is of young professionals with limited experience, indicating a potential for implementation of innovative practices. While on the one side the hospital industry shows strong regulatory compliance and leadership support, and on the other side, the study found that improvements are needed in resource allocation and staff training. The study findings revealed that the integration of smart technologies is advanced but constrained by financial and technical challenges. The study highlights the adoption of innovative solutions like waste-to-energy systems and custom AI technologies, reflecting a proactive approach to sustainability. The study recommendations include enhancing financial strategies and technical training to overcome integration barriers and maximize sustainability benefits.

Keywords: Hospitality industry, waste management, SDG 12, smart technologies, sustainability, financial constraints, staff training, innovation

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ENHANCING SUSTAINABLE ECONOMIC EMPOWERMENT THROUGH EMPLOYEE RETENTION IN THE IT SECTOR

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Abstract

Economic growth and the viability of organizations are hampered by employee turnover. In order to foster innovation and entrepreneurship, this study explores the variables that impact employee turnover intentions in the IT industry. The study was divided into two sections: a profile of Bangalore-based IT companies and an analysis of data from 100 employees using questionnaires and primary sources. The results showed that job security, organizational commitment, work happiness, and organizational culture all significantly correlated with employee turnover. Through innovation and entrepreneurship, the report offered practical suggestions for IT organizations to enhance their retention strategy and promote sustained economic empowerment. In order to promote a more stable and creative workforce and support long-term economic viability, businesses should manage employee turnover.

Keywords: Employee Retention, IT Sector, Sustainable Economic Empowerment, Innovation, Entrepreneurship.

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Chapter 90

AI ADOPTION IN ONLINE FOOD DELIVERY: TRANSFORMING CUSTOMER BEHAVIOUR AND BUSINESS SUSTAINABILITY

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Abstract

Digital transformation in food delivery has rapidly accelerated AI adoption because it generates improved customer experiences along with operation optimization and sustainability benefits. This analysis examines how artificial intelligence technologies, including user-specific recommendation engines together with predictive analysis and AI based chatbots, modify customer actions in e-food purchasing. The research analyses AI's transformative power on customer preferences as well as business efficiency and decision quality improvement by using survey data alongside Swiggy, Zomato, and Uber Eats case studies. The research demonstrates how AI engagement boosts through individualized suggestions while optimizing sustainable delivery routes alongside creating trust through anti-fraud capabilities. The technical implementation of AI triggers essential ethical difficulties because it threatens user privacy, generates biased algorithms, and disrupts employment opportunities. The research presents usable insights about how food delivery businesses should utilize AI technology to produce customer-oriented innovations while deploying responsible artificial intelligence systems. The study actively participates in academic dialogue about artificial intelligence-based factors affecting consumer habits and sustainable business frameworks in online food delivery services.

Keywords: Artificial Intelligence, Online Food Delivery, Consumer Behaviour, AI-Powered Recommendations, Predictive Analytics, Business Sustainability

CONCLUSION

The **National Conference on "AI and FinTech: Crafting the Future of Global Business"**, held on **March 6, 2025**, successfully brought together **academicians, researchers, industry professionals, and students** to explore the ever-evolving landscape of **Artificial Intelligence (AI) and Financial Technology (FinTech)**. The conference served as a **dynamic platform for exchanging knowledge, discussing cutting-edge innovations, and addressing challenges** in the **global business ecosystem**.

The research papers and discussions presented in this **Conference Proceedings** highlight **emerging trends, real-world applications, and transformative strategies** that are shaping the future of AI and FinTech. Through **collaborative efforts**, this conference has contributed to advancing **academic research, industry partnerships, and policy-making** in these crucial domains.

We hope that this publication will serve as a **valuable reference for scholars, professionals, and industry leaders**, inspiring further exploration and implementation of **AI-driven solutions in financial technology and global business strategies**.

We extend our sincere appreciation to all **participants, contributors, and organizers** for making this conference a success. We look forward to **continued research, innovation, and collaboration** in future editions of this event.

Dr. Aamir Junaid Ahmad
Conference Chair
Secretary, CMAOI Association

About CMAOI Association

The CMAOI Association is a distinguished professional body dedicated to promoting educational and research excellence across India. Established with a mission to support the professional growth and development of individuals across various sectors, the association serves as a vital hub for fostering innovation and collaboration in commerce, management, and technology. Through its dynamic platform, CMAOI encourages the exchange of ideas, networking, and cooperation among academic leaders, industry experts, and researchers. The association proudly includes around 350 members, encompassing Heads of Departments from prestigious colleges and universities, alongside experienced professionals from the business world. CMAOI's diverse membership base brings together leaders from multiple disciplines, creating an environment where knowledge sharing and cross-disciplinary collaboration thrive, The association is committed to shaping the future of commerce, management, and technology by leveraging collective expertise and a shared vision for progress.

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