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SYMBIOSIS INSTITUTE OF DIGITAL AND TELECOM MANAGEMENT

[Formerly SYMBIOSIS INSTITUTE OF TELECOM MANAGEMENT]

CONSTITUENT OF SYMBIOSIS INTERNATIONAL (DEEMED UNIVERSITY)

Established under section 3 of the UGC Act, 1956 | Re-accredited by NAAC with 'A' Grade (3.58/4) | Awarded Category - I by UGC

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SYMBIOSIS

Prayukti

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Dr. Sujata Joshi
Professor & Faculty incharge of
Research & Publication, SIDTM

Prayukti, the student journal of SIDTM, aims to motivate the students to do research in the area of Information Communication Technology. Students will be writing research articles in the current areas of ICT and the best articles will be published in this journal. This will help students keep abreast of the current happenings in the area of ICT and also help dissemination of knowledge, information and learning. Students are expected to have an enriching and life-turning experience which will enable them to reach new heights in their professional life. We foster sharpening of skills and enhancement of knowledge base in our students through various extra-curricular, co-curricular and curricular activities through faculty who not only keep themselves at par with the current developments in ICT but also contribute to the expansion of the body of knowledge in their field of expertise. To facilitate this, we have launched Prayukti to enhance domain specific knowledge among members of faculty and among students. With very congenial and professional environment our faculty makes substantial contribution to the academia through quality teaching, publications, seminars, conferences, etc.

PREFACE

Symbiosis Institute of Digital and Telecom Management works towards developing techno-managers by exposing the students to latest technology, enabling them to manage the technological aspects of an organization.

As a part of a telecom business school, that has adapted and catered to the needs of the ever-changing Information and Communication Technology (ICT) industry, it gives us an immense pleasure to release the fourth edition of Prayukti. The success of the magazine lies in the collaborative efforts of the team members, students, and the faculties. The magazine reflects the business aspects of current and upcoming ICT trends through papers written by the students.

Prayukti is an initiative of Symbiosis Institute of Digital and Telecom Management. The name is derived from a Hindi word 'Prayukti', which resonates the aim of the magazine, which is motivation, application and result. The latest trends of ICT industry are researched and are brought upon through insightful papers. This edition comprises of 151 papers. This year the areas of focus are: Tackling the obstacles of IoT implementation in India, OTT distribution and customer behaviour, future of SEO, blockchain regulatory framework in financial industry, Digital Transformation, data-driven marketing, electronic smart systems and drones of tomorrow. On behalf of the journal authors, we would like to take this opportunity to express our gratitude to all the professors for their support and guidance and to the students who have directly or indirectly contributed to the magazine. We would love to hear your suggestions that could help us with the future editions.

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TABLE OF CONTENTS

| Sr. | Title of the Paper | Page |
|------------|--|-------------|
| 1 | Qualitative Analysis of Change in Consumer Behavior Due to Covid-19 in India. | 11 |
| 2 | Use of Data Analytics to Mitigate Risk and Fraud in Cloud-Based Telecom Industry | 11 |
| 3 | Leveraging Digital Twin Technology in the Healthcare Industry – A Machine Learning Based Approach | 12 |
| 4 | The Role of Information Technology in Revolutionizing Marketer's Approach towards Personalized Advertisement | 13 |
| 5 | Adoption of Block Chain Technology in Supply Chain Management | 13 |
| 6 | Digital Transformation and Disruption in the Gaming Industry | 14 |
| 7 | Driving the Electric Vehicle Revolution in India: Case Study of Tata Nexon | 14 |
| 8 | Impact Analysis of Security and Charging Infrastructure on the Adoption of Electric Vehicles | 15 |
| 9 | Price versus Performance Impact Analysis on Adoption of Electric Vehicle in India | 16 |
| 10 | Using Artificial Intelligence in HR Functions for Recruitment: An Overview | 16 |
| 11 | Transformation of Mobility Industry by Advanced Digital Technologies | 17 |
| 12 | Impacts of Digital apps and Robots in Health care and Change in Customer Lifecycle during pandemic like COVID-19 | 17 |
| 13 | Exploration of Innovation Attributes on Intention and Adoption of Virtual Reality (VR) in Entertainment | 18 |
| 14 | Relevance of Cyber Security in 5G Network | 18 |
| 15 | COVID-19 Impact on Global Network performance | 19 |
| 16 | Immersion of AR-VR in to Tourism Industry | 19 |
| 17 | Cyber security in the Quantum Era - A Study of Perceived Risks in Conventional Cryptography and Discussion on Post-Quantum Methods | 20 |
| 18 | Hyper Automation in Transforming Underwriting Operation in Life Insurance Industry | 20 |
| 19 | Smart Warehousing and Its Benefits to the Industries | 21 |
| 20 | How Industrial Analytics Backed by IoT will Transform Manufacturing Industry | 22 |
| 21 | Application of Artificial Intelligence in Cyber Security | 22 |
| 22 | Risk Assessment and Mitigation Techniques of Cyber-Attacks in Emerging Technologies | 23 |
| 23 | Trends in the Growth Pattern of Digital Payment Modes in India after Demonetization | 23 |
| 24 | Digitalization and Its Impact on Indian Economy | 24 |
| 25 | The Impact of Social Networking Websites NN College Students Academic Performance | 25 |

| | | |
|----|--|----|
| 26 | Comparison of Select Digital Maturity Models for Digital Transformation Dynamics | 25 |
| 27 | Marketing Effectiveness via Persuasive Advertising in the Digital Age | 26 |
| 28 | Intelligent Automation - Uses, Benefits, and Impact | 26 |
| 29 | A Study on the Acceptability of Green Products in Pune Region | 27 |
| 30 | Emerging Revenue Models Adopting Block chain Technology by Indian Telecom Companies - A Taxonomy | 27 |
| 31 | Digital Infrastructure Management-Challenges and Opportunities in the Post Covid Era | 28 |
| 32 | What Makes Users Invest in Gaming Application of Smartphones? | 28 |
| 33 | Augmented Reality: Study of Implementation, Implications and Future Development in Education, Retail, Medical and Manufacturing Sectors | 29 |
| 34 | Evolving Robotic Process Automation (RPA) & Artificial Intelligence (Ai) in Response to Covid-19 and Its Future | 29 |
| 35 | Use of Artificial Intelligence to Screen COVID-19 Patients | 30 |
| 36 | Leveraging AI for Secure Public Cloud | 31 |
| 37 | Digitization In Fisheries Sector: An Analysis on Technology Expertise of Fisheries Sector's Stakeholders of Vizhinjam International Port and Neighbouring Villages | 32 |
| 38 | Cyber Security Trend Analysis using Web of Science: A Bibliometric Analysis | 32 |
| 39 | Neo Banking - A Feasibility Study in the Indian Context | 33 |
| 40 | Cyber Risk Mitigation in Cloud Computing Environments Using Block chain Technology | 34 |
| 41 | Enabling Digital Transformation with Cloud Native Architecture | 34 |
| 42 | A Bibliometric Analysis of Telemedicine: Remote Healthcare Delivery Over The Years | 35 |
| 43 | Application of Modern AR/VR Technologies in Brand Promotion | 35 |
| 44 | Fintech in Indian Capital Markets | 36 |
| 45 | Competition in the Indian OTT Industry: Case of Zee5 | 36 |
| 46 | Cyber security in Digital Epoch: Emerging Threats and Modern Defense Techniques | 37 |
| 47 | Role of Augmented Reality to Enhance Consumer Experience: A Bibliometric Study | 37 |
| 48 | Impact of Lockdown on Indian Consumers' Psychological Behaviour and Attitude towards | 38 |
| 49 | Impact of 5G in Healthcare Sector | 39 |
| 50 | Business Intelligence for Reducing NPA in Indian Banking Sector | 39 |
| 51 | IoT Security and Privacy Concerns in Cloud Ecosystem | 40 |
| 52 | Impact of Advanced Digital Technologies on Healthcare Sector | 40 |
| 53 | Leveraging Block chain for Communication Service Providers (CSP) to Combat Fraud and Enhance Revenue | 41 |

| | | |
|----|--|----|
| 54 | IoT Device for Modern Agriculture (Repelling Bird Frequency IOT Device Sound System) | 42 |
| 55 | Future of Marketing – A Research into Integration of CRM, Data and IoT to Provide Exceptional Customer Service Experience as a Method of Marketing | 42 |
| 56 | Impact of Behavioural Biometrics on Mobile Banking System | 43 |
| 57 | Competition in the RPA industry: A Case Study of Blue Prism | 43 |
| 58 | Covid 19 Impacts on Indian Economy and Technology | 44 |
| 59 | Precision Agriculture: Innovation in Agriculture | 44 |
| 60 | 5G-Based Remote Surgery in India: Technological Requirement and Challenges | 45 |
| 61 | Implementation of Block chain Technology in the Agriculture Industry | 45 |
| 62 | Early Impact of Covid-19 on the Indian ICT Industry | 46 |
| 63 | Review of Early Impact of COVID-19 on Indian Agricultural Economy and Disturbances in Food Supply Chains | 47 |
| 64 | Digitally Disrupting the Customer Experience in Retail Industry | 47 |
| 65 | Monetizing Data Points to Increase Profitability for Banks | 48 |
| 66 | A Study on the Impact of Robotic Process Automation on Businesses in Industry 4.0 | 48 |
| 67 | Social Media Influencers and Consumer Purchase Decision with Special Reference to Beauty and Wellness Products: A Study of Millennial's in Pune | 49 |
| 68 | A Study of Artificial Intelligence in Fashion Industry | 49 |
| 69 | A Study on Consumer Insights for A Govt. Affiliated Ed-Tech Platform In India, Post Covid-19 Pandemic. | 50 |
| 70 | The Analysis of Impact of Covid-19 on Retail Consumer Behavior and Business Models | 50 |
| 71 | From Big Boxes to Handy Smartphones - A Study of Consumer Perception of Value in OTT Video Streaming Services | 51 |
| 72 | Analysis of the Impact of Reliance Jio Infocomm Ltd on Indian Economy: A Case Study | 52 |
| 73 | A Study of Cybercrimes in India and the Need of Cyber Security in Indian Market Post Pandemic Era | 52 |
| 74 | Online Travel Companies and Consumer Engagement in the Era of Artificial Intelligence | 53 |
| 75 | Dark Analytics - Understanding its Potential, Advantages and Risks | 53 |
| 76 | Block chain Crowdsourcing-Based Cyber security Framework For 5g IoT in Industry 4.0 | 54 |
| 77 | Impact Analysis of Customer Experience and Environmental Sustainability on Adoption of Electric Vehicles | 54 |
| 78 | Covid-19 Pandemic - Cybercrimes vs. Cyber security | 55 |
| 79 | Preference of Mobile Platforms: A Study of iOS vs. Android | 55 |
| 80 | Big Data Driven Change Management: An Outlook during M&As | 56 |
| 81 | Conceptual Framework for Use of Drones in Manufacturing Industry | 56 |

| | | |
|-----|---|----|
| 82 | Market Estimation of Cloud Migration Services and its Security Measures | 57 |
| 83 | Personalization and Privacy in IoT: A Consumer-Business Challenge | 57 |
| 84 | Unbolting The Power of Predictive Analytics in Sales and Operation Planning for Pharmaceutical and FMCG industries | 58 |
| 85 | Implementation and Sentiment Analysis of Artificial Intelligence in Healthcare Industry | 59 |
| 86 | Virtual Network Operators – Enabler for Digital Revolution in Rural India | 59 |
| 87 | Introduction of Augmented Reality and Virtual Reality in the Growing Education Sector: A Review | 60 |
| 88 | Study of the Competition in Indian Telecom Industry: A 20-year period with Airtel as the Case Company | 60 |
| 89 | Competition in Indian Telecom Industry: Case Study Approach with Airtel | 61 |
| 90 | Intelligent Interaction via Chat bots transcending the Current Constructs | 61 |
| 91 | Healthcare Analytics: Scope and Trends | 62 |
| 92 | Assessing and Modelling Digital Risks in Pharmaceutical Industry | 63 |
| 93 | Telecommunication Fraud and Framework to Mitigate it | 63 |
| 94 | Potential of Short Videos in E-commerce in India | 64 |
| 95 | Cyber security – Vulnerability Assessment of Attacks, Challenges and Defense Strategies in Industry 4.0 Ecosystem | 64 |
| 96 | Impact, Capabilities, and Credibility of Video Assistant Referee in Football/ Soccer | 65 |
| 97 | Digital Transformation and Cyber Disruption in the Oil and Gas Industry | 65 |
| 98 | Security Threats and Proposed Containment Solution for Block chain: Assessment Using Cases | 66 |
| 99 | Block chain in The Stock Market: Assessment of Drawbacks in the Trading Process and Proposed Solution for the Trading Process Using Block chain | 66 |
| 100 | Digital India Transformation: Moving India Forward | 67 |
| 101 | Social Media Sentiment Analysis for Monitoring Online Presence of Cosmetic Brands | 67 |
| 102 | Strategic Implementation of Information System (Is) to Create Business Value –A Case Study on Air Asia | 68 |
| 103 | Sentiment Analysis to Evaluate Influencer Marketing: Exploring To Identify the Parameters of Influence | 69 |
| 104 | Using Digital Twin Technology for Performance Evaluation: Simulating Tests Virtually Before Implementing Smart City Projects | 69 |
| 105 | Sentiment Analysis and Opinion Mining: Analysis on E-Commerce and Software Industries | 70 |
| 106 | Digital Natives: The Future Workforce | 70 |
| 107 | Future Contracts: Smart Contracts | 71 |
| 108 | A Study of the Factors Affecting Readiness of Indian Customers to Use Self-Driving Vehicles | 71 |

| | | |
|-----|---|----|
| 109 | Natural Language Processing (NLP) & its Impact across Industries – Unlocking the True Potential of Digital Healthcare (A Case Study Approach) | 72 |
| 110 | Strategies for Work, Workplace and Workforce after Covid-19 | 73 |
| 111 | Changing Consumer Behaviour towards Carbonated Beverages during Covid-19 in India | 73 |
| 112 | Wi-Fi 6, 6e: A Leap to a Paradigm Shift | 74 |
| 113 | Unveiling The Success behind Tesla's Digital Marketing Strategy | 74 |
| 114 | Blockchain Technology: Challenges and Opportunities in the World of Indirect Taxes | 75 |
| 115 | Building a Content Recommendation Framework for Personalizing Streaming Experience Using Sentiment Analysis | 75 |
| 116 | Impact of Cyber-Attacks on Banking Institutions in India: A Study of Safety Mechanisms and Preventive Measures | 76 |
| 117 | Industrial IoT – From Visibility to Efficiency | 76 |
| 118 | IT Service Management Driving Digital Transformation in Telecommunication Industry | 77 |
| 119 | Healthcare Consumer Behaviour: The Impact of Digital Transformation of Healthcare on Consumer | 77 |
| 120 | A Study on the Concept of Bundling and the Impact of Handset Leasing on Telecom Operators | 78 |
| 121 | Electronic Voting Research Papers in Web of Science: A Bibliometric Analysis | 78 |
| 122 | Artificial Intelligence in Cyber Security – A Threat or a Solution | 79 |
| 123 | Fog Computing in Healthcare | 80 |
| 124 | Predictive Analytics in Healthcare | 80 |
| 125 | Cyber security Threat Mitigation in Architectures for Industrial IoT | 81 |
| 126 | Text Mining and Text Analytics of Research Articles | 81 |
| 127 | The Jolting Impact of COVID-19 on the Micro, Small and Medium Enterprises in India | 82 |
| 128 | A Study to Identify the Possibilities of Implementing Robotic Process Automation for the Processing of Loans in Banks | 82 |
| 129 | Analytics Framework for Cyber Defense Using Data from Multiple Sources | 83 |
| 130 | Challenges of Applying AI in Healthcare in India | 84 |
| 131 | The Development of Artificial Intelligence in Health and Medicine: A Bibliometric Analysis | 84 |
| 132 | Cyber Laws and Modern Surveillance; Public Protection or Privacy Violation | 85 |
| 133 | Trend Analysis of Electric Vehicles through Web of Science: A Bibliometric Analysis | 85 |
| 134 | Possible Ways to Overcome the Obstacles of Commercializing the Digital Currency in India: A Bibliometric Analysis | 86 |
| 135 | Post Pandemic Cloud Adoption: A way forward | 87 |
| 136 | SCADA Systems Security in Wireless Sensor Network (WSN) | 87 |

| | | |
|-----|--|----|
| 137 | Impact of Internet of Things on Automobile Sector | 88 |
| 138 | Adoption of Blockchain Technology in Indian Public Distribution System Challenges and Solutions | 88 |
| 139 | Understanding Issues in Cloud Forensics | 89 |
| 140 | A Study on Effect of Proximity Marketing on Consumer Behavior | 89 |
| 141 | Impact of COVID-19 on Sports Industry | 90 |
| 142 | Healthcare Information Privacy: Growing Need for Security Techniques in Healthcare Systems | 91 |
| 143 | Review of Regulations Pertaining to the Allotment E and V bands in India | 91 |
| 144 | IoT Payments | 92 |
| 145 | Study of Competition in Indian Telecom Sector: Case of Vodafone-Idea Limited | 92 |
| 146 | Understanding Consumer Behaviour on B2C Ecommerce Platform | 93 |
| 147 | A Study of Monetizing the Next-Generation Cellular Technology: 5G | 93 |
| 148 | Crime and Criminal Tracking Networks System: Case Study | 94 |
| 149 | Evolution of Embedded Sims, Concept, Benefits, Challenges, Use Cases in IoT and It's Future | 94 |
| 150 | Analyzing the Vital Role of Enterprise Data Lake in the Era of Digital Transformation | 95 |
| 151 | Predictive Analytics to Offer Profitable Anticipatory Shipping for E-commerce Companies | 95 |

1. Qualitative Analysis of Change in Consumer Behavior Due to Covid-19 in India

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This research aims to highlight behavior of consumer during and after Covid-19 in India. The study analyzes the relationship between consumer impulsiveness, income level and purchase behavior. Semi-structured in-depth interviews are conducted amongst different consumers to conceptualize pattern of crisis consumption as a part of qualitative research. The limitation arises from the perishable topic itself, because the dimension of the consumer behavior may very once after pandemic situation is over. The responsible consumer will be more particular about their requirements. Research conducted will help marketers understand the changing consumer mindset and identify business opportunities in the dynamic market. The negative impact caused by the pandemic in 2020 will have a long-lasting impact on the consumer behavior. With reduced income, majority of consumers curbed their impulse purchases and stuck to staples, while others with consistent income, slowly started purchasing non-essential items. They are experiencing a more holistic approach to mental and physical wellbeing. This study contributes a unique perspective in understanding of change in consumer purchase behavior during and after the Covid-19 pandemic by filling the gap between quantified surveys and consumer emotions.

2. Use of Data Analytics to Mitigate Risk and Fraud in Cloud-Based Telecom Industry

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The telecom Industry, just like other industries, has evolved from the traditional practices to updated technology and slowly adopted the cloud platform. This resulted in technologically improved system but at the same time it has also increased the amount of risk and fraud threats. The purpose of this research is to study the use of data analytics and predictive modelling to mitigate the increased fraud and risk in the

telecom sector due to its revolutionization by incorporating cloud technology. This is a conceptual research about the amalgamation of cloud technology with prevalent telecom technologies, and the use of predictive analysis for mitigating resultant risks and frauds. It draws upon research articles and professional websites as secondary data. Despite tremendous technological advancement in the telecom sector due to cloud computing, the security threats have also significantly increased. The use of predictive modelling can help the Telco's be prepared for the imminent risks and mitigate them. On the basis of past data, we can define parameters in the system which can cause an alert towards possible suspicious activity. This can be a step towards preventive fraud management. This study will help telecom companies to use predictive modelling to recognize potential risk areas and fix them before any real losses occur. It helps them recognize the vulnerabilities in the system on the basis of historic data and use the same to alleviate future risk. This research also introduces a model to identify fraud patterns by using regression, to mitigate potential risks.

3. Leveraging Digital Twin Technology in the Healthcare Industry – A Machine Learning Based Approach

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This research deals with the concept of digital twin technology and leveraging the same in the healthcare domain. Digital twin technology is adding value to the healthcare industry by personalizing the diagnosis and therapy selection procedure. Finite Element Analysis (Finite Element Analysis, 2001) is a simulation method used to create a digital replica or a digital instance of the human organs such as heart, kidney, or brain. IoT devices or sensors such as implantable cardioverter defibrillator or heart pacemakers collect the medical data of patients, which is analyzed to create a virtual instance using simulation software. The virtual instance is continuously updated and is used in generating reports for further diagnosis.

4. The Role of Information Technology in Revolutionizing Marketer's Approach towards Personalized Advertisement

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Digital transformation is the key to the success of any business today. Unlike the conventional approach, modern advertising media allows customers to interact with the web at a much more personal and intimate level thereby collecting consumer data - likes, dislikes, interests, and preferences. One of the main reasons for the high effectiveness of personalized online advertising is the use of emerging IT solutions which have been playing a major role in crafting impressive commercials, making it easier for marketers to target users at a very personalized level. The objective of this research is to review and assess the role of Information Technology in delivering highly targeted personalized ads to the consumers by understanding the concept of personalization. Research Methodology: The research is basically qualitative in nature. This field has evolved over a period of time. So, it is an exploratory study. The research is based on an analysis of various research papers and an extensive literature review is used. It is based upon review and analysis of papers to arrive at a framework of adoption of these technologies in personalized advertisement.

5. Adoption of Block Chain Technology in Supply Chain Management

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Supply chain management involves the integration of various stages of arrangements and execution of different processes. It involves the flow of raw materials, goods, information, and storage of goods as well as the movement of finished materials from one point to another. However, as the business grows, the supply chain interconnectivity becomes inefficient. Integration of block chain with supply chain management, resolves and overcome numerous challenges such as record keeping, tracking of products, etc. in organizations. In academic research, very few research studies have focused on the business benefits of block chain technology in management of supply chain. The objective of this research is to gain insight into how the field of supply chain management when integrated with a block chain-enabled platform will provide businesses to gain a competitive edge as well as used to overcome the

arising challenges and problems faced by organizations in supply chain operations. A case study-based procedure has been implemented for this research study. Collected literature such as online-based databases, articles, whitepapers, and website reports has been studied for significance to the topic.

6. Digital Transformation and Disruption in the Gaming Industry

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Digitization has been the most integral part and a driving force of many industries around the world. Digital transformation across the multiple aspects in the business will not only provide exceptional opportunities for value creation and capture the market, but also represents a source of risk. The gaming industry has grown and gained an important position in the lives of the people. It is stepping up to enhance infrastructure and identifying innovative ways to ensure product and service offerings for the new generation. It is based on the transformation of the gaming industry over the years and what changes have technological advancements brought in this sector to enhance the customer experience. Study digital transformation in the gaming industry. This article has implications for the managers in the gaming industry by helping them understand the dynamics of the industry and the technologies that will make the future of gaming even brighter. A bibliometric research method has been adopted, where industry-relevant information from various online databases, whitepapers, used cases and reports has been collected.

7. Driving the Electric Vehicle Revolution in India: Case Study of Tata Nexon

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Over the years, the exploitation and pollution of natural resources have created the need for renewable and environment-friendly products. One such product is electric vehicles which are a replacement for petroleum-based vehicles as they help in reducing pollution and are profitable to consumers. To mark this change multiple Indian

automobile companies are launching electric vehicles and one of them is Tata Nexon by the Tata group. The adoption of innovative and new technology standards coupled with customer trust that Tata Motors commands will provide with an opportunity to enter a new emerging market. Also, the company can work on its elaborate product range with ecofriendly technology. Price rises in the international economy could be an obstacle for Tata motors limited on a few fronts. Steel and aluminum prices rise puts pressure on production cost and also the company exposes itself to the international competition in green technology.

Tata Motors commands will provide with an opportunity to enter a new emerging market. Also, the company can work on its elaborate product range with ecofriendly technology. Price rises in the international economy could be an obstacle for Tata motors limited on a few fronts. Steel and aluminum prices rise puts pressure on production cost and also the company exposes itself to the international competition in green technology.

8. Impact Analysis of Security and Charging Infrastructure on the Adoption of Electric Vehicles

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AIn the Global innovation index report, 2019, India ranked 52 among the 129 nations thus strengthening the nation's standing in terms of technological adoption. Developed countries for long have adopted electric vehicles and India too has initiated this. EVs have proven to be better than fossil-based traditional vehicles in terms of convenience, efficiency in operations, price, and performance. This research article is focused on understanding the consumer perception regarding adoption of EVs across factors like price, performance, ease of availability, security issues, efficiency, charging infrastructure, and user experience. This article focuses on two factors, namely security issues and charging infrastructure and draws an inference as to how important these factors were in the eyes of the respondents. The results showed these two factors contributed to about 68% to the concerns of the Indian consumers.

9. Price versus Performance Impact Analysis on Adoption of Electric Vehicle in India

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India ranks 52nd among 129 nations in the Global Innovation Index signaling the use of technology in the everyday lives of its citizens and adoption of electric vehicles in an indicator. Global warming is an issue in India due to the increased use of vehicles run on conventional fuels. According to an article by BMC (part of Spring Nature) in 2017, around 23 % of the overall air pollution is contributed to vehicular emissions. Countries across the world have adopted policies based on research and significant decisions have been taken to boost the adoption of electric vehicles. This research presents factors analysis of a survey conducted to ascertain the factors that lead to the adoption of electric vehicles in India. The results of our analysis brings out two key factors - Price and Performance are the key factors in the buying decision from the consumer's perspective.

10. Using Artificial Intelligence in HR Functions for Recruitment: An Overview

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Artificial Intelligence (AI) in a more efficient outcomes with using advanced algorithms to produce high quality data at a high computational speed, achieved with intelligence of humans which embedded with in algorithms. These may be applied in various functional areas with complex issues. One such complex task has been explored in this study with inbuilt tasks as recruitment under Human Resources function which are complex arrangement of candidate selection and matching to the required job requirement. This research article is a discussion on the effects and outcome of using AI based technologies and systems on recruitment for parameters needed for mid and front-line management and touches on the expanse needed for talent management with feature requirement of Artificial intelligence.

11. Transformation of Mobility Industry by Advanced Digital Technologies

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WThe world of mobility has always been a vanguard of scientific discovery. Artificial intelligence (AI) has already been used in motor sports, making the car more reliable and advanced. The digital transformation using AI and Machine learning in the automotive industry is fast creating huge monetization opportunities. Autonomous cars, sophisticated self-control, safe, secure and high-performance vehicles, and even flying cars may be the future of mobility. This research article discusses how AI and Robotics will transform the mobility sector. It discusses the use of AI and Machine Learning (ML) in driver less cars. It also studies the convergence of AI and Robotics creating a platform and ecosystems for human robot partnerships making humans free for more critical tasks. The digital technology disruption of the mobile industry is not free from challenges. This article also discusses challenges, possible solutions, and how the transformation can benefit mankind.

12. Impacts of Digital apps and Robots in Healthcare and Change in Customer Lifecycle during pandemic like COVID-19

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In the research article we will discuss how during catastrophic events like Covid-19 digital platforms have played a vital role to shift the nature of businesses and day to day activities of people. We will discuss apps for productivity, fitness and safety and also robots that are being deployed to help doctors with diagnosis etc. In this research paper data is collected through primary and secondary sources by conducting interviews with various people mainly Doctors and business professionals and statements of Corporates were taken into consideration, that how digital platforms bring change in their day to day life and do the coding of the points mentioned by them that contribute the most in bringing the change and match the common factors.

13. Exploration of Innovation Attributes on Intention and Adoption of Virtual Reality (VR) in Entertainment

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Virtual Reality (VR) is an immersive technology that enables a user to experience a real world in a virtually created environment. With this progressive technology, the experience of a user is enhanced in terms of entertainment. This article explores the perception-based study of VR Technology, especially in Entertainment, based on innovation attributes from Roger's Diffusion Model of Innovation Theory along with cost as an additional attribute that will influence the behavioral intention and adoption of the consumer. The five attributes utilized were complexity, compatibility, relative advantage, observability, and trial ability along with cost from which the hypotheses were made. The analysis was done using the reliability tests, and regression by computing the constructs based on the responses. The attributes were studied against behavioral intention whereas cost and behavioral intention were studied against adoption. Except complexity, all other attributes showcased significant relationships with behavioral intention. Also, behavioral intention and cost showcased a significant relationship with the adoption. Although, further studies can be done using more innovation attributes by incorporating individual aspects (features, benefits, applications, and concerns) in the context of VR in entertainment

14. Relevance of Cyber Security in 5G Network

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As the world is moving fast-paced, the telecommunication sector is also under pressure of transforming and launching a new generation of the network to serve the changing needs of subscribers. The introduction of the 5G network will be an entirely new generation of technology having revolutionary characteristics like impressive speeds, fewer latency issues, and increased reliability over previous mobile technologies. As the 5G network is based on the software-defined network, cyber-attack vulnerabilities will be the key issue. The success of this network will be determined by how well the Telecom companies are planning to combat the cyber related Risks by taking care of security challenges introduced by SDN, NFV, and 5G applications.

15. COVID-19 Impact on Global Network performance

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The outbreak of the Covid-19 pandemic has created a deep impact in every sector of our life. The most significant impact of this global pandemic is “global lockdown”. The lockdown has brought many changes in our lifestyle. One of the significant changes is the usage of network connectivity. Many people have started to work from home, the number of online learning other uses like the OTT, social media etc. has increased. It's observed that internet traffic has significantly increased by 25%-30%. In this article, authors have analyzed the global network connectivity performance with respect to the changes in usage. They analyzed various service providers or companies' feedback to these unprecedented conditions. The authors used secondary research methodology for quantitative analysis in order to understand the increase in usage.

16. Immersion of AR-VR in to Tourism Industry

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Virtual and Augmented Reality, in 21st century, is a technological gift that paves a new way for the researchers and Tourism Industry. In the COVID 19 era, where travelers will be extremely cautious in terms of future bookings as well as which destinations to select the closer they can be brought to the real experience the more inclined, they will be to make a decision, as well as an actual booking, for when lockdowns and social distancing restrictions have levelled out into a new normal and AR-VR turning out to be very crucial in the tourism and marketing scenario. The objective of this article is to display the beneficiary aspects of indulging AR-VR into Tourism Arena to fight back the loss caused by COVID 19.

17. Cyber security in the Quantum Era - A Study of Perceived Risks in Conventional Cryptography and Discussion on Post-Quantum Methods

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Information security in communication networks is a persistent problem and essentially requires the usage of encryption methods. Quantum computing was first used to break encryption codes in the latter half of the 20th century with the introduction of the Shor algorithm. Though the recent developments in QC capabilities have increased confidentiality, integrity and availability of networks by protecting them against passive attacks like eavesdropping yet the transformation of classical to quantum computation can bear catastrophic implications as it has the potential to put the currently secure methods of transactions in jeopardy. This research article aims at the evaluation and comparison of traditional cryptographic techniques by the application of a SWOT framework and takes up an exploratory study of the advanced quantum computing capabilities that can pose a massive risk to network security. The various security enhancements that can be adopted in data transmission to curtail these risks post-quantum are also discussed.

18. Hyper Automation in Transforming Underwriting Operation in Life Insurance Industry

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Today in the hyper connected world, technologies like robotics process automation, machine learning, artificial intelligent, natural language processing, optical character recognition etc offers various automation opportunities for every industry. Particularly in insurance industry, automation can stand up to being the game changer. Underwriting operation still rely heavily on experience and labor-intensive processes facing new and increasing risk, disparate systems consuming time, enormous effort to assess increasing volumes of data. Against this backdrop of inefficiency, the underwriter's job is getting harder, complex risks are emerging around cyber protection, natural catastrophes and fraud. At the same time distributor brokers are demanding that underwriters quote more quickly, more often. The rationale of this conceptual article is to propose a model

that outline a way for life insurance underwriting software procedure to optimize and simplify the customer acquisition process by quoting personalized premium. The research also touches upon cost benefit, and cases of similar implementation. The model demonstrates the application of intelligent processing, intelligent monitoring, and intelligent assessment using various automation capabilities. The study aims to provide an end to end automatic system to underwriting operation without human interference, overcoming the shortfall of current model

19. Smart Warehousing and Its Benefits to the Industries

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In this research paper we will understand what is smart warehousing, why it is important for the e-commerce and other industries to change their traditional warehousing management to smart warehousing using latest technologies like IOT devices, WMS (Warehouse Management System), RFID, AI, Auto Guided vehicles and robots and many more. We will also be understanding the benefits of warehouse management to the companies. As the ecommerce industry has grown in such extent that the consumers demand for various products from the e-commerce websites or platforms such as durable, nondurable, electronics grocery items etc. This type of product diversification is must in the ecommerce industries to increase their sales and revenue generation. Also, with this the e-commerce companies will be able to retain their consumers for longer period as they will not have to visit other platforms to purchase different types of products. Hence to meets these diverse demands of consumer the e-commerce companies must adopt to smart warehousing techniques to store different types of products and efficient delivery of products through well organised supply chain network. This research paper also presents challenges faced by the enterprises in respect to adoption of the new technologies for smart warehousing

20. How Industrial Analytics Backed by IoT will Transform Manufacturing Industry

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TIn the present scenario of Industry 4.0, a large volume of data is being generated every day in the manufacturing industry. The large equipment that operating in the industry are generating huge data daily. Industrial Analytics (IA) tackles the collection of data that is created during manufacturing process and analysis of that data to find and capture unique patterns that can increase the productivity and help the company towards effective decision making. Industrial Analytics need IoT sensors to work effectively and these sensors are responsible for capturing the data required for the analysis and finding out unique patterns. Industrial Analytics based on IoT will not only improve the whole process of manufacturing, it will also increase the overall efficiency and productivity, better quality assurance and also improve the workers' safety. Industrial Analytics based on IoT is being extensively used for the purpose of Predictive maintenance of the large industrial equipment/machines. This research discusses the process of how Industrial Analytics is being used for the purpose of predictive maintenance, related types and workflows, current market growth and future, limitations of predictive maintenance. The paper also discusses few cases where industrial analytics was successfully implemented. causing the low-quality crop yield. Older farming techniques with no technological support or forecasting benefits

21. Application of Artificial Intelligence in Cyber Security

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We are living in a digital era where everything is happening through the internet. Payments, buying and selling are happening through online platforms. As more people are using the internet for various purposes, the cyber security threat also increases. Many agencies predict the total cost of online crime will be above 6 trillion dollars by 2021. Hackers not only steal their data but also many times destroy the complete business itself. Artificial intelligence (AI) is a very powerful technology that can incorporate cyber security measures to enhance the protection against unfamiliar types of cyber-attacks. Over the years many advanced methods have developed with the help of artificial intelligence to prevent cyber-attacks. This research paper will give

a brief about the alternative artificial intelligence methods which are used by different corporate giants to prevent cyber-attacks. Also, this paper discusses the advantages and disadvantages of artificial intelligence and the opinion of organizations about the necessity of using AI in cyber security.

22. Risk Assessment and Mitigation Techniques of Cyber-Attacks in Emerging Technologies

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Cyber security is one of the emerging issue now a days. With the arrival of more advanced technologies starting from the, cloud computing, IoT, Machine learning, AI, the whole industry is reshaping its dimension and this new dimension got its name as Industry 4.0. The world has seen Industry 1.0, was all about the emergence of the steam engine then came the Industry 2.0 where industries became electrically powered and mass-produced devices and later Industry 3.0 with the evolution of computers and robots. The organization has always fought with security issues but the challenge of managing and preserving the data safe from intruders is not an easy task. Newer technologies will be the new attack surface for the attackers and fighting with those attacks and mitigate them is the duty of any organization. This research article presents a study of security methodologies used in the emerging technologies of Industry 4.0 to reduce attack surfaces

23. Trends in the Growth Pattern of Digital Payment Modes in India after Demonetization

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A phenomenal growth can be observed in digital payments in India in the past few years. The purpose of this study is to analyze the growth pattern of different modes of digital payments in India for the past four years estimating the key factors or restrains responsible for trends in digital payments. Descriptive statistics has been used as the methodology for this research by doing a trend analysis of transition in digital

payment modes in India. Quantitative data collection is undertaken for 4 years from 2015-16 to 2018-19 and analysis is done through bar graphs and trend line. Mobile phones, internet explosion and new bank accounts are estimated to be the main digital payments enablers. The findings of the research would provide practical insight into the Fintech, Banks, economists, and decision-makers in this sector regarding the adoption and growth of digital payments in India.

24. Digitalization and Its Impact on Indian Economy

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This study discusses the digitalization and its impact on various sectors of Indian Economy, On July 1st, 2015 under the leadership of honorable Prime Minister Narendra Modi took the very first and crucial step towards “Making India Digital”. This is aimed to connect the rural parts of the India with Internet Connection and make them digitally literate to understand the development happening in their own sector and to inculcate them. India is one of the fastest developing nations with a very high young population accounting to (~65%) whose age is less than 35 years. Impact of Digitalization can be clearly observed only when the Individuals are capable of understanding and adopt them, for that every individual have to be financially literate which makes them capable of making judicious decisions, post digitalization financial transactions have to be taken through internet keeping that in view digital financial literacy has become the essential knowledge, through digitalization we can change a business model and provide new revenue and value producing opportunities. This paper focusses on how Digitalization has impacted the MSME and service sectors and how implementation of industry 4.0 has not done in larger scale. Why digitalization is so important and what are the sectors got impacted and how can we as emerge 3rd largest economy in the near future and how digitalization helped in bringing the transparency in the financial transactions and raise of usage of E Wallets.

25. The Impact of Social Networking Websites NN College Students Academic Performance

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As a result of growing internet adoption, students in the developing countries are becoming more addicted to social media and other related applications which is affecting the time spent on their academics. The purpose of this research paper is to understand whether social networking websites are making positive effects on student's educational performance in different educational institutes across India. Data was collected by means of survey using structured questionnaire which was conducted across different educational institutes in India. Analysis was done by using SPSS. Cross tabulation is used to compare the variables for analysis purpose. The outcomes show that there is sure effect of long-range interpersonal communication sites on understudies' instructive execution. This paper will help educational institutes to understand the student's behaviour on social media and can be useful for students to manage their time spent on social networking website such that it does not adversely affect their educational performance.

26. Comparison of Select Digital Maturity Models for Digital Transformation Dynamics

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Decision-makers and managers within their organization need to transform routines and behavioral structures in order to address the difficulties presented by the digital world. The study involves the comparison of different digital maturity models in order to take insights on the model used for evaluating an organization's level of digital maturity. The study compares dimensions and design parameters used for building different models for digital maturity, widely implemented in the industry. This gives an insight for selection of parameters while attempting to implement a plan for digital transformation, where various risks and challenges are also seen. The results show underlying differences in terms of content-related and methodological approaches, companies face various challenges, integrating new technologies, ineffective gathering and leveraging of data, privacy assurance, and security issues in digital transformation and for their digital road map as well as giving a comparative benchmark.

27. Marketing Effectiveness via Persuasive Advertising in the Digital Age

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The modern market has enabled digital advertising to take brand engagement among consumers to a deeper level through communication, customer feedbacks, subscriptions, price comparisons and personalized content. This research aims to determine the co-dependency of advertising characteristics namely in formativeness, creativity, personalization, and consumer attitudes like brand loyalty, buyer motivation, and manipulation on consumer purchase decisions, and measures the influence of online media on digital advertising effectiveness. The rationale for this research is to determine the factors that could help marketing professionals/advertisers strategize in the context of persuasive advertising in the digital space. Quantitative research methodology has been used in determining the factors that contribute the most towards digital advertising effectiveness, thereby performing statistical analysis on a samples collected across various demographics through online questionnaire. Findings of this research show that the successful execution of an advertising campaign is subject to not only consumer perception, but also the advertising characteristics that build better brand engagement. Research implications suggest that the study will prove helpful to buyers, marketers, managers, and media companies by providing insights into the consumer perception as a result of persuasive advertisement, in turn, developing means to build trust in the Consumer's market.

28. Intelligent Automation - Uses, Benefits, and Impact

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Digital Transformation has necessitated massive transition in operating regimes of businesses resulting in the adoption of upcoming technologies to extract optimum productivity. Intelligent automation, a combination of artificial intelligence and Robotic Process Automation is not just capable of automating repetitive, structured processes but also process unstructured data and provide with accurate predictions based on the analysis. However, not much exploration is conducted in the domain of intelligent automation and its contribution to the various sectors such as banking, insurance, healthcare, etc. Hence the objective of this study is to explore and understand the uses

and benefits and impact of intelligent automation across different industries. A case study approach has been adopted for this research wherein firstly various use cases of intelligent automation are studied and then we outlined how intelligent automation can help in smooth operations reducing human intervention and improving accuracy in business forecasts for future applications.

29. A Study on the Acceptability of Green Products in Pune Region

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With rising markets and increasing customer volumes, the ecosystem is dramatically degraded by the production as well as consumption habits. Governments, consumers and producers have recognized the significance of this issue. Industries' department of research and development is continuously working to develop environmentally friendly products that causes less environmental destruction. Items that are recyclable and have a safe disposal are also referred as green goods. The objective of this study is to understand the notion of green product and consumer behaviour towards it. The study also investigates the relationship between green product use and intention to purchase and demographic variables. The findings provide a significant insight into the factors predominantly responsible for inspiring and discouraging customers to buy green products. Eco-friendly nature and knowledge about green products are the driving factors while limited awareness about green products, cost of installation are the factors which reduce the sale of these products.

30. Emerging Revenue Models Adopting Block chain Technology by Indian Telecom

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Block chain became widely popular in 2009 due to the invention of Bit coin. In India, Telecom operators being in an emerging market, have huge untapped potential for using block chain for revenue generation. There is a dearth of academic research in the

area of developing block chain enabled revenue models specific to telecom industry. Hence the objective of this paper is to identify the revenue models which can be employed in telecom companies by adopting block chain technology. This study tries to add to the literature by exploring the following aspects a) The attributes of Indian telecom companies for adoption of block chain (b) The bottlenecks for this adoption and risk associated and (c) viability of use cases which can be implemented by Indian telecom companies. Primary data was collected in the form of expert interviews and the data was analyzed using regression techniques with the help of SPSS to develop the conceptual model.

31. Digital Infrastructure Management-Challenges and Opportunities in the Post Covid Era

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The 2020 pandemic has been the most serious issue in the medical as well as mankind history. It has impacted various lives in one way or another. There are multitudes of death cases globally and census is piling up at its fastest rate as possible. This lockdown has not only stressed the medical field and infrastructure but has also paved its way in the digitalization sector. While observing the lockdown, the world's economy has faced a steep fall due to sudden and unexpected hampering to the daily work. This opened the door to the digitalization. Digital field has seen a great hike where all the work is shifted from offices to home. It has opened various opportunities but also faces major challenges which expect to furnish after the pandemic crisis. This paper deals with the aspects of digital infrastructure in the post Covid-19 era.

32. What Makes Users Invest in Gaming Application of Smartphones?

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The mobile gaming industry started in 1994, and millions of games belonging to different genres have been developed since its inception. The mobile gaming applications cover a large customer base, and they have been among the highest

revenue-generating categories of smartphone applications. A significant number of free smartphone games are available currently, but many users opt for the paid ones. The objective of this paper is to determine the factors which make the users addicted to mobile games and influence them to make purchases in it. Here, the factors have been broadly divided into three categories viz. social attributes (mass influence and peer influence), personal attributes (self-efficacy and personal motivation) and attributes of paid game applications (perceived price, perceived value. To achieve the above objectives; data was collected and evaluated from 135 respondents. Highlighted critical factors may provide guidance to mental health patients and professionals.

33. Augmented Reality: Study of Implementation, Implications and Future Development in Education, Retail, Medical and Manufacturing Sectors

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There is an increasing implementation of advanced technologies to cater to the ever changing needs of the consumer. Businesses are making use of these technologies to develop innovative services to attract more consumers. The purpose of this research paper is to understand the implementation of augmented reality technology in the services provided by businesses, implications on the business and improvements which can be done in future for provision of better service to the consumer. A case study approach has been adopted wherein various use cases related to Augmented Reality in education, retail, medical and manufacturing sectors are studied. This study will be useful for academicians, businesses to understand the use of augmented reality technology and develop new ways to increase its efficiency.

34. Evolving Robotic Process Automation (RPA) & Artificial Intelligence (Ai) in Response to Covid-19 and Its Future

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The Subscriber Identity Module (SIM) card technology has been evolving in size and features over the years. A SIM card is identified by the end users and acts as a means

of identifying devices onto a specific network. Embedded Sim cards with remote provisioning capability can be proved to be a very efficient solution and would add new features aiming towards improving the scalability for the Internet of Things (IoT) applications. The growing rate of Machine to Machine Communication (M2M) is witnessing challenges with the traditional SIM card technology. The advancements in applications and the need for faster data speeds and access requires efficient mobility solutions. This study will help us understand the traditional cellular network structure, SIM card technology, and how the possible future scenarios in Machine to Machine (M2M) Communication would be changed by upcoming ESIM technology. This study would focus on the technical as well as business advancements, benefits, and challenges involved in the adoption of ESIM technology.

35. Use of Artificial Intelligence to Screen COVID-19 Patients

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The day when the first new novel coronavirus case was diagnosed was on 8 December 2019 in the Wuhan city of China. The breakout was tremendously visible in January 2020 when China started getting exponential number of cases. The graph shows the number of incremental cases in Wuhan during the three months of Jan-March 2020. Epidemiologists suspected that the coronavirus cases would reach a peak of its count in ninety days and would further disappear almost in four to five months of time. The unstoppable increase in the cases couldn't stop the panic in the community, the irreparable losses families were facing could not be ever set right again. The World Health Organization (WHO) on January 31, 2020 declared China's novel coronavirus as a public health emergency of international concern" (PHEIC) worldwide. By this time the virus had started spreading in large numbers in other countries as well. China also expressed their concern on the asymptomatic and non-predictive nature of the contagion virus. Novel coronavirus is an infectious and contagious disease which can be transferred through respiratory tract even with a tender particle from the infected person. On 11 March 2020 the World Health Organization (W.H.O) declared the situation as a pandemic condition over the world. It is therefore a global health crisis and therefore many countries have imposed different kinds of restrictions like: flight travel restrictions (international as well as domestic), border movement restrictions, total lockdown in cities and towns, following norms of social distancing and special training on hygiene and sanitization. However, even after implementing all these the spread of virus is not easily contained. A large amount of people diagnosed with COVID-19 seem to be facing one or the other kind of respiratory illness while some

developed deadly pneumonia. There are found possibilities that the people with more age above 60 years and with predefined issues of diabetes, cardiovascular disease, respiratory issue, hepatic diseases, cancer diseases are more likely to develop the illness as their immunity system already is not functioning well. Until now there is no define treatment or vaccine which is hundred percent effective for COVID-19 treatment.

36.Leveraging AI for Secure Public Cloud

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The enormous volume of applications on and the requirement of massive infrastructure to provide services has requisite Enterprises to move towards Cloud Computing. Hosting applications on Public cloud have various advantages such as reduced cost and scalability; however, the security concerns pertain. A data breach can create mistrust among customers and impact the company's brand and lead to financial losses. Subsequently, the need to secure the applications on cloud is increasing and enterprises need to employ best practices and work with their security teams and identify ways to incorporate advanced technologies such as Artificial Intelligence to utilize its capabilities to identify threat, mitigate risks and predict upcoming issues and counter them on time. The volume of applications on Public cloud are rapidly increasing and the cloud ecosystem is complex and need to be safeguarded by security teams. Also, security is a major concern for cloud migration and early detection of threats and vulnerabilities is important, Application of Artificial Intelligence is of dire need to identify the threats faced in cloud computing and safeguard the security of enterprise applications. This paper proposed a framework for leveraging AI for public cloud computing to identify threats and vulnerabilities in cloud applications. This paper further discusses the applications of AI for cloud security practices.

37. Digitization In Fisheries Sector: An Analysis on Technology Expertise of Fisheries Sector's Stakeholders of Vizhinjam International Port and Neighbouring Villages.

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Digitization is regarded as one of the key factors for the development of our country, often there is an assumption the upper class or upper-middle-class section of the society can utilize sophisticated technology. But the true essence of digitization lies in making sure that any citizen can handle technology and can be technologically empowered. Traditional fishermen are another such category who do not belong to, or perhaps not considered, upper-class or upper-middle-class society. The coastal village of Vizhinjam and its neighbouring village is setting an example by befriending technology in their favour. This monumental leap is setting an example not only for the use of digital technology in the fishing industry but also for all agriculture-based industries. The research aims to study and bring out their level of knowledge and expertise in handling these machines and also to trace to the source of implementation, the effectiveness, etc. of these technologies in their occupation. The technologies focused will include communication and positioning technologies and other technologies involved in trade and auxiliaries.

38. Cyber Security Trend Analysis using Web of Science: A Bibliometric Analysis

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Post COVID-19, it is almost certain that most IT/ITES enabled industries will harness the capabilities of the cloud to promote remote working culture. With organizations going online, it is evident that probability of cyber-attacks will spike exponentially. Therefore it is very crucial for all digitally enabled industries to keep abreast with the current trends, concerns, and on-going research in the field of cyber-security (Gochhait, Shou, & Fazalbhoy, 2020). To enhance this study, the research has been conducted from the year when the first paper in the field of cyber security was published to date, which is from 1998-2020. The extensive trend analysis has been conducted using bibliometric analysis taking into consideration various parameters for analysis. The research uses

Web of Science directory for data analysis, studying approximately 2184 records to enlighten the scholars around the world. This research will help academicians, students, and experts to get a complete idea of the development of cyber-security as a research field. The analysis has revealed a positive growth in the literature. The sudden growth of publications was found after 2010 with about 300 published yearly in recent past. To name a few, IEEE, Elsevier and Springer were amongst the most popular publications for quality papers on cyber security. Countries like the US, UK, Netherlands, Switzerland, Germany, and Canada have contributed significantly to the research related to cyber security.

39. Neo Banking - A Feasibility Study in the Indian Context

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From the origin of banking in 1750 BC till now, people have been dependent on banks for their financial needs. Today, however, the banking industry is undergoing a transformation. With the availability of digital platforms, banking is gradually shifting from physical banking to online banking and digital wallets. From online payments and lending - to asset management platforms, banking has taken a huge leap in the past few years. The presence of 'Fintech' can be seen clearly in India as consumers prefer online payments through various modes. 'Neobanks' or 'digital only' banks are one such new-age banking service provider. A neobanks is an entity providing financial services on an online platform which is totally 'virtual', with no physical presence at any location. They are customer-focused and offer personalized 'digital only' services. They do not provide any physical service, access or intervention. The entry of such neobanks at this stage can transform the financial services landscape in India. This paper explores the emergence and growth of neobanks in the global economy, and the regulatory and other concerns about them. It discusses the feasibility of co-existence of neobanks with traditional banks in the Indian banking scenario. It also provides an analysis of customer perception and preference of willing adopters of neobanks and suggests the way forward for these banks, against the backdrop of ever-evolving technology and consumer preferences.

40. Cyber Risk Mitigation in Cloud Computing Environments Using Block chain Technology

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Cloud Computing has gained widespread use over the past few years. However, in recent times, there is an alarming rise in the cyber-crimes across the globe which has made it a major concern. IT systems and the information generated is being target of the advanced cyber-attacks therefore threats to data integrity are of foremost pertinence. Block chain technology is providing convincing properties about data integrity. In academic research, very few studies have focused on how Block chain Technology can be used in cloud computing environments for data integrity. The objective of this paper is to comprehend how Block chain can be used to mitigate the data integrity threats caused due to various cyber-attacks in the cloud computing environment. Case study approach has been adopted for this study wherein the use cases of Block chain Technology in cloud computing environments are briefly discussed along-with future applications which will help create customized solutions for the clients.

41. Enabling Digital Transformation with Cloud Native Architecture

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With the advent of high speed internet, better connectivity and cloud computing, organizations of today or even individuals look to transform themselves in order to leverage the benefits. Digital Transformation could loosely be defined as the changes brought forward with the application of digital technologies be it in organizations or in all aspects of human society. Cloud Computing and Cloud Native Architecture plays an important role in enabling digital transformation across organizations. Cloud Native Architecture can be defined as the blueprint or architecture for applications and services that are designed to reside specifically in the cloud. Micro Services form the base of the cloud native application architecture. Cloud Native architecture completely leverages the advantages of distributed, scalable, and flexible nature of public cloud. In this research paper we have presented different cases of enabling digital transformation with the cloud architecture.

42. A Bibliometric Analysis of Telemedicine: Remote Healthcare Delivery Over The Years

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The concept of telemedicine plays a huge role in the digital evolution of healthcare. With the onset of social distancing and lockdowns, remote healthcare that allows efficient diagnosis and treatment using telecommunication devices, plays a major part in our daily lifestyle (Gochhait & Omale ,2019). Over 70% of the healthcare industry uses telemedicine in the form of gadgets or apps to connect with their patients. The purpose of this paper is to analyze how much telemedicine has grown and its diverse applications and benefits in the field of healthcare and technology throughout the years by performing a bibliometric analysis of databases from the Web of Science Core Collection. Numerous records were analysed which talks about the various trends of telemedicine that have been used all around the world to improve healthcare and make it more available to us at anyplace and anytime. According to the analysis, the USA had the maximum number of publications on telemedicine, with Australia and England following. The years 2016-2019 showed the maximum publication as these were the years when telemedicine and E-health devices and applications started to grow and become more popular. Telemedicine is now considered as the answer to transform the healthcare business and improve patient care irrespective of where they are without compromising on their satisfaction. This analysis gives us an overview of the progress of e-health implemented around the world over the years (Gochhait & Omale, 2018).

43. Application of Modern AR/VR Technologies in Brand Promotion

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The purpose of this paper is to analyse modern intelligent technologies like augmented reality (AR) and Virtual Reality (VR) that can be used in marketing products and services and promoting brands. The descriptive study analyses and evaluates the emerging trends and technologies which can be applied in marketing including brand promotion. The study uses secondary data from the internet for performance evaluation of emerging intelligent technologies used in marketing. After evaluating

various emerging intelligent technologies that can be applied in marketing and brand promotion, it is found that AR/VR technologies are better in enhancing the brand image and reach a wider audience while helping companies reduce overall marketing cost. The paper suggests a new road map to companies in today's extensively competitive and digitized market, which will be helpful to new as well as existing companies in marketing of products and services and brand promotion.

44. Fintech in Indian Capital Markets

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The advent of advanced digital technologies has already caused disruptions across many industries. Financial services sector is also collaborating with Fintech to transform digitally. Post- demonetization, the Indian government created a favorable environment for FinTech. Many new financial products are brought in by new start-ups. Fintech has created a paradigm shift in availing of Financial Services. The primarily data-driven capital markets have been positively affected by Fintech. However, the technology implementation is still at a very nascent stage and there are impediments and challenges along the way. This paper studies the application of advanced digital technologies in Indian capital markets through secondary research. It analyses gaps addressed by advanced digital technologies, opens new avenues for potential breakthrough and the impediments and challenges for effective implementation of the technology.

45. Competition in the Indian OTT Industry: Case of Zee5

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The research article discusses the factors that drove ZEE to consolidate its previous Ditto TV and OZEE online streaming platforms to come up with an all-new ZEE5. ZEE learned from past experience with its previous launched OTT service Ditto TV and OZEE which had failed due to price sensitive plans and increased market competition. ZEE, which already has vast content from original shows and films to digital movie premieres, short fiction content, it chose regional content as its key differentiator

and offered an exclusive content from its vast broadcast network of 45 channels in 12 different languages. ZEE5 is always questioned about its absence in sports and international content which can be a huge growth driver for consumption on OTT platforms. The case also suggests new areas which can be explored to enhance the experience of its customer to withstand the rising competition in Indian streaming space with both international and homegrown platforms.

46. Cyber security in Digital Epoch: Emerging Threats and Modern Defense Techniques

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Over the years, developments in the ICT industry have opened doors to countless cybercrimes. Numerous tools and security solutions are available in the market to deter such cyber threats but even with such comprehensive efforts, e-crime is growing exponentially each passing day. Although technology has revolutionized the way organizations work today but wider utilization of technology leads to more and more possibilities of security vulnerability. Enhancing access and improving connectivity to harness Digital Transformation is a priority. The key focus of this research paper is to address the security threats that arise from current and emerging technology, modern and cutting-edge cyber security threat mitigation strategies that need attention, and the opportunities that lie in the cyber landscape. The paper will be helpful for all those companies that are already digitally transformed or shifting their offline business models to digital and connecting people and devices over the internet, by providing them with requisite insights into cyber security.

47. Role of Augmented Reality to Enhance Consumer Experience: A Bibliometric Study

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Technology helps companies stand out in the crowd, by providing the latest goods and services to serve their customers better. If we look at technological advancements, there are a number of technological tools that affect us and one of them is Augmented

Reality (AR). From Virtual Reality to Augmented Reality and Mixed Reality, consumers have witnessed an amazing experience. This paper aims at reviewing and discussing the research studies on the role of augmented reality across various industries to enhance customer experience on a global level which were published in Peer Review Journals and indexed for the period 1999-2019 on the Web of Science Core Collection. The analysis examines, how the technology has been adapted by various industries by taking into consideration the publication volume, authors and countries that have collaborated together. This study takes detailed evaluation at current trends in AR and the future potential areas for smarter consumer experiences. The study will be useful for AR and Mixed Reality practitioners to create customized solutions for customers; for academics as it adds to the literature on technology adoption across different sectors; and for society as a whole to benefit as customers gain better knowledge of the applications of AR to make an informed choice whenever they engage in purchase of products and services which will maximize their user experience.

48. Impact of Lockdown on Indian Consumers' Psychological Behaviour and Attitude towards the Consumption of Packaged Dairy Products

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The Novel Corona virus disease is a human affliction caused by SARS-COV-2 and complete lockdown is an alternative to stop the spread of the virus. The aim of this study is to determine the effects of Corona virus disease lockdown on Indian consumers' psychological behaviour and attitude towards the consumption of packaged dairy products in a view of the Theory of Reasoned Action (TRA). The study used an online survey and in-depth interview of selective respondents. The survey collected information of consumers' behaviour, attitude towards a packed dairy product, their willingness and information needs, to analyse the pattern of buying the packaged dairy product before and during the COVID-19 lockdown and their psychological behaviour behind that. The research method was a phenomenological approach and data were analysed by using MS-Excel software.

49. Impact of 5G in Healthcare Sector

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Healthcare sector is an aggregation and amalgamation of goods and services to provide top-notch rehabilitation, curative and palliative care to the patients. It involves the flow of goods, information, and commercialization of services. However, as the industry grows, the healthcare sector becomes inefficient. Integration of emerging technology in healthcare sector, resolves and overcome numerous challenges such as communication gap, information tracking of patients, etc. in hospital organizations. Uniqueness of the study: In academic research, very few research studies have focused on the business benefits of emerging technology such as 5G, AI, IoT, etc in management of healthcare. Objective: The objective of this research is to gain insight into how the field of healthcare domain when merged with 5G-enabled technology will provide businesses to gain a competitive edge as well as used to overcome the arising challenges and problems faced by health organizations in operations. Research Methodology: A case study-based procedure has been implemented for this research study. Collected literature such as online-based databases, articles, whitepapers, and website reports has been studied for significance to the topic.

50. Business Intelligence for Reducing NPA in Indian Banking Sector

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Indian Banking sector is a blend of Private as well as public sector banks. The banks are responsible for majority of the lending operations that took place in the economy. But, since 2008, the returns on the assets of Indian Banks are continuously falling (Paul, 2018). A healthy banking system is the backbone of healthy economy (Sitharaman, 2018). Hence, to help banks to make wiser decisions about creating the fruitful assets in the future, the paper advises use of Business Intelligence to help the decision makers in taking sound decisions and ultimately preventing productive assets in the future. This paper is an attempt to use the Business Intelligence tools to predict if the loan application will turn stressed or not. The outcome of this paper will be on suggesting

parameters for the Indian Banks to judge an asset-to-be about its fruitfulness, so that the NPAs of these banks will be reduced in future.

51. IoT Security and Privacy Concerns in Cloud Ecosystem

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In current times, devices are connected over internet to make our life simpler without our actual involvement. The backbone of this connectivity is an advanced technology which plays a protagonist in this networking world through material object embedded in RFID form. Technology that we will deep dive into is IoT and the other one to enhance this is cloud computing. Cloud of things has completely driven our lives in this ubiquitous computing world whether it is computing, networking and, storage this purpose can be achieved easily by pay as per usage and that too on-demand basis. Unfortunately, when the users and IoT devices continuously share networking resources and computing remotely, it projects the security issues. Therefore, preserving data policies is highly important in this environment. So, in this research paper, the prime focus is on critical risk i.e., security and privacy issues by analyzing potential challenges and security issues that are yet to be resolved. This technology is our future and therefore getting more attention on the security part. Thus, it requires the deployment of high-end security and policies which can ensure confidentiality of the data, authentication of devices, managing and monitoring the access point, and integrity of the network.

52. Impact of Advanced Digital Technologies on Healthcare Sector

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This research paper studies the impact of advanced digital technologies (ADT) on the healthcare sector. These include technologies such as augmented reality (AR) & virtual reality (VR), internet of things (IoT) integration, artificial intelligence (AI), 3D printers, machine learning (ML), digital apps, big data, and organ-on-chips. Introduction, adoption and development of these technologies are going to primarily drive the

healthcare sector in the near future. The data are analysed to gain insights about application of these technologies in healthcare. Secondary data is sourced through various journals, research papers and technical sources on the internet. This study, analysing global impact of advanced digital technologies resulting into transformation of the healthcare sector, will be useful for Indian healthcare companies to design a road map for India, which has a great potential for development of healthcare.

53. Leveraging Block chain for Communication Service Providers (CSP) to Combat Fraud and Enhance Revenue

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Block chain as an emerging technology is being adopted by multiple sectors, including Telecom. This article explores how Telecom sector can deploy this technology to improve the Communication Service Providers (CSP's) revenue growth and build trust among the subscribers by preventing the frauds. This article inspects how this technology will help to increase the throughput and the overall efficiency. Block chain technology is a shared digital ledger which helps to update all transactions that are happening. These records will be stored in a decentralized ledger where only concerned people can access it. This article will also talk about how deploying block chain for International roaming services by having the shared ledger in a way so that CSP's and the subscribers both are benefited and fraud is prevented. This technology can also make the billing process simple. Eventually, all these will lead to increase the trust of the customers and subsequently the revenue growth will also increase. Nowadays the Telecom sector is in a position where they cannot afford any risk of fraud in their internal operation because of the heavy competition and loss. This is the reason why telecom companies can completely rely on Block chain technology.

54. IoT Device for Modern Agriculture (Repelling Bird Frequency IOT Device Sound System)

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Food is that the most vital requirement for living beings. Now a day's security of agricultural field is extremely important. Crop damage by birds may be a severe problem in most of the areas everywhere India. Field surveys showed that on a mean 36% of the crop were damaged by wild birds. The incident of injury was very high in crop birds. In lifestyle farmers facing different quite problems in agriculture. In olden days different quite animals enter into crop they're damaging the fields. For reducing those sorts of problem they're used different quite technique. Now a day birds are major problem in agriculture. Birds are falling on crop and eating it. In this research paper we are solving some problems. Every animal or group of animal has a selected range of hearing frequencies. There irritating frequency is estimated by a selected logic. In day life birds creating irritating sounds in agriculture and out sides' fields also. At early morning and night time birds falling on the crops and eating rice seeds, Rabi crops, cons and wheat etc. so we can create irritating sounds for birds, then they will fly outside of the sector. By using this research idea we will able to reduce mostly affected problem in agriculture.

55. Future of Marketing – A Research into Integration of CRM, Data and IoT to Provide Exceptional Customer Service Experience as a Method of Marketing

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To understand how the use of modern technologies can leverage customer data to provide exceptional customer service experience and transform it into a method of marketing in coming times. Importance of customer service experience and how latest technologies like IoT, ML, AI, cloud computing integrated with CRM are empowering companies provide it to their customers who go on to become the promoters of brand thus helping in marketing efforts of the company. This will help companies understand the value of the service they provide to their customers and how providing an exceptional customer service experience using latest technologies can be a method of marketing and brand building thus bringing in revenues for the company.

56. Impact of Behavioural Biometrics on Mobile Banking System

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The rise of online mobile banking systems has given customers a convenient and better way to interact with the bank as and when they want. Smartphones have revolutionized the world of payment. People now use mobile phones more often to make payments. But with increasing frauds and cybercrimes, customer experience and security becomes the major concern for any bank. In such situations, biometrics especially behavioural biometrics can be used. In this paper we are going to discuss how behavioural biometrics can be widely adopted to reduce frauds.

57. Competition in the RPA industry: A Case Study of Blue Prism

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Robotic Process Automation is the latest technology development that automates lower end repetitive jobs and frees up employees to perform high end tasks, thus enhancing productivity.. Multiple vendors offer specific RPA technology and have become a separate industry vertical. Blue Prism has established itself as the recognized brand in the RPA industry and has products targeted towards the large enterprises. The enterprise RPA solution provided by Blue Prism provides automation mainly in unattended and back office automation using cloud environments. The company has a high minimum license requirement which is very costly for small organizations and competitors have built a marketing strategy targeted at small organizations. Research highlights that the Blue Prism offering lacks in-house front office automation, absence of in-house marketing capability and lack of centralized monitoring and orchestration platform. Through this study, we aim to offer solutions to these limitations of the RPA offerings by Blue Prism.

58. Covid 19 Impacts on Indian Economy and Technology

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The world witnessed the biggest pandemic after almost 100 years. The impact is felt in all walks of life. It will be early days to predict too many things. But it is essential to foresee the economic impact of Covid19. In India, which was already in economic turmoil it remains to be seen how this new blow will affect the economic cycle. The paper attempts to do this in various sectors like agriculture, tourism and industrial sectors. Secondary data is reviewed for the study. The paper also discusses innovations in this reference. And it also discusses the steps that the country is taking to sustain this situation. It uses estimation techniques for predicting the economic impact in the various sectors.

59. Precision Agriculture: Innovation in Agriculture

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Precision farming refers to the latest trends in agriculture that uses technology to make the quality, quantity and productivity better and thereby ensures profitability, sustainability, betterment, and preservation of the environment. The paper discusses the development and need for precision agriculture in India with its existing problems and opportunities. The challenges in future cannot be resolved with ancient methods. In order to make agriculture efficient and sustainable investment in new technologies accompanied with research and development is required. Agronomics is the highest contributor to national income. More than 70% of the total workforce is dependent on it. Agriculture industry needs top priority because the government and the nation both would fail to succeed if this sector does not succeed. The paper identifies various challenges associated with the adoption of precision farming in India and the technologies that could be used for better results and for the betterment of both farmers and the Agri industry of India.

60. 5G-Based Remote Surgery in India: Technological Requirement and Challenges

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Healthcare is currently experiencing a transformational change from conventional hospital and medical professional focused to a patient-centric approach. Rapid development in technology fuel this transformation in healthcare industry. Among various technologies, communication technology will play a crucial role in delivering personally tailored and remote healthcare services. Globally, the healthcare industry is all set for a paradigm shift with rise in adoption of devices with sensing equipment, technology, AR/VR capabilities and telemedicine. 5G will be the next generation of wireless communications technology with evolutionary and revolutionary services that can have a deep impact in India. In this 5G era Telesurgery has tremendous potential for delivering surgical healthcare facilities to inaccessible areas using high-speed data transmission over a wireless network. Remote surgery will spur the need for ultra-high reliability and low latency which will be supported by the new 5G technology which can fulfil most of the requirements such as high bandwidth, ultra-low latency, ultra-high reliability, high energy efficiency, and high density. The objective of this paper will be to understand the technical requirement for 5G based remote surgery in India and provide a comprehensive study on the challenges associated with telesurgery system and challenges associated with implementation of 5G in India which will be the driving technology for remote surgery.

61. Implementation of Block chain Technology in the Agriculture Industry

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Block chain Technology is a ledger of multiple transactions that has made a breakthrough in the financial sector by its implementation in the form of Crypto currency. BCT enhances transparency in any transaction and hence becomes a reliable source for conducting business between untrusted parties by excluding intermediaries like banks. Today the major focus of every industry is gaining and retaining the consumer trust. With globalization, there is ever-increasing consumer

awareness across the globe. Since food, food-related products are primary necessity of every individual, it's the major responsibility of the involved players to maintain the consumer faith, avoid fraud and fake products. According to The International Food Information Council transparency in the food supply chain is considered as one of the "Five Food Trends to Watch" [1].

62. Early Impact of Covid-19 on the Indian ICT Industry

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India is going through an unprecedented crisis because of Covid-19. Due to this 'force majeure', it has become very tough to continue business operations. In particular, industries such as manufacturing have taken a major hit. Most of the economic activities have shut down and significant loss of revenue has occurred. People are forced to stay at home amid the 'lockdown' imposed by the government and are not able to carry on their business activities. Businesses capable of being carried out from home require telecommunication services. This has enhanced the demand for telecom. Due to the lockdown, businesses have shifted online, physical meetings have got converted into video conferencing, movies can be watched only on OTT platforms, class room teaching has transformed into e-learning, and so on. While most industries faced a slump, Information and Telecommunication (ICT) industry has taken off like never before. This has compelled all the constituents of the IT and telecom ecosystem to reach a new symbiotic high to cater to this massive demand. As we expect a perennial co-existence with Covid-19, the movement of employees from homes to workplaces may not exist in future, or may reduce substantially. For ensuring business continuity, almost everyone is and will be relying upon the ICT industry. Seamless connectivity solutions are the need of the hour. This paper deals with the impact of Covid-19 and the consequent lockdown on the ICT industry. It studies the impact on 'Data Consumption' and its patterns across platforms, with reference to 'Average Revenue per User (ARPU)' and other indicators. The paper will also study how there is an overall change in the IT industry which a new work culture. Further, it also studies the effects on Content Delivery Networks, as they have been adapting to higher usage in this Lockdown situation. It predicts the impact of Covid-19 on the future of the ICT industry in India.

63. Review of Early Impact of COVID-19 on Indian Agricultural Economy and Disturbances in Food Supply Chains

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Many economists believe that COVID-19 poses a serious existential crisis for Indian rural communities. Analysis of performance of agriculture sector in last few months reveals that agriculture and allied sectors can give new momentum to the Indian economy. A food crisis is not possible in India as we produce 70 million tonnes of food grain more than the total national requirement. In the coming Kharif season, the input costs are expected to be higher than usual but government of India's response to mitigate high input costs is encouraging. The major problem is in the food supply chain, which needed serious intervention from stakeholders and support of state and central government. Disturbances and disruption in food supply chains have created high transaction costs. Spread of COVID-19 may create irregularity in food supply throughout India as 92% of produce is purchased and consumed within the country.

64. Digitally Disrupting the Customer Experience in Retail Industry

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The world is in the trajectory of going digital. Digitalization has revolutionized every business and retailing is no exception to it. Retailers are leveraging this opportunity to invest in customer experience. Digitalization is enabling retailers to explore advancements in technology to cope with the diversification of customer lifestyle. Advancement in innovation, across different retail channels and aware customers, is perceived to have a profound impact on the retail business and is the focal point of this study. The paper discusses the importance of digital infrastructure to capture customer insights and data across different channels. This research paper incorporates a confirmatory and exploratory method to explain how implementing digital solutions, products, and services help in delivering enhanced customer experience. The study incorporated an online survey administered to retail customers. The survey was conducted to examine the importance of digital technology in retail and what value does the technology adds to the customer's retail experience. The survey also takes

into consideration the pain points of the customers in traditional retail and suggests the ways digital technology can address them.

65. Monetizing Data Points to Increase Profitability for Banks

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GToday's digital world is functioning with a new asset - data. Businesses possess humongous volumes of data, opening up new revenue streams. The financial world has also started to recognize the potential of data. Payment providers can turn both internal and external data into a revenue earner, to create alternative business models. These models will be different for primary owners and custodians of data. This paper focuses on how banks can increase their profitability by leveraging and monetizing data. It studies the evolution of data monetization by different payment providers. Traditional banks used to charge fees for rendering services. This paper explores how banks can monetize data in several ways to generate new revenue opportunities for product cross selling or reach out to new customer segments. It analyses customer preferences across different payment platforms. The paper also discusses „open banking and other pain points, and strategies to tackle them.

66. A Study on the Impact of Robotic Process Automation on Businesses in Industry 4.0

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This paper aims to analyse and understand the impact of RPA on businesses across various sectors in Industry 4.0 especially during and after the pandemic. Qualitative primary research methods along with the analysis and observations of secondary data have been employed. Inputs from various senior executives and industry experts are taken by conducting personal interviews with different direct, indirect, and scenarios-based questions on the impact of Robotic Process Automation. The findings reveal that majority of the experts have a positive outlook towards the adoption of RPA by different businesses and it will be a major driving force in building a digital workforce by the organizations. The current study is conducted to study the impact of the

adoption of Robotic Process Automation in limited areas as it is still in its early stages. The implementation of RPA by organizations will lay a robust foundation for Industry 4.0 to function in its optimal capacity by boosting the performance and productivity which will be critical while tackling the financial and resource crunch due to the pandemic.

67. Social Media Influencers and Consumer Purchase Decision with Special Reference to Beauty and Wellness Products: A Study of Millennial's in Pune

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Brand's are always on the look-out for imaginative techniques to capture their target segment in the most constructive way and social media plays a vital role. Social media marketing involving endorsements and product placements through influencer's which is a rising trend among the young Target audience; especially millennial. This paper investigates the role of social media influencer marketing strategy in driving consumer purchase decision with special reference to Beauty and Wellness products amongst millennial's in Pune city.

68. A Study of Artificial Intelligence in Fashion Industry

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Artificial Intelligence is playing a crucial role in everyone's life and it has changed everyone's life in a lot of ways. Artificial Intelligence has affected various sectors and it has made the functioning of all the sectors easier. One of them is the fashion industry. In this pandemic, fashion industry has become fully digital. People shop online and for this fashion sector is using Artificial intelligence to improve user experience. The main purpose is to analyse the application of the fashion industry from the perspective of using it as a recommendation system. For this study, the survey has taken to understand what respondents think of Artificial Intelligence in fashion industry. The survey collected 156 responses, with 86 male respondents and the remaining

female respondents. Through this paper, it has been observed that people regardless of their age use recommendation systems while shopping online. Fashion industry has change everyone's life and made it easier. This study focuses on how Fashion industry has changed because of Artificial Intelligence. There are cases on Artificial intelligence and the fashion industry but this study focuses on how it can be used as a recommendation system.

69. A Study on Consumer Insights for A Govt. Affiliated Ed-Tech Platform In India, Post Covid-19 Pandemic.

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The aim of this research is to find the scope and insights for an online education technology (ed-tech) platform with affiliation from Indian Government. To provide the same course degree as a traditional school in India. Primary data is collected by circulating a structured questionnaire with five point Likert scale questions through Google forms. Data is analyzed using percentage scores of responses. Reliability of the instrument is tested using Cronbach's alpha score. Analysis suggests that Government run online ed-tech platform is acceptable to the student's community in general. The research findings also state that students and parents are willing to receive degree education through use of Govt. ed-tech platform. However they are concerned about the poor socio-cultural life on online platform. This paper will be useful to the ed-tech companies to gain insights for a Govt. affiliated ed-tech platform and related product development in India.

70. The Analysis of Impact of Covid-19 on Retail Consumer Behavior and Business Models

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The objective of this paper is to understand the impact of Covid-19 on consumer spends upon various population groups and discover the weightage of parameters and expectations of the consumers. It will help provide insights to the retail sector,

allowing them to reset their customer experience based on their expectations and to retain the trust in their brands. Research Methodology: Primary research was done by collecting data through a survey questionnaire using online and offline methods. A structured questionnaire was administered to 200 consumers. Out of 200 people 200 responses were received. Data was analyzed using statistical techniques. Retail business has to prioritize understanding the changing customer habits to recalibrate and meet the changed circumstances driven by COVID-19 which will be shaping the future trends. The key concern for the retailers is to know, if the customers will return to their pre-pandemic habits or will the new normal continue to stay. This paper develops a measure for customer expectations based on their spending behavior post Covid-19 scenario incorporating various attributes to define the trend and enhance customer experience.

71. From Big Boxes to Handy Smartphones - A Study of Consumer Perception of Value in OTT Video Streaming Services

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This study analyses how a consumer perceives value in the streaming services in terms of features, content, price, etc. and what is the consumer's perception towards different streaming platforms currently available in India. A survey consumer survey of video streamers is conducted to understand usage pattern and analyzing consumer perception of video streaming services. Statistical analysis of repeated measures ANOVA, multiple response analysis and descriptive statistical analysis of the data is performed to extract the usage pattern. This study mainly focuses on; analyzing the consumer perception of the popular video streaming platforms available in Indian with respect to 6 parameters namely quantity of content, quality of content, user interface, recommendations, value for money, and audio & video quality; and examining what features and attributes attract consumers towards the video streaming services. This research shows that there is no significant difference in the ratings of YouTube and Netflix. Considering that Netflix is heavily charged and YouTube is free, Netflix is performing much better than any other service provider. This research could be used by organizations to understand OTT video streaming industry in India.

72. Analysis of the Impact of Reliance Jio Infocomm Ltd on Indian Economy: A Case Study

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Introduction of Reliance Jio was a breakthrough step in the Indian Telecom Sector because of predatory pricing which disrupted the existing telecom operators' business. It resulted in a major market consolidation in the sector with almost fifteen operators exiting the market and resulting in only four major operators in the country. In the last three years, the internet subscriber base of the country has grown from 250 million to 550 million and R Jio plays a very important role in this rise. The investments in Reliance Jio from big enterprises around the world are also giving a boost to the economic growth of the country. The academic literature has cases on Reliance Jio, however there are no cases on the impact of Reliance Jio and its subsidiaries on the economic and technological growth of the country. This study focuses on various ways in which Reliance Jio has helped in the growth of the Indian economy.

73. A Study of Cybercrimes in India and the Need of Cyber Security in Indian Market Post Pandemic Era

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As COVID-19 reshapes social connections and changes our workplaces to increasingly digital environment, the threat landscape on the internet is also developing with new vulnerabilities rising. Regardless of whether it is a phony UPI handle that mugs monetary donations to the PM CARES Fund or Jamtara's phishing cottage Industry where fraudulent callers threaten to obtain private financial details on behalf of a bank, there is a colossal need for adequate cyber security in India. We have used secondary research methodology to do our quantitative analysis and the research is divided into two parts. First part shows the rise of cybercrimes in India and the types of cybercrimes from the period of 2016 to 2018. For the first part, Python and MS Excel is used for the analysis and the data used is been made publicly available by the National Crimes Record Bureau, which is the official portal of Government of India. The first part signifies whether there is really any need of cyber security in India or not. The second part describes the relationship between cybercrimes and cyber security, various cyber security aspects, and the need for cyber security in India's marketplace.

74. Online Travel Companies and Consumer Engagement in the Era of Artificial Intelligence

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Unlike past generations, the digital natives of a modern generation are remodeling the system through which new technologies are dispensed and democratized, to change how the next generation benefits the merits of developing technologies quickly, and it offers an inclusive space. AI is disrupting many industries including the travel industry. AI analyses the searching patterns of the consumer and then accurately examines these patterns to forecast consumer requirements. Based on these predictions, AI technology facilitates the travel companies to offer relevant suggestions to its consumers making it accelerated than ever before to organize a trip. Companies are seeking customer engagement with their brands. This paper addresses the Customer engagement process in online travel companies and suggests the use of AI technology to enhance the user experience and further increase customer engagement and retention.

75. Dark Analytics - Understanding its Potential, Advantages and Risks

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This paper aims to find out the nature and relevance of dark analytics, consider its potential and possible meaning, its benefits, the dangers inherent with working with dark data and the potential of dark analytics. It uses in-depth analysis of secondary data. This is done through analysis of data from research papers, using perception of experts of the industry and by use of company released reports on dark data and dark analytics. Some of the major inferences of this research paper are the reasons behind the rapid increase in amount of dark data, the shift of focus and the rising importance of dark analytics, the important sources of dark analytics including the analysis of dark data gathered from non-conventional unstructured data sources, IoT devices and deep web, management of data in dark analytics and the issues with implementation of dark analytics with respect to infrastructure and legal challenges. This study gives insight into dark analytics and its advantages and its disadvantages, it also provides an insight on how a company can adopt the culture of dark analytics.

76. Block chain Crowdsourcing-Based Cyber security Framework For 5g IoT in Industry 4.0

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This paper presents Block chain Crowdsourcing-empowered 5G IoT as a backbone for network security of industry 4.0 in various applications. The paper examines this aspect by featuring block chain based crowdsourcing to detect and mitigate attacks. A structured literature search on the topic was conducted on various relevant bibliographic databases. 39 publications fulfilled the inclusion criteria. The study indicates that IoT devices in 5G ecosystems have serious security risk due to evolving threats and there are no proactive solutions. However, the best way to respond effectively is to work at the edge of the communication network using the density of IoT devices to obtain and analyze information, then taking corrective measures from the source of the threat. To the author's knowledge, this is the first study to apply the block chain based Crowdsourcing tool to mitigate cyber-attacks on 5G IoT networks for Industry 4.0. It has no single point of failure and caters to the increasing demand of cyber security workforce.

77. Impact Analysis of Customer Experience and Environmental Sustainability on Adoption of Electric Vehicles

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All conventional vehicles produce substantial life cycle emissions, whereas EVs typically produce fewer life cycle emissions because most emissions are lower for electricity generation than burning gasoline or diesel. The Key obstacle to a cleaner and more sustainable transportation is the low level of adoption of Electric Vehicles (EVs) by the customers. Customer acceptance can be enhanced by improving performance, ease of driving, and security instead of portraying it only as an environmentally friendly product. Vehicle connectivity and automation can also be adopted in EVs to enhance customer experience and can lead customer engagement. This research, therefore, is concentrated on developing a conceptual framework for better understanding of the influence of EV on customer experience, and how they are environmentally sustainable. The results of our analysis show that 72.93% of the Indian population strongly prioritizes Environmental concern as a critical factor when making a buying decision for an EV.

78. Covid-19 Pandemic - Cybercrimes vs. Cyber security

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The whole world as we know is experiencing the worst ever pandemic in the history of mankind. The novel Corona Virus i: e COVID-19 has shaken the world economy to its knee. With the rapid spread of the virus, lots of tech giant companies are busy workings with the Govt. to handle the situation. As most people are accessing confidential data through home routers, hackers are easily finding the loopholes to get to the systems and do mischief things. The paper tries to investigate the current scenario of COVID 19 and how it has become the catalyst for the cyber war between hackers and cyber security specialists. This paper will go through various ongoing use instances of cybercrime examining differences from the previous pandemics. It also aims at realizing the relevance for cyber security in the current context along with basic guidelines against cyber threats.

79. Preference of Mobile Platforms: A Study of iOS vs. Android

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The alteration of mobile devices and its utility has made a massive impact on economic development worldwide and with multiple mobile platforms that have emerged in recent years has always been an arguable topic. In a short span of a decade, the smartphone has become a ubiquitous part of our lives in predictable ways, and in ways that nobody saw coming. The supply of various mobile apps from the App Stores has created a massive market value for many businesses and individual app developers beyond the world. The industry peaked with the fast evolution of mobile devices and also gave rise to contemporary operating systems. The rapid development of technology in the Operating system has most affected the users. The outcome of the paper will give a better idea of a preferable platform for mobile devices and the result obtained by this paper can guide in designing and development of applications.

80. Big Data Driven Change Management: An Outlook during M&As

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For almost all business organizations change management is an inevitable process. It has been defined as a systematic approach to dealing with the transformation of the organization's goals, technologies, and processes. It is paramount for businesses to brace themselves at this phase of industry 4.0. Therefore, every organization should implement such strategies that provide ways to effectively carry on change management. It is sensible for organizations to structure their strategies on the basis of big data analytics in order to survive in the increasingly quantified business world. This revolution is moving in tandem with digital transformation and is said to be a challenge in the changing business landscape. In this paper, we will be investigating the manager's attitude by understanding their perception of Big Data and its analytics. This report will contain a summary of a survey conducted on managers from various industries that are adopting Big Data in their change management processes. Change management is an incessant process for any organization that can be effectively driven by big data. This way, managers can constructively materialize the benefits that big data brings with it and be able to stand upright in this wave of digitization.

81. Conceptual Framework for Use of Drones in Manufacturing Industry

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Apparently, the application of drones in industries has been increased, but still there is a lack of applications in manufacturing sector. "In this paper we study the current and expected applications of drones in manufacturing sector and oversee the opportunities and challenges involved, and propose a framework". This paper is qualitative in nature and the framework is derived based on the research papers in indexed journals, white papers and relevant material. "Drones represent an emerging technology and is an encouraging technology that is expected to be used in several applications in manufacturing in the next few years. This paper proposes a typology i.e. (see, sense, transform and move) of drone applications in manufacturing, explains the

opportunities which can be used by AMTs". "The application of drones in manufacturing is in early stage of development, but is foreseen to grow more over the next decade. This paper presents the analysis of potential applications of drones in manufacturing".

82. Market Estimation of Cloud Migration Services and its Security Measures

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Cloud computing is a new emerging computing the model which comes from grid computing, distributed computing, parallel computing, virtualization technology, utility computing, and another computer technologies and it has more advantage characters, for example, enormous scope calculation and information stockpiling, virtualization, high availability, high dependability and low-value administration are given to the customer as a help. It projects a unique way to architect and remotely manages to compute resources having limited management efforts and service provider interaction. The purpose of the study looks upon different sectors in the market that are moving into cloud migration services because of its highly scalable and agile advantages and also region-wise analysis of cloud technology adoption. The impact of pandemic COVID-19 is discussed over Cloud services both positive and negative. Also, the study focuses on the security issues related to cloud migration services and discusses the preventive measures related to data theft, and encryption.

83. Personalization and Privacy in IoT: A Consumer-Business Challenge

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The need for personalization as well as the need for the right to be forgotten, puts business in deep waters. The focus of this paper is on personalization privacy of Internet of Things home devices. IoT has vast potential for marketing due to the number of connected devices and the immense amount of data that flows through it. Each device collecting distinct information about each individual connected to it and the

ability to link with other devices and share the information makes it an ideal platform for marketing. With the constant requirement of the customers, business are having trouble keeping balance between privacy and personalization. The customers wish control and security over their data. Keeping their trust is of utmost importance. With the shaping of new data policies and regulations in different countries, businesses need to be careful about the collection, usage and storage of these specific data. The paper briefly discusses personalization in IoT home devices and privacy challenges. Afterwards it suggests guidelines and approaches for business to ensure the trust of consumers and to overcome the personalization-privacy paradox, keeping in mind the recent government policies for tighter data control like GDPR.

84. Unbolting The Power of Predictive Analytics in Sales and Operation Planning for Pharmaceutical and FMCG industries

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Sales and operation planning is the field of management where sales emphasize on organization's marketing mix like dealing with sales strategies, product pricing and promotion activities. It is the coordination of people and resources of an organization to attain a desired goal. On the other hand, operations deals with the day to day operations which involve planning, organizing and supervising in the process of production, manufacturing and services of any business organizations. To sum it up, Sales and operation planning is the process of coordinating with different areas of the business to meet customer demand with the suitable level of supply. Sales and Operation Planning is a designed blueprint to help manufacturers balance supply and demands for their products. Its workflow begin with executive management followed by sales, Finance, manufacturing and functional groups. The result from each level is monitored and accordingly forecast is revised based on requirements and the policies. Pharmaceuticals and FMCG companies used to manage Sales and operation planning work in silos. Here each department of an organization has its own objectives, goals, processes and technologies. Presently, this tedious task can be well handled by ANALYTICS, by monitoring, analyzing and segregating data and improving its growth, effectiveness and efficiency.

85. Implementation and Sentiment Analysis of Artificial Intelligence in Healthcare Industry

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The implementation of Artificial Intelligence and Information Technology is taking a quantum leap in every industry. In recent years there has been an intensified focus on the utilization of Artificial Intelligence in different areas to take care of the complex issue. The same goes for the healthcare services industry. With the increase in complexity and rise of data in medical industry adaptation of Artificial Intelligence is growing at a rapid pace, it is bringing a paradigm shift to healthcare. The use of AI can enhance patient engagement and also through prediction it can help the hospitals better resource allocation. Although there are lots of opportunities for Artificial Intelligence in the health care sector but currently there are limited examples of such techniques being successfully deployed. This study aims to understand the consumer behavior towards the adaptation of Artificial Intelligence in Health Care. The final outcome will provide the sentiment analysis through which will understand whether AI has a positive or negative impact in the health care domain.

86. Virtual Network Operators – Enabler for Digital Revolution in Rural India

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Several studies have been previously conducted in the field of virtual network operators, understanding the regulations for these operators, business models that can be applied, types of business models for these operators. This research paper examines the emergence of virtual network operators in the telecommunication business and how it can be used as an enabler for providing digital connectivity to the rural parts of India. Due to various government initiatives like Digital India, Rural Internet mission, and 100 smart city projects, the need for digital connectivity has become mandatory. With the present telecom operators already facing challenges to build a viable business model due to the high spectrum prices, infrastructure cost, fiber rollout cost that makes it difficult for the present operators to provide connectivity to the rural parts of the country. As a case study analysis, various examples of MVNO are

taken into consideration to get a better understanding of how this market can be used as an enabler without being a competition to the network operators.

87. Introduction of Augmented Reality and Virtual Reality in the Growing Education Sector: A Review

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Technology has been growing fast and influencing different aspects of life such as healthcare, entertainment, and many other fields. Education is the base for a flourishing society, and the transfer of knowledge has been a top preference for civilization since the very beginning. The education sector is using technology like smart teaching using video lectures, distance learning, and other technology. Reality technology has capabilities to make good engagement with a learner using advanced graphics and interactive videos. This 3-dimensional world of education is effectively changing the traditional teaching method. These reality technologies use combining the physical and virtual worlds. Using advanced technology anybody can learn anything using the internet, for better engagement augmented and virtual reality will help lots of learners. This article will provide information about the implementation of reality technology in the Ed-tech industry and comparison analysis of different Ed-tech platforms which are currently providing a reality technology.

88. Study of the Competition in Indian Telecom Industry: A 20-year period with Airtel as the Case Company

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Bharti Airtel Limited, one of the leading global Telco's has its presence in 17 Asian & African countries and operates in 50 countries and 5 continents. It has a global network running across 2, 50,000 RKM's. The Indian telecom sector is going through a financial crisis, but Airtel has been able to survive the test of time and has managed to retain its hold in the telecom sector. In India, it is a converged player offering wireless & wire line broadband, m-commerce, DTH services and enterprise services that includes

the national and international long-distance services. Through this paper, we present evolution of the Indian telecom sector and competitive landscape for a 20 year period through the study of Airtel as a case. Through this paper, we present the response of Airtel as an organization to scenarios of hyper competition, technology up-gradation, and price-based penetration strategy adopted by competition.

89. Competition in Indian Telecom Industry: Case Study Approach with Airtel

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With data infrastructure becoming critical in a connected world, the telecommunications sector is proving to be a core and essential infrastructure service provider to national economies, globally. Currently, India has a subscriber base of 1.2 bn and is the world's 2 largest telecommunications market. The decline in data costs and the rise in mobile-phone penetration in India will create opportunities for new businesses in the coming years. Having considered all this, the paper primarily focuses on how Bharti Airtel is coping up with the challenges and threats that they face and how it is using its core strengths to compete with their peer Telcos. Through this paper we propose a conceptual framework that attempts to analyze the competition in the Indian Telecom Industry. It aims to study how Airtel in specifically is responding to the competitive forces coming from other Telcos

90. Intelligent Interaction via Chat bots transcending the Current Constructs

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To study the chatbots' effectiveness in transforming the current business constructs. A comparative study of five chatbots in different domains based on the detailed dialogue flows and instant messenger interface with users. The study provides rating to the selected five chatbots as per their efficacy in interacting with the users. The study would be useful for the business owners of the different domains discussed regarding

their investments in chatbots as a cost-effective tool for better customer experience leading to better sales and thereby increased revenues of their business. It would assist chatbot developers for the design factors to be considered while constructing chatbots. It would help future researchers to propose strategies and frameworks to increase customer engagement through chatbots. It would also supply academics with a foundation for further theory building processes regarding chatbot design and engineering.

91. Healthcare Analytics: Scope and Trends

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Healthcare industry is excessively dependent on huge amounts of unstructured and structured data leading to increased utilization of data mining and analysis techniques. Even when the world is fighting with pandemics like Coronavirus, the healthcare quality provided by various hospitals is a major concern making it necessary to streamline the process with trending technologies and algorithms. This descriptive research focuses on the contemporary scenario and the future scope of analytics in this field. It includes analysis of the current technologies like Big data, predictive and prescriptive analytics for narrowing down the process of data usage. The data is based upon patients' demographics, history, insurance, payment and therefore can be visualized efficiently by optimizing Data collection, requirement gathering, and feedback-based improvement techniques. The paper examines the scope of advanced decision-making done by using various available technologies like electronic health records and cloud computing. Its objective is to reduce the time of data analysis, with increasing the cost-effectiveness in order to benefit the Healthcare field, thereby simplifying the medical care process for institutions as well as for common people. This study concludes with a comparative position of a few applications in the related function available in the market.

92. Assessing and Modelling Digital Risks in Pharmaceutical Industry

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Companies across all sectors, including Pharmaceutical, are progressively making a shift to a more technology-based work. Work from Home had challenges but the businesses have been able to cope with this shift, with some companies like TCS claiming that by 2025, 75% of the workforce would be working from home. While businesses are adapting to this new work style, the need for managing risk that is associated with it is also growing. Digital and technology transformation have various risks attached to it and managing them is crucial. Digital risk is any risk that is caused when a business goes Digital. Each industry faces potential risks and identifying these risks and working towards securing it, is important. Businesses can face data loss, theft of critical data, privacy breaches due to digital shifts in the business. Businesses can face risks related to automation of businesses, and compliance. This study focuses on a detailed qualitative analysis of perspectives and experiences of the subject matter experts working in the pharmaceutical industry and coding the data to generate detailed inferences and conclusions from the codes.

93. Telecommunication Fraud and Framework to Mitigate it

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To highlight the pervasiveness of telecom fraud and how it affects the telecommunications network and its subscribers. In this paper, a framework will be developed for the understanding of telecom fraud. This framework can be then used to indicate the possible avenues for combating existing fraud. This paper draws on secondary sources of data and available literature on telecom fraud and financial crime. The study adopts the case study approach wherein various use cases of the telecom sector have been analyzed. This paper presents the big picture of the issue in the context of telecom fraud and the different challenges associated with it. The findings indicate that elements of fraud risk not only have an adverse effect on revenue of Telco's but also affects the incident of telecom fraud.

94. Potential of Short Videos in E-commerce in India

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In the context of the rapid development of online shopping, enterprises, consumers realized the importance of an efficient online short display screen. However, academics rarely explored the content of a brief display screen and its impacts on consumers' perceptions. This paper discusses the impact of this display form on consumer's perceived quality via experiments based on the existing literature and reports. The results reveal that the short display screen makes consumers have a better perceived quality compared with the long display screen. Compared with a static image that only includes an overall view of the product, a video that provides both an overall view and the details of the product makes consumers have a higher perceived quality.

95. Cyber security – Vulnerability Assessment of Attacks, Challenges and Defense Strategies in Industry 4.0 Ecosystem

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Technology along with its uses has increased the interconnected digital ecosystem. It also has heavy usage of data. When the data is in digital form, it is threatened by various cyber-attacks, which increases the need for cyber-security. Industry 4.0 has data as its basic fuel, therefore the vulnerability towards cyber-attacks increases in industry 4.0. In this study, we have identified various risks in the ecosystem of industry 4.0. Most evident vulnerabilities for cyber-security have been determined in control systems protocols, unable to manage network devices effectively, neglect of periodic infiltration tests, unprotected connections, and untrained personnel. In this study, these vulnerabilities are identified and cyber defense strategies are determined. The corporate and end-users are guided to implement preventions at the same time. The various vulnerabilities identified and their prevention will ensure that the damage from these vulnerabilities is minimal.

96. Impact, Capabilities, and Credibility of Video Assistant Referee in Football/ Soccer

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The penetration of technology & media advances into football has improved referees' choices on contestable objectives. This paper analyzes the reception of Video Assistant Referees (VAR) and Goal Line Technology (GLT) and how the understanding of the correspondence between arbitrators influences the result of the games. In this study, we take a few examples of use cases where VAR has given major yet confusing decisions that affected the outcome of the match in a drastic way. This investigation is planned for investigating the informative frame of reference for off-field and on-field referees. Therefore, this exploration attempts to build up whether the dissemination of computerized media innovation into football administering has to ban human mistakes and goofs imagined in the period of simple pitch and officials, subsequently setting the glue for negligible blunders in the present day period of advanced and digital officiating.

97. Digital Transformation and Cyber Disruption in the Oil and Gas Industry

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Digital transformation of Oil and Gas sector includes various types of technological changes in the industry and with these changes, various type of cyber threats also comes into the picture which is becoming a more serious concern for this industry. All the Industries are at the cusp of digital transformation, Oil and Gas sector is a very crucial sector, any potential damage by cyber threats will result in fall in market prices of oil severely. This sector is behind many other industries in terms of digital transformation and cyber security. Proper mapping of digitization of Upstream, Midstream and downstream services with its cyber vulnerabilities is required. The study focuses on the digital transformation and the cyber security of the Oil and Gas Industry. The research methodology for this research is qualitative research, the study has been done by taking consideration of various peer-reviewed literature in the area of digital transformation and cyber security in the oil and gas sector. After analyzing

several research papers on cyber security, main cyber security threats have been identified and the framework has been proposed to mitigate the cyber risks

98. Security Threats and Proposed Containment Solution for Block chain: Assessment Using Cases

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Block chain is a time-stamped series of immutable records of data that is not controlled by any single body. Since, the advent of Bit coin, block chain has found application in various industries such as healthcare, music, real estate, Fintech, logistics, and others. The fact that block chain ensures more dependable and convenient services is critical to consider the privacy and security risks related to this technology. Block chain has been exposed continuously to security issues and considerable losses have been caused due to cyber-attacks on it. In this paper, we adopt a case study-based approach discussing the use cases of block chain threats, its impact, and solutions and also review the security enhancement solutions. The data for this study has been collected from various secondary collections and a mitigation matrix has been created to show the types of cases. Even though there are a few studies done on the protection and privacy of block chain, there is an absence of proper examination on the security of the block chain. This research will help managers to adopt a new approach to understand and adapt to emerging risks related to block chain and develop the necessary risk mitigation strategy for an organization.

99. Block chain in The Stock Market: Assessment of Drawbacks in the Trading Process and Proposed Solution for the Trading Process Using Block chain

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Indian stock market consists of delays in days, for transactions, due to intermediaries, clearance, and regulations. Blockchain implementation solution proposed as a hybrid Blockchain model tweaked to defeat the inadequacies of the current system in the

Indian trade and to build an efficient system. The study proposes that the utilization of such Blockchain can bring numerous advantages that different innovations as of now being utilized can't offer. Peer to peer exchange and consensus mechanism that is in place to validate transactions are the blockchain processes that can massively affect the current trading process. Due to the use of blockchain, there will be a reduction in transaction costs with increased transparency and increased pace in the clearing and settlement process which will probably draw in new ventures and increase liquidity in the system.

100. Digital India Transformation: Moving India Forward

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Digital India is the Government of India initiated program where it aims at transforming India into a digitally empowered India. The program focuses on providing governance and services on demand, creating countrywide digital infrastructure, & digitally empowering citizens. This paper reflects a research attempt to understand the Digital India program and its possible impact on making India digitally ready. The paper explores various initiatives, opportunities, and challenges associated with the 9 pillars of Digital India which are Jobs in IT, Production of Electronics, Information to all, Early Harvest Programme, Broadband connections, eKranti, E-Governance, Public Internet Access and Universal Access to Phones. Where each of these projects seems to be helping and providing benefits to the people of India. Still, there are some challenges that the citizens are facing. To name some -illiteracy, socio-economic differences, technical & cultural constraints. This paper attempts to describe and discuss the journey of making India a Digital India as well as the issues and challenges faced along with possible future aspects. The research methodology is in the area of digital systems that are transforming India. It is a concept paper and a descriptive study of literature from reliable sources and reports.

101. Social Media Sentiment Analysis for Monitoring Online Presence of Cosmetic Brands

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Technological evolution has recognized the potential of online social media channels in building strong brand reputation. Companies are leveraging analytical methods like Sentiment analysis to monitor the brand reputation. With an increase in digitalization, E-commerce has become the need of the hour and has compelled many industries to go digital. Cosmetic Industry being one, rightly leveraging the use of digital technologies to tailor its products based on consumer's demands. The objective of the paper is to study the consumer's reviews and feedback on the cosmetic brand over different social media platforms and further analyzing the impact of positive, negative, or neutral sentiments over brand reputation using sentiment analysis. This study is based on an Indian cosmetic brand, Nykaa. Three diverse social media platforms are utilized for data collection and gain insight on customer reviews by conducting sentimental analysis on the user-generated reviews thereby, further concluding the impact over brand reputation.

102. Strategic Implementation of Information System (Is) to Create Business Value –A Case Study on Air Asia

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In the past decade, there has been a lot of emphasis on information collection, storage, and distribution processes within an organization. However, the creation of business value through the adoption of information system strategies has been questionable and a major topic for research. The objective of this research paper is to critically analyse how Air Asia, a leading low fare airline, has been strategically implementing Information System (IS) to produce business values. The paper involves a qualitative analysis of secondary research data gathered from different sources and assessing it to meet the research objective. The analysis of the secondary research is based on four elements, Information System implementation methods, various information systems implemented at Air Asia, business values created through these systems, and creation of competitive advantage for the firm. This study will help managers gain insight as to how an efficient IS when strategically implemented can create competitive edge.

103. Sentiment Analysis to Evaluate Influencer Marketing: Exploring To Identify the Parameters of Influence

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Influencer marketing on social media is trending and penetrating very well. The major challenge is the Influencer Marketing campaigns are very hard to measure and may have serious consequences. Sentiment Analysis can be used to evaluate such Influencer Marketing campaigns and help brands to take informed decisions. The purpose of the research is to evaluate the effectiveness of an influencer creating or boosting intangible assets like and take actionable insights for brands to choose the right influencer for its products. This study identifying the right parameters of influencer marketing through sentiment analysis. During the process the study also highlights the opportunities and challenges it possess. Research study is conceptual in nature. The researcher used secondary data from authentic secondary sources and conceptually demonstrating to analyse and draw conclusions. We will be able to use sentiment score to evaluate such intangible assets and make the right actionable decision. The research will have significant use for Marketing Managers to make sound decision regarding marketing campaigns and brand image. It will also be useful for influencers in order to keep themselves connected and relevant to their audience by knowing the effects of influencer's activities on emotional scale.

104. Using Digital Twin Technology for Performance Evaluation: Simulating Tests Virtually Before Implementing Smart City Projects

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Smart City is an evolving concept to increase the operational efficiency of different services in cities. A major hindrance to the implementation of Smart cities is its complex nature and numerous other factors. In Digital Twin technology, connecting virtual and physical entities enables data and monitoring of systems to head off problems before they even occur using simulation techniques. The researcher proposes a Digital twin-based simulation approach, virtual trails before 'Physical Infrastructure' is executed as a pillar of a Smart city. A comparative analysis of an existing approach versus simulation proposed approach for effective implementation and benefits with the quantum of advantages achieved. The simulation scope in implementing smart cities is focused on micro-level.

105. Sentiment Analysis and Opinion Mining: Analysis on E-Commerce and Software Industries

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Sentiment Analysis and Opinion mining helps to analyze data which is generally found in the form of text or speech which is used to classify human sentiments, views, emotions, and opinions on a particular product that is in the current industry. In this paper, we are focusing on how customer reviews of products for the e-commerce industry and software industry and other industries also benefits their sales and also we will be showing the past, present and the future knowledge about the awareness of sentiment analysis and opinion mining. Analyzing Ecommerce web portal's data and software's data will help online retailers and the company owners to get a better view of customer expectations which would provide better shopping experience and the best possible ways to increases their sales. These findings would show the need for the e-commerce industry and software industry the benefits and importance of the sentiment analysis as well as opinion mining.

106. Digital Natives: The Future Workforce

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Digital Natives · are persons very familiar with mobile devices. Computers and the internet as they grew up with digital technology. This paper studies 'digital natives as the workforce of the future. It studies the impact that this generation of digital natives will have on future businesses undergoing digital transformation. It discusses opportunities and obstacles for digital natives. The study analyzes and discusses the impact of digital natives on five key business areas - business profitability, recruitment procedures, employee satisfaction, Training/skill development, and customer satisfaction. Learning's from all these parameters is then combined to suggest the best possible 1vay to make these digital natives suitable for digital economy jobs anti help them to achieve digital success in this digital age. It further analyses digital natives to propose a road map to digitally transforming businesses, for gainfully leveraging this workforce.

107. Future Contracts: Smart Contracts

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Contract management has always been a classic task for companies. The management of vendor to the remittance handling goes in a cycle and it requires constant monitoring and risk assessment. The vendor related frauds account for a huge amount of money and it is expected that the fraud detection and prevention market is expected to reach 63.5 billion USD world wide by 2023 with a CAGR of 26.6%. Hence companies are looking for a unified solution that can track the phases in a traditional contract lifecycle so the escrow charges can be reduced and a centralized monitoring is possible. In this paper we have presented how a traditional contract life cycle happens, comparison between traditional contract and smart contract, how a smart contract functions and its underlying technology. We have also presented the current business challenges in the implementation of smart contracts and what is the future scope and further applications.

108. A Study of the Factors Affecting Readiness of Indian Customers to Use Self-Driving Vehicles

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This study tries to explore the different challenges which might affect the Indian Customer's Readiness to use Self Driving Vehicles. Data collection was done by online survey. A planned questionnaire was circulated among different age groups of people. Out of 300 people 237 responses were received. Data was analysed using techniques such as exploratory factor and regression analysis. The conceptual model was tested using statistical analysis which showcased that Traffic Conditions and Infrastructure, System Reliability & Cybersecurity, Expectancy and Cost Issues significantly impact the readiness of customers to use Self Driving Vehicles. This paper assumes that both Internet of Things (IoT) and Artificial Intelligence (AI) are important for various activities and are unavoidable. The conceptual model proposed in the paper will be useful to the city planners, transportation sector as well as the Government to understand the factors which they need to consider for motivating consumers to adopt such vehicles.

109. Natural Language Processing (NLP) & its Impact across Industries – Unlocking the True Potential of Digital Healthcare (A Case Study Approach)

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The dawn of the 21st Century has brought in a wave of technological developments and advancements. Natural Language Processing or NLP is one of the promising fields among them and has gained a lot of traction with ground-breaking discoveries across most computing platforms. Due to the digital revolution, there has been a significant increase in volumes of data generated from man-to-machine (M2M) communications across devices and platforms like Amazon Alexa, Apple Siri, Microsoft Cortana, etc. This causes the generation of a huge amount of unstructured data that doesn't fit into the conventional computational models. Moreover, increased challenges of linguistic intricacy, data variability's, and speech ambiguity make it even tougher to implement processing models. The objective of this paper is to understand and realize the potential and scope of the NLP market and its adoption across industries to improvise business especially post Covid-19. This study provides a macroscopic view of advancement in research, development and application areas of Natural Language Processing. A case study-based approach has been adopted for this research wherein various use-cases of NLP implementation across industries like Automotive, BFSI, Retail and Healthcare etc. along with various segments of an enterprise like Human Resources, Recruitment, Marketing, advertisement and R&D (Research and Development) etc were explored. A deep dive in Healthcare industry is done to predict the NLP applications post Covid-19 scenario. A high-level overview of Natural Language Programming (NLP) was done based on its underlying technology stack, its applications based on industry and within enterprises as well. A case study on the application of NLP on the Healthcare Industry was discussed in detail while also addressing the current challenges it faces and the road ahead. Interestingly, even with so many challenges, we see that there has been a continuous increase in the number of approaches by NLP like sentiment analysis, pragmatic analysis, AI-enabled chatbots, neural machine translation, and clinical decision support in healthcare, etc. to solve issues and key concerns across industries. Companies like Semantic Machines, Cortical.io, Mobvoi, etc. have enhanced their platforms manifold by finding new avenues in the field of market intelligence, semantic footprints, and linguistics. The study will be useful for researchers, emerging enterprises, academicians who would be looking to upskill their expertise and facilitate them to innovate and experiment the business impact created by NLP.

110. Strategies for Work, Workplace and Workforce after Covid-19

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We are into a new world after Covid-19, which will create a digital with virtual working space will be on the internet and workplace will be our house. The workforce is aligned with the digital platform which is connected to the cloud. We are likely to take an outlook over the sustainable changes and also look into the options of the changes in our working style. We will have to see how the change in technology, individual and the business with respect to post COVID 19. In this situation whether we have a good quality of job or not with this upgrade in the uses of technology which will ensure the job quality for all. In this paper we have discussed about these new abrupt changes, new technology and the future of work to be accepted as a world of work and how the future of work will be getting into the automation world with the various key skills to operate that automation in the near future.

111. Changing Consumer Behaviour towards Carbonated Beverages during Covid-19 in India

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This research is aimed at examining the change in behaviour among the Indian consumers towards carbonated beverages during the Covid-19 pandemic. A questionnaire was prepared to collect data from 108 Indian respondents belonging to various demographics through convenience sampling. Various websites, journals, newspapers and magazines were referred for collecting secondary data. SPSS was used to study the data through Factor Analysis, Logistic Regression and Cross-Tabulation Analysis. Detail study has been done on demographic profile, consumption patterns of carbonated beverages including frequency of consumption, preference of brands and frequency of consumption after the widespread of Covid-19. Various factors were found that can encourage consumption of more carbonated beverages during the Covid-19. We have discussed the factors that were encouraging the consumers to consume carbonated beverages during the Covid-19.

112. Wi-Fi 6, 6e: A Leap to a Paradigm Shift

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In today's digital ecosystem, delivering proper network connection and performance has become a business-critical requirement. Employees across various sectors rely majorly on wireless connection for work - the absence of which may result in poor satisfaction, can influence to enter an establishment, or leave. Wi-Fi Alliance and IEEE have together worked and introduced the new standards Wi-Fi 6, 6e. Very few studies have implemented this technology in various industries. Wi-Fi is just about to get faster with newer speed, better performance, and high reliability. This study is undertaken with the objective of presenting a comprehensive view of new wireless standards and its application in diverse sectors and how the diverse sectors will incorporate this paradigm shift using these standards. A narrative literature review-based approach has been adopted for this study and literature from various databases has been analyzed.

113. Unveiling The Success behind Tesla's Digital Marketing Strategy

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Tesla is an American Automobile company founded in 2003 and has been an ever growing brand in terms of its revenues and sales since its early days of inception in the market. The entire marketing strategy of Tesla is done digitally and very less or almost negligible amount is spent on traditional marketing methods. The entire promotion of the brand and its various products is done through the various online social media platforms like Facebook, Twitter, Instagram and You Tube. In fact, 70% of the company's sales are done online. There are significant differences in the designing and the availability of the retail outlets as compared to the other big brands in the industry. This paper presents a detailed study of unique and innovative marketing strategies of Tesla for making its presence in the market.

114. Blockchain Technology: Challenges and Opportunities in the World of Indirect Taxes

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Blockchain Technology revolutionize the market of digitization. Blockchain technology has also emerged as a solution in case of indirect taxes also. This technology can transform the tax regime and can contribute majorly to digital India. In GST a registered firm has to file 37 returns during a year, this technology will reduce this burden off the vendors as all the transactions are recorded in real time in block chain , which removes the need of filing any return. Transparency of system will remove all the loopholes from the system and tax evasion will also become impossible which will ultimately lead to reduction in frauds and a tampered proof system. Blockchain has brought a lot of excitement and this technology has shown its potential to transform business. But what this technology could do for the world of indirect tax? This paper will look at the challenges and opportunities that lies ahead for government in the world of indirect taxes.

115. Building a Content Recommendation Framework for Personalizing Streaming Experience Using Sentiment Analysis

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The success in the OTT (Over-the-top) industry depends on two important factors i.e. User engagement and subscriber's satisfaction percentage. The objective of this research is to propose a content recommendation framework that will help OTT players in personalizing the streaming experience and identify what content they should stream for more viewership. The secondary data is collected from Twitter, Facebook, websites, etc. Observational analysis approach was followed, and sentiment analysis was used to analyze text conversations and evaluates the tone, intent, and emotion behind messages. Tools used to run Sentiment Analysis: Anaconda (Jupyter Notebook), Python, Excel is used to find the correlation. This framework will help companies that offer online streaming services to get an insight into consumer preference of content and provide a tailored streaming experience. The framework will not only be useful to video streaming services but also news, music streaming apps to increase their profitability and meet business objectives.

116. Impact of Cyber-Attacks on Banking Institutions in India: A Study of Safety Mechanisms

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This research paper aims at studying the catastrophic impact of cybercrime on banking institutions, cyber security measures attempted to curb its effect and development of a robust cyber security mechanism. In recent years banks are its direct victim. In India, a number of banks generally fall prey to the massive malware attacks; it not only leaks valuable and sensitive information but also causes heavy financial losses. The objective of this study is to identify the business areas which are more susceptible to cyberattacks and to ensure customization and development of cyber security protocol. The study involves secondary data analysis from various web resources such as government websites, articles, and research papers available; it also includes case study analysis of different cyber threats and crimes that caused huge financial loss in the past. This paper will provide insights on cyber regime which will benefit banks, financial institutions, and society at large.

117. Industrial IoT – From Visibility to Efficiency

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Industrial Internet of Things which was a buzzword earlier has risen to prominence in recent years. Enterprises are now realizing Industrial Internet of Things (IIOT) as a value driver in connecting physical and digital worlds to improve visibility, enhance mobility, drive operational efficiencies, and improve customer experience. In this respect OEE (Overall Equipment Efficiency) plays a major factor in understanding how efficiently a machine is working with respect to the reference or benchmark set by the organization. The purpose of the research is to understand how IIOT services have helped to increase Overall Equipment Efficiency (OEE), performance and discover related hidden costs to save Opex with the help of a case study of an irrigation product manufacturing company through downtime and performance analysis methods. A case study approach has been utilized for this study and downtime Analysis, Rejection Analysis and Performance Analysis has been incorporated for analysis.

118. IT Service Management Driving Digital Transformation in Telecommunication Industry

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Digital transformation offers many opportunities, with organizations using it to enhance their customer services, optimize their internal operations and innovate their future to a sustainable future. However, operating multiple, non-integrated IT tools for digital transformation creates info silos. With disparate information processes and excessive amounts of your time and cash spent on firefighting, restricted resources are left to make delightful user experiences. The tactic presented during this paper is predicated on the TOGAF, Version 9.1 framework and it's Architecture Development Methodology (ADM). IT service management (ITSM) and customer service management (CSM) as a foundation will consolidate IT tools into one data model to remodel the service expertise which in turn helps enterprise architects in automating workflows, gain live visibility, and improve IT efficiency. To know the paradigm shift in ITSM and CSM, a case study approach has been followed. This research is going to be useful for practitioners within the field of ITSM and CSM, companies.

119. Healthcare Consumer Behaviour: The Impact of Digital Transformation of Healthcare on Consumer

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HHealthcare consumer behaviour is influenced by cumulative impact of internal/ external factors. Individual considerations, and interplay amongst determinants, are both crucial. Today, customers demand more information, greater options and real time interactions. Customer engagement has become crucial. Digital Transformation with emerging technologies like AI, Blockchain, and Telemedicine etc. helps physicians, optimizes systems, improves patient experience and reduces human errors. This paper discusses factors influencing healthcare consumers' behaviour and provides insights on use of digital technologies to enhance consumer experience. Qualitative method is used by engaging a closed consumer group in discussion, and through in-depth interviews. The analysis provides an insight into the behaviour of healthcare consumers. The study finds that the new breed of consumers is well informed about

digital readiness of healthcare providers. The factors influencing consumers to select healthcare providers include digital readiness of the healthcare provider, good customer experience, word of mouth and brand image.

120. A Study on the Concept of Bundling and the Impact of Handset Leasing on Telecom Operators

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This paper details on bundling concept widely used in the telecom industry and a study on the concept of handset leasing used by different mobile operators. Handset leasing is a new approach in the telecom industry where customers have an option to upgrade to a new phone usually after a year. The study analyzes and discusses the impact of handset leasing on mobile operators concerning the developed countries. The research paper takes note of different leasing models derived by Telecom Operators. The paper further talks about the use cases of lease program used by various industries and aims to get insights on whether a lease program would be beneficial or detrimental for the telcos. A case analysis approach has been taken up for this research paper where different utilized cases in the leasing business have been analyzed. Along with that in-depth Interviews with different industry experts has been conducted to provide the research a better depth, the information for this investigation has been gathered through different white papers. Previously made reports, database, and articles, and was then analyzed to come up, with a conceptual model.

121. Electronic Voting Research Papers in Web of Science: A Bibliometric Analysis

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The main aim of the paper is to investigate and recognize trends in Electronic Voting research at an international level. Design/methodology/approach - Retrieval of the data was from the database of Web of Science on the topic Electronic Voting that covered the period from 1988- 2020 to identify useful contributions that have

been produced and published in the respective field. A total of 994 data records were retrieved from the database. Several trends predominating in Digital Voting research including well known contributing countries, adopted patterns of the authorship, the degree of co-authorship, cross-country co-authorship, prominent sources for research publication, recognition of research in course of citation trends like average citation per year, top-cited papers, citations received/citations per paper, etc. were discovered by analysis of the data. Findings—There have been constructive growth in the literature since 1988 as revealed by the analysis. As evident from the analysis, half of the research output was contributed by the five countries – USA, England, China, Spain, and Germany with a total of 491 journals published. When it comes to the effectiveness of the papers, Denmark leads with a PEI of 4.87. It is followed by Canada with PEI of 4.60 and Scotland with PEI of 2.80. Most of the journals belong to Computers Science and Political Science categories of Web of Science. Also, the number of times these papers are cited per year is increasing rapidly for the given duration. This shows there is an increase in research in the field of Digital Voting. COVID-19 pandemic can be made accountable for the irregularity in the trend in 2020 that has halted the research in the field. On performing linear regression, it was observed that we can expect positive growth in the number of citations in the coming years.

122. Artificial Intelligence in Cyber Security – A Threat or a Solution

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The world today revolves around data. It is crucial to protect data from Cyber-attacks. Cyber security protects networks, programs and devices; but cyber threats increase every day. Traditional algorithms cannot combat them. Defensive strategies used by professionals are failing. This has led to use of Artificial Intelligence (AI) - to enhance cyber security. Today AI has become a part of human life. It is a representation of how humans think, react, learn and work. It can be used for speech recognition, intelligent robots, gaming etc.; but it can also be used for destructive purposes. A routine task performed using AI can be hacked, leading to task alteration or stealing of data. This study discusses application of artificial intelligence in cyber security, various possible solutions, and also potential threats. It also explores if these threats could be eliminated or mitigated.

123. Fog Computing in Healthcare

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The use of IoT in the healthcare sector has been increasing significantly with the use of wearable devices coupled with better internet access. Patient data monitoring and abnormality alerting with use of IoT helps reduce costs, decrease errors, and improve the overall patient experience. In certain scenarios, real-time analytics becomes essential to optimize healthcare which in some cases can also save lives. Fog Computing plays an important role here. It uses decentralized, local network architectures for faster analysis and retrieval of data near the source itself bringing the intelligence and processing closer to the creation of data. It is perfect for conditions requiring real-time monitoring as it can satisfy the response and latency needs for those services. Thus, this study aims to highlight the role of Fog Computing in the healthcare IoT systems and challenges in the designing and implementing fog computing systems.

124. Predictive Analytics in Healthcare

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Breast pathology is one of the most prevalent pathologies in routine practice. The malignant and benign lesions that can lead to morbidity and their masquerade as malignancy, which can be a significant public health threat or concern and the patients' plight. The high incidence of malignant breast cancer, its relatively simple early detection and effective preservative surgery and chemotherapy treatment. Because of this triple assessment involving a clinical, radiological and cytological examination, it started to be generally recognized. The field of healthcare nowadays is also determined by the quality of analysis done during diagnostic tests. It the correctness of the diagnostics tests that matter before treating a patient. Around 2.1 million women are affected each year by breast cancer alone. An estimate of death of around 627k women due to breast cancer in the year 2018. As per experts' belief, 31% of total breast cancer cases are misdiagnosed. If the analysis of the diagnostic tests is accurate, the patient can be treated for the ailment that he is suffering from and the medicine can be specific and precise too. Including analytics for even the smallest of the tests in healthcare would not only help doctors analyze the data from the relevant tests but also make an accurate diagnosis and in some cases prognosis for the ailment which the patient is suffering or might suffering in the near future.

125. Cyber security Threat Mitigation in Architectures for Industrial IoT

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The industrial IoT applications are rapidly growing and transforming the traditional industries to smart industries (industry 4.0) along with the impending consumer IoT adoption. It is therefore necessary to adapt and deploy a reliable cyber security software architecture. Due to the immense security challenges in IIoT, this paper tries to approach the concerns from an end-to-end IIoT solution security perspective. In this paper we discuss the current architectural framework and study how they can address the challenges like scalability, integration problem, data privacy and security and how the framework improves the security in the IIoT environment and reduce cost. With respect to the aspect of cost, we highlight the factors and specific costs in developing an IoT application. This paper also explains the security requirements, practices and types of attacks on the IOT architecture. Here, we highlight the critical problems (threats/attacks/vulnerabilities) and their detection, prevention and mitigation techniques. The authors aim is to prepare a study of existing protocols, frameworks and architectures currently proposed in active research based on various parameters as also to review the existing technology and project requirements in IIoT to understand both technology and stakeholder impact over IIoT security.

126. Text Mining and Text Analytics of Research Articles

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There has recently been a tremendous increase in published articles and research papers. Such documents are stored in electronic format, but the data is semi-structured or unstructured. The analysis of the patterns and trends is an enormous task. Text mining is therefore extensively researched today. Text Mining extracts appropriate knowledge from the text documents. Different text mining techniques convert unstructured data to structured data. Text classification, one of the basic principles of text mining, requires a number of techniques for processing text, the most important being Natural Language Processing (NLP). Text Mining simplifies data and is useful to researchers, scientists, and academics. Various analytics tools are used for deriving relevant and in-depth information and inferences from the mined text. This paper

studies various text mining techniques, and discusses recent advances in the field of design science.

127. The Jolting Impact of COVID-19 on the Micro, Small and Medium Enterprises in India

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With the continuously increasing COVID-19 cases beyond 2,00,000 and death toll going beyond 9,000, the World Health Organization (WHO) announced the Corona virus eruption as a pandemic in the very second week of March 2020, which is exactly four months after this virus came into headlines first in December. Almost 165+ countries have been steadily adopting lockdown, and many businesses of the various sectors across the globe have the fear of collapsing financial markets. The economic maturation in India for the yesteryear had not been up to the mark and now with the pandemic effects clubbed to it, the impact has been jolting. With the rise in unemployment (from 6.7% to 26%), fiscal deficit, RBI cutting on the policy rates to soothe the equity investors, and stave off the coronavirus related recession, the economic growth has gone haywire. India is currently hosting over 75 million MSMEs and the imposed lockdown due to COVID-19 threatens its massive 43 % for shutting down. This sector which provides 114 million people with employment and 30 per cent to the Indian GDP, is going through one of the tough phases which immediately require actions to liberate this sector from such a big hurdle.

128. A Study to Identify the Possibilities of Implementing Robotic Process Automation for the Processing of Loans in Banks

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Today various studies are going on in each and every part of the globe to find out the ways of minimizing operational costs, increasing efficiency and thereby improving the Return on Investment by almost all the organizations. Technology is one of the key

factors that aids to the change processes happening all over the world and today, the organisations are ready to implement any kind of technology that will help them maintain their market position in this highly competitive environment. Robotic Process Automation is a technology that could be considered of prime importance and can solve these issues in an organisations, once it is implemented in an efficient manner. RPA finds use in those organisations in which the amount of manual processes is more and the works are repetitive and time consuming. Financial institutions are one amongst those organisations which can take the advantage of having RPA for improving their operational efficiency. The financial institutions contain a lot of manual and repetitive tasks in several departments. This paper is based on the study conducted to find out the key areas in which RPA can be implemented so that it helps the financial institutions to make their lending process easier.

129. Analytics Framework for Cyber Defense Using Data from Multiple Sources

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The concept of analytics to improve data security management is the key component for cyber defense against all possible attack vectors. Based on the IT information available and their possible affordances, a research model can be constructed to analyze the mechanism behind Analytics usage for better information security management. At the same time, the model takes care of the position of IT convergence and data-driven community and has been tested empirically using real-time data using partial least squares structural equation model. The data-driven culture and incorporation of IT processes provide a constructive collaboration impact on the dependencies between business analytics and management of data security. However, in the current IT environment, it becomes necessary to define and forecast the intent of the sophisticated targeted attacks using noisy multisource data (Gochhait, 2011). So we discuss ways to merge this heterogeneous data and perform correlation analysis, which can be used in the proposed analytics framework for better detection and prevention against targeted cyber-attacks. The framework also recommends using attack graph analysis and several security metrics to understand the effectiveness of our protection systems. This framework can be extended to cloud technologies as well, enhancing the management of cloud computing data security (Gochhait, Shou & Fazalbhoy, 2020). The key to creating a successful framework using analytics is not the amount of data but mining that generates insights. Thus from the perspective of cloud computing, analytics support decision rationality affordance through the decision making affordance for better security management practices.

130. Challenges of Applying AI in Healthcare in India

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With the advent of digitalization, upcoming technologies like Artificial Intelligence (AI) are being utilized by healthcare services to manage various parts of healthcare services to mimic human cognitive functions. This technology is expected to bring about a massive change to healthcare. Patient management, clinical decision support, patient tracking and health care services are the four main AI-enabled fields of the healthcare industry. The applications of AI in health care have gathered much attention, but the adoption issues of AI have not been significantly tended to. There are several challenges of its implementation such as resolving the unequal relationship between trained physicians and patients and increasing efficiency of the physicians so that they are more effective in their work; providing AI enabled healthcare equipment in rural communities; and educating physicians or doctors in handling it. AI technologies have the potential to enhance patient outcomes but may also pose significant risks in terms of inadequate patient risk assessment, medical error, suggestions for treatment, privacy violations, and others.

131. The Development of Artificial Intelligence in Health and Medicine: A Bibliometric Analysis

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During recent decades, the growing relevance of Artificial Intelligence (AI) in the field of health and medicine has sought exceptional research interest. AI is already helping us to diagnose diseases more effectively, develop drugs, customize treatments and even edit genes. Artificial Intelligence (AI) research in the field of medicine has been rising briskly. Healthcare AI initiatives, in 2016, have received more funding than AI projects in any other field of the world economy. The goal of this article is to examine and discuss health and medicine published studies related to the area of Artificial Intelligence, published in Peer Review Journals and indexed for the period 2008-2019 in the Web of Science Core Collection. The analysis examines, how the adoption of Artificial Intelligence has opened new avenues for exploration by taking into consideration the publication volume, authors and countries that have collaborated. Also, how digitizing and unifying the medical data would lead to AI finding useful

pattern. A worldwide nexus of significant techniques like, involving authors' keywords and content assessment of relevant research literature were underlined, Machine learning, Artificial Neural Network, Artificial intelligence, Deep Learning. This study takes detailed evaluation for emerging AI developments and future general usage prospects.

132. Cyber Laws and Modern Surveillance; Public Protection or Privacy Violation

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The idea of this paper is to describe cyber law in the modern era and how it is related to the use of legal tools for public surveillance and its argument on public data protection and security. Or these laws invade the privacy of those subjected to these laws and designed to serve those who enacted the laws rather than protect public for those laws were formed. The paper reviews a global perspective, the governments curtail the liberties of citizens, misusing private data of citizens, and different laws came into picture, how those laws being used to invade privacy of citizens. Then, by drawing up the relevant provisions of the Information Technology Act, 2000 and dealing with the provisions of the Law on the Right to Information, 2005, it discusses the major provisions concerning cyber security. This paper explores the theoretical approach to the regulation of personal data and the normative foundations of the GDPR (General Data Protection Regulation) of the European Union and the analysis of the new Data Protection Act, PDP (Personal Data Protection) Bill, 2018. The paper will also touch some few other standouts global cases which will demonstrate data breach, compromising of data and how it does cost to company and its customers.

133. Trend Analysis of Electric Vehicles through Web of Science: A Bibliometric Analysis

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The automotive industry has stepped into a new era of a "pollution free and environmental friendly" world with electric vehicles. Increased awareness of the environment and sustainable development has made electric and hybrid vehicles to

replace combustion engines by leading vehicle manufacturers. So it is very crucial for all vehicle manufacturers to be up to date with the current trends and on-going research. A trend analysis will be done using bibliometric analysis, wherein data will be collected from Web of Science database from the period 1980-2020 using keywords like “Electric vehicles” and “Energy fuels” in order to identify contributions relevant in the field of electric vehicles. The data will be used to find out the on-going trends in electric vehicles research including major contributing countries, number of citations, year wise publications etc. This study would help researchers and academics understand trends in electric vehicles sector as well as facilitate future research in electric vehicles.

134. Possible Ways to Overcome the Obstacles of Commercializing the Digital Currency in India: A Bibliometric Analysis

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In this new era of digitalization where the world is moving faster with the growing technology and so are we from paper currency to digital currency. The term Crypto currency came into existence in the year 2008. It is one of the rapidly flourishing technology in the world, which is taking industries to the next level. This is no less than revolutions in the world of currency globally. Crypto currencies are also termed as digital currency which completely depends upon the distributed networks and shared transaction ledgers-the goal was to combine this with basic idea of cryptography within the monetary system. This process will allow to create secure and anonymous system which could handle the digital money with ease. The purpose of this paper is to understand the current scenario and bring on some possible ways to commercialize digital currency in country like India which will change the perception of people about digital currency which will be becoming as the future currency in the world. However, using Bibliometric Analysis, which were published in Peer Review Journals and indexed in Web of Science collection from the period of (1980-2020). The data are collected from Web of Science and some reference are taken from different news editorials in order to build a proper approach. However, people have shown their interest as per the data (600, 00) but many were not ready to accept this form of Virtual Currency.

135. Post Pandemic Cloud Adoption: A way forward

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The study seeks to understand the need of organisations to shift their business to a Cloud Environment specifically in the post pandemic situation, and suggests a set of best practices for cloud migration keeping in mind the security concerns in different industries. Primary research methodologies were taken up for this study. A structured questionnaire was administered to 27 technology experts from various industries. Out of 27 chosen experts 19 responses were received and they were then engaged into a detailed unstructured interview. The in-depth analysis of the data led to a few major findings. Cloud adoption for carrying out the business virtually could be a game changer for any medium or large-scale organisation in the post pandemic phase. In order to adopt the cloud environment, there are seven major decisions which should be made by organisation before migrating to cloud. Various organisations can use this study to reduce their capex and opex in the pandemic situation by carrying out their business virtually using cloud. Further it suggests a set of best practices to help organisations in decision making for cloud migration.

136. SCADA Systems Security in Wireless Sensor Network (WSN)

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The increasing interconnectivity between SCADA (Supervisory Control and Data Acquisition) networks has increased network security problems. The efficient use of APCS (automated process control systems) as well as supervisory control and data acquisition systems (SCADA) information security completely depends on the mechanism applied for data transmission. This Paper deals with problems of discovering attacks that may happen in wireless sensor networks (WSN) of SCADA systems. It deals with brief classification of some attacks that are done externally and also talks about intrusion detection system (IDS) in WSN. The cryptographic encryption that is present in the WSN have been resolved by symmetric 128 bit AES encryption in accordance with ZigBee Pro Feature Set specification. However, According to current analysis in the field of data security in wireless sensor networks(WSN) it has been proved that the key management problem still persist and it is not solved yet . This Paper considers the

objectives as well as the problems related to WSN key management for data encryption for SCADA systems. The key information structure present in the Zigbee network and methods by which keys can be obtained are briefly discussed in the paper. This paper also deals with Different hybrid key management algorithms as well as WSN topology along with using routing information frames determined by routing methods.

137. Impact of Internet of Things on Automobile Sector

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Internet of Things is the next big thing which is transforming our life, earlier internet had done this by connecting humans and now, Internet comes with the ability to communicate with things. Internet of Things is here to transform the world and make life easy and flexible by automatizing everything. Few decades early, IOT in automobile was just a concept, in current era we are able to see use of IOT in automobile sector. Some of the applications of IoT are Automatic climate control, Smart infotainment, Fleet management, automotive maintenance system, Parking asset, Vehicle tracking, Accident prohibition and many others. In the future we will see fully connected vehicle and driver less cars on the roads. This paper discusses the impact of Internet of Things on automobile sector for that we will going to focus on certain aspects such as connected vehicle, Driver less cars and new generation upcoming cars.

138. Adoption of Blockchain Technology in Indian Public Distribution System Challenges and Solutions

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Indian public distribution system is a process to ensure food security in the country and provide basic food grains at subsidized rates with involvement of food corporation of India, an organization set up, and run by the government of India under Food Corporations Act 1964 & National food security bill of 2013. For increased efficiencies a proposed adoption of blockchain technology in the Indian public distribution systems which can foster transparency and monitoring systems. The paper is a suggestion of solution structure for secured and transparent systems using blockchain technology.

It is a concept paper and we propose a solution to manage and track efficiently the process public distribution along with the supply chain solutions, within the Indian Public Distribution System with technology enhancement using Blockchain. The Findings in the supply chain structure of the public distribution system in terms of tracking in transportation and trade booking with robust solutions for of verification and traceability. Losses and malpractices of false bookings to avoid corrupted practices with be more effective in cost-saving, with efficient delivery and reach.

139. Understanding Issues in Cloud Forensics

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For a long time, cloud computing has obtained appeal, and currently utilized to sustain different aspects of human course. Cloud forensics has actually been presented to assist forensic detectives to discover possible reasons versus cloud convict tasks and keep the safety and sincerity of the material held in the cloud. While an excellent study in this field has actually been accomplished worrying obstacles as well as remedies, the survey of techniques and structures is still in its early stage. This write-up concentrates on the technical elements of cloud forensics. It thoughtfully assesses cloud forensics existing difficulties and remedies. In addition, it checks out, based upon a comprehensive testimonial of the study, the entire job that has been performed both in digital and even cloud forensic techniques generally for sustaining the examination of protection occurrences in the cloud. The in-depth contrast exposes resemblances as well as disadvantages of the existing approaches offering some different future research study instructions.

140. A Study on Effect of Proximity Marketing on Consumer Behavior

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This paper aims to determine the influence of proximity marketing on the customer behavior. To attain this objective, qualitative primary research method is employed. The impact on the customers and perception of the customers for the personalized

advertisements sent to the mobile device using proximity marketing are analyzed by interviewing various consumers. Inputs from consumers are taken by conducting group discussions with different questions based on the influence of proximity marketing. The discussion is accompanied by 30 individuals followed by analyzing the responses. The findings reveal that most of the informants are positively impacted via proximity marketing technology. The current study is conducted for the usage of proximity marketing technology for retail shops and food outlets in the malls. Future research should focus on its usage for multiplex cinema and game zone in the malls. The consumers tend to visit the brand's shop displayed in the advertising content owing to various factors such as promising content of the advertisement and discount offers provided by the brand.

141. Impact of COVID-19 on Sports Industry

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To find the impact of COVID-19 on the sports industry, and how the industry is going to adapt to the changes. Secondary data was collected from several websites related to the revenues, broadcasting, and sponsorships of various sports. Primary data was collected in the form of public opinion in order to analyze how the overall figures are going to change in the coming years. Qualitative method was used for the analysis. After analyzing the data following findings are indicated with respect to the changes in the sports industry: a) Sports industry is set to take a massive loss in terms of revenue, b) The public would not attend any sports event until early next year or until a vaccine is developed, whichever is the earliest. The limitations of the research could be the revenue data which is likely to change with resumption of sporting activities. The public opinion might vary as the situation improves, and the opinion will also vary from one country to another. The study will be helpful for all the sports enthusiasts as they would get to know the overall industry scenario, and also for students who would want to explore the sports industry from the outside.

142. Healthcare Information Privacy: Growing Need for Security Techniques in Healthcare Systems

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Information privacy and security has gained utmost importance in the healthcare sector due to the sudden paradigm shift towards digitization in the healthcare. The digitization of patient records has increased regulations, need for exchange of information points towards the need for a robust information security system. Considering the sensitive nature of the healthcare data it has become extremely essential to have a reliable information security infrastructure in place. The strategies that need to be adopted should not only react and protect the sensitive healthcare data but it should also be able to foresee and prevent any kind of offensives launched by cyber criminals. Qualitative Research Methodology was employed where a group of people were surveyed through an online questionnaire along with focused group discussions, in-depth interviews of professionals having work experience in healthcare. Their responses were recorded and analyzed to provide a better in-depth insight on healthcare information security.

143. Review of Regulations Pertaining to the Allotment E and V bands in India

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India's aspiration to be a \$5 trillion economy by 2024-25, is premised on its digital contribution, as a part of its national Digital India program. In addition, events like COVID-19 have greatly increased the demand for broadband services as people are forced to work from home. Technology has been a key enabler that has empowered us to meet the challenges presented by the COVID-19 pandemic. It has reshaped tech priorities for corporations and governments. Digital companies are facing huge challenges in terms of managing the load on the presently deployed infrastructure. Thus, back-haul network infrastructure strengthening is becoming extremely important. Countries all over the world have strengthened their backhaul infrastructure by delicensing or light licensing of spectral bands. This paper analyzes the regulatory framework, the issues with respect to network infrastructure, rising future demands and how deployment of E and V bands can ease the load on present infrastructure.

144. IoT Payments

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The perception of Internet of Things (IoT) is characterized by connecting devices to the network. Consumers now-a-days are connecting everything that they can without thinking whether it's good or not. The essence of IoT is how these consumers pay. As they become more technology savvy, the need for integrated payments becomes crucial. Today, payments need and have to be transparent. Security is not limited to payment itself. Approach to security is to be broader than just securing transactions. The security of IoT payments has become an important issue and would be interesting to know what role payment gateways like Visa & Master card can play. The slow adoption in financial sector, absence of standardization and multifaceted technology ecosystem threatens to strangle innovation and market evolution. Since IoT payments is an upcoming field there is a dearth of academic research in this area. The paper addresses this issue.

145. Study of Competition in Indian Telecom Sector: Case of Vodafone-Idea Limited

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The Indian telecom industry is one of the world's largest that connects numerous parts of the nation via various means, such as telephone, radio, TV and the internet. India is the world's second-largest telecommunications market and one of the fastest-growing markets. Most of the potential customers are expected to be in rural areas with insufficient basic infrastructure and weak or semi-connectivity, with lower phone calls and premium services. The urban customer demands high-speed internet access, digital video streaming, navigation and maps, music downloading, games, e-commerce, IPTV, and mobile TV. The research deals with Vodafone Idea's approaches. The assumption is that Vodafone Idea must be defined not only by its core strength but also by the diversification of its resources and collaborative abilities. This study recommends that the Vodafone Idea should follow an aggressive strategy for development by acquisition, collaboration, and integration.

146. Understanding Consumer Behaviour on B2C Ecommerce Platform

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The purpose of this research is to understand the consumer behaviour while shopping online and to understand the impact of various features on their buying. A survey consisting of well thought questionnaire was carried out to understand the behaviour of customers and understand factors that consumer shall prioritize the most while buying on E-commerce platform. Also, the survey consisted questionnaire of about the customers awareness about the data being used by E-commerce sites. There were some strong priorities or preferences for certain factors that influenced the behaviour of respondents while purchasing products online and it confirmed about the awareness of how E-commerce use the customers data. Most of the samples collected are students and youngsters. The behaviour of the respondents or customers may change depending on the need or situation. The research contributes a unique perspective in explaining the factors affecting consumer behaviour the most while shopping online. It may help the marketers to position their products accordingly.

147. A Study of Monetizing the Next-Generation Cellular Technology: 5G.

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Heavy Capex demand and reduced traditional revenue sources have made tremendous financial pressure on the telecommunication industry. The purpose of this paper is to provide an understanding of strategic importance and monetization strategies of 5G. The case study approach is adopted for this research paper. Secondary market research is carried out for the global and Indian telecom market, to find out the direction, forecast, and market readiness about 5G. Identified and studied different use cases and business models proposed by Original equipment manufacturers (OEM), and research organizations. New revenue streams can be generated through new technologies in areas like managed services, IoT applications, partner ecosystems, etc. 5G support these new technologies and will help telecom service providers gain new revenue streams. Based on research output, we have proposed 6 different business models that will help CSPs to capitalize on their resources.

148. Crime and Criminal Tracking Networks System: Case Study.

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The Police have always been viewed as a crucial branch of the state and hold their valuable importance in the present era too. Law and order enforcement are recognized as a milestone in the democratic system of any civilized society. In recent years, crime has become a serious problem in most of the countries. Nowadays criminals use various modern technologies to commit crimes. Information and Communication Technology has evolved the process of communication, not just with one another but with the government and private institutions such as NCRB/MHA as well. The domain has not only made the collection, storage, and rapid dissemination of information possible but has also enhanced public safety which in turn lowers the crime. CCTNS (i.e. Crime and Criminal Tracking Network System), uses a pre-existing method like aging to prove of great importance to not only the individuals but organization too. Various factors such as delivery time, customer satisfaction, low cost, customer engagement along with better understanding, higher performance, and high-quality products are essential components of any successful project. This is where the current approach comes into play and helps in the combat of crimes more efficiently than the traditional ways.

149. Evolution of Embedded Sims, Concept, Benefits, Challenges, Use Cases in IoT and It's Future.

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The Subscriber Identity Module (SIM) card technology has been evolving in size and features over the years. A SIM card is identified by the end users and acts as a means of identifying devices onto a specific network. Embedded Sim cards with remote provisioning capability can be proved to be a very efficient solution and would add new features aiming towards improving the scalability for the Internet of Things (IoT) applications. The growing rate of Machine to Machine Communication (M2M) is witnessing challenges with the traditional SIM card technology. The advancements in applications and the need for faster data speeds and access requires efficient mobility solutions. This study will help us understand the traditional cellular network

structure, SIM card technology, and how the possible future scenarios in Machine to Machine (M2M) Communication would be changed by upcoming ESIM technology. This study would focus on the technical as well as business advancements, benefits, and challenges involved in the adoption of ESIM technology.

150. Analyzing the Vital Role of Enterprise Data Lake in the Era of Digital Transformation.

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Gathering various data for analyzing and decision making has been relatively easy for enterprises. But the issue of managing and storing these data collected has been the major issue faced by enterprises at all levels. The emergence of data warehouses and enterprise data lakes has helped resolve the issue of dealing with data silos and in deriving value from unlimited size and types of data. Data lakes not only provide various technological benefits but also democratizes data with better scalability and versatility. Unlike data warehousing, a data lake helps in real-time decision analytics and provides more ways to analyze data. This paper focuses on the important role enterprise. Data Lake plays today to overcome big data challenges and drive this era of digital transformation and how building an enterprise data lake can transform the business paradigm. It also discusses the market overview and growth of data lakes with the future scope and what are the challenges and opportunities arising with the growth of enterprise data lakes

151. Predictive Analytics to Offer Profitable Anticipatory Shipping for E-commerce Companies.

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Predictive Analytics due to its ability to forecast can be an industry disruptor to bring in an efficient change that optimizes the operations of E-Commerce companies. Anticipatory shipping, by the name, suggests predicting demand even before the customers make up their mind to purchase. It can be turned into reality through the

processing of massive amounts of transactional data, so as to level up to the delivery services of the brick and mortar stores. This paper deals with how can predictive analytics which when used for anticipatory shipping could turn out to be profitable. Here we have considered different factors which if monitored properly through the algorithms will ensure profits to the E-Commerce companies. This paper also deals with the threshold limits in the inventory management and the management of the perishable products which if not dealt with properly may result in losses while doing anticipatory shipping.

Telecom Business Review



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