The Artificial Intelligence and Inventory Effect on Banking Industrial Performance

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Abstract

A vital element in development by the main technological problems is structural change and an improved substantiality of good leadership. "Many of what we do at the beginning of infrastructure, technology and data is almost unknown, and a great deal of it is related to transition and the acceptance of the company. While the study results are continually reinforced, it remains a crucial challenge for others to consider that necessary enhancement in analysis guidelines, policies and skills will result in a generational change in the process. A substantial range of reports has interpreted the influential effect of large data on their activities for companies in the United States. The primary goal is to ensure that the banks' productivity fluctuates when the Bank's artificial intelligence programs cannot integrate effectively and reliably, with a longer-term effect on bank profitability. The survey conducted quantitative and qualitative methodologies by conducting comprehensive interviews and surveys with a determined number of data collection respondents. It then examined the data collected with the use of the SPSS methodological tool to verify the hypotheses. The results show that artificial intelligence programs in the banks had a greater financial performance. Therefore, the researchers should be able to choose many variables to create a modern

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questionnaire to assess the significance and effect of artificial intelligence on the success of the Bank and the management of big data.

Keywords: Financial efficiency, intellect artificial, inventory management, management competencies and technological skills.

Introduction

Inventory management and its extensive review are the future nuclei around which companies develop their strategies to compete in a global world that is rapidly changing [1]. This growth in the vitality of the benefit and risks of big data is one of the economic factors. The Change in Inventory Management appears to disrupt the environment of the industry [2-5]. Eighty-four percent of companies have launched advanced analytics and inventory management projects to improve accuracy and acceleration in decision-making, according to an earlier study of 60 leading companies in America [6-11]. More than one-third claims that industry is a primary focus in advanced analytics and stock management expenses. According to the multinational analytics institute, inventory management firms will significantly improve their productivity and achieve dominance over their competitor companies by 2020. Although it is seen as a key valuation source for all companies, stock management remains a trendy source. However, the whole phenomenon is not well known or understood, which poses several problems for companies [12-17].

While this study offers important and positive evidence about the essence of these transformations, its utility is still limited at the regional level in various contexts [18-21]. In this report, we look at the field of performance evaluation. There are two main reasons for our goal of improving our performance [22-27]. First, performance management is a well-established area for managers who place them more easily and more securely for our analysis. Because management plays a major role in embracing a company culture informed by evidence, full commitment is necessary. Second, the cohesion of inventory management and success management is a topic that is investigated and interpreted. Different researchers have evaluated the benefits of such a relationship, though [28-35].

"The move to near-actual-time dashboards and real-time interactive activities from traditional monitoring applications to the deployment of information is a fascinating area." Investment management perspectives are of vital importance [36-41]. It is stressed. In addition, efficient management tools were used by performance tracking programs which used market intelligence tools to cope with data-driven analytical approaches. In addition, the adoption of the data-driven market culture is mostly influenced by unlearning [42-47]. It is understood

that civilization should be based on a solid foundation. There are various challenging approaches for organizations to implement performance monitoring successfully. This paper explains how managers see these issues in terms of quantifying and managing the restrictions, impacts, and benefits of this production [48-51].

This second part of the paper also examines the concepts and procedures of the data-driven market model. The third part will deal with our studies and related problems. We may analyze and evaluate the grounded hypothesis using qualitative analytical approaches [52-67]. It is recognized that the convictions and ideals related to technological progress also go hand in hand with the thinking of management and policy leaders, which influences what should be achieved to further our decision-making [67-72]. The main categories from which a multitude of related meanings are generated are focused in this model. Our results, observations on research weaknesses and suggestions for further analyses have concluded the report. Generally, the effect of Inventory Management on organizations on the information, interpretation and impact and the interaction between evidence and decisions would be managed. We frequently examine the broader consequences of legal and social issues [73-79].

Performance Management

Alabdullah, T. T. Y., [1] states that Performance Management is an assessment elements arrangement and dashboard for identifying, collecting, analyzing, and disseminating appropriate data to measure the efficacy of decisions taken and of operations. The ruse of rivalry between firms has made it more challenging for academics to improve success since 1980 [80-86]. The success improvement group of the company includes performance management and statistical approaches, including corporate procedures, metrics, enterprise performance assessment methodologies and monitoring methodologies [87-96]. Brynjolfsson's performance management in 2011 would increase the number and volume of large data metrics, showing how the company will increase its productivity by adjusting efficiently about the procedures. Management activities are often related to board of directors requirements and could directly impact company management and productivity, under which researchers have studied literature extensively. Information systems are used to offer management support through quantitative and qualitative adaptation of different indicators toward target objectives and industry standards in the Chang study in 2014 [97-101].

Inventory Management and Big Analytics

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With some uncertainties and few inconveniences, the era of inventory management presents business environment challenges and prospects. The prediction is that new insights from inventory management will be examined in the current performance evaluation schemes [102-107]. This is not only a question of size since the stock management needs other elements, such as unstructured data processing and storage, especially from unexpected networks, social networking and other sources. Schonberger and Chen also discussed the proof fiction approach for the current inventory management world in 2012 [108-118]. In a tabulated process, the phenomena of the production of data must be quantified. However, inventory administration shows more than a quantitative and also intangible transformation. The wide analysis is known as effective, picture- and perspective-built processes driven by data associated with inventory management.

Big analytics rapidly develop huge data into data that enhance the decision-making process through developing insights with these new analytics. Thus, big analytics give companies more insight and improve their performance. The increasing need for more insights and data would make company decision-making more efficient and faster in adapting market-focused decision-making frameworks. Through implementing changes in different areas of emphasis resulting from the adequate data and their analytics, Chen etc. studied the cross-industry implementation of the BD and the BA. One of the key advantages of using BA and BD is that they provide businesses with a competitive edge which could generate significant leverage across many financial sectors and industries.

Data-Driven Performance

The control of performance and the management of inventories provide several advantages. This supports decision-making, predicts consumer appetite, improves customer services and improves user sensitivity. Additional advantages will include enhanced industry advertising efficiency and revenue volumes, improved consumer awareness and improved budget and administrative reporting, more flexible options, cost reductions and improved organization ERP processes. Management choices also relate to the paradigms in the board of directors, which may affect management and efficiency of the business directly, of which scholars have carefully examined the literature and give a clear view that productivity strategies may be offered to the organization. The management of inventory may be compared with the KPI objectives, the key performance indicators. It aims to inspire the company's own KPI dashboard technology. Still, it, therefore, provides useful case studies that demonstrate how dashboards can effectively be used to summarise inventory management reviews, like consumer engagement and personnel efficiency optimization, in different fields. A variety of

case studies have been conducted by ACCA that use broad-based data processing to manage findings. The objective was to investigate the reprocessing application, such as in Tesco and Walmart, and innovations to solve problems such as enhanced marketing and predictions utilizing methods of yield measurement.

Executives' Attitudes and Perceptions

Tamba spoke about the need for the whole business to conform to the technologies powered by data to be a data drive company. Managers are increasingly aware that the systems themselves and the user and adaptation and growth are the main barriers to the development of data-driven enterprises and the creation of a society in the data environment. Although BA and BD are increasingly fundamental to their positive market benefits, an empirical business model cannot be structured perfectly. McKinsey conducted a survey that shows how and how successful analytics are handled. There is a small connection between them. The organizational model is critical to maintaining consistency with the business model. As McKinsey said, "it needs to benefit from effective facets of existing cultures and processes while promoting the effectiveness of cross-functional practices in analytics." The literature emphasizes the need for modern management skills to develop innovative strategies for study models and integrate them. Davenport further stated that changes and innovative skills and knowledge training were important and could result in a change in business management.

In-memory Computing

Memory computing primarily depends on the RAM, which is the simple storage of data on the machine. If the information in this part of the machine can be saved, bottlenecks from the data reading are omitted. The main purpose of regular databases and technology is to reduce the answer time without any monitoring delay. It uses relation-free and collaboration tools, including NoSQL, to assess large data sets, use its capabilities, advanced testing, and as an analysis platform.

- OLAP analytics make it possible to balance results with projected benefit by division and different segmentation differences between annual profit views,» states Den Boer in 2014.
- Data mining solutions can help unknown groups discover patterns or affinity and associations which symbolize events," said Marakas, O'Brien.

Resource-based View

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The resource-based view of RBV considers an organization to be several different channels and facilities. It is the main theoretical basis for considering the sustainability of business capital against the competition. Many researchers explored the relation of the resource-based viewpoint when discussing the IT resources of company achievements. The resource-based perspective has two assumptions, and the first is that resource uncertainty is immobility. The variability of resources ensures that all companies have resources that are distinct from other companies. These resources cannot be transferred by the concept of resource immobility from one company to another.

In addition, resources interpret the strategic gains centred on the VRIN by adding and stating, "there is an important (V) non-replaced (N) and unavoidable tangible and intangible wealth" which can achieve a competitive advantage." These characteristics will be VRIO characteristics. The three first features mean the capital properties, whereas the corporate aspect emphasizes power over valuable resources that are scarce and imitate their capacity to improve. There are, therefore, two main facets of capital dependent vision, expertise and infrastructure. From a capital point of view, a productive enterprise can leverage its key resources effectively to achieve high company performance. Numerous IS-and information system research has brought in comparison to the resource-based view that, according to IT-capital, bring value to market operation.

In contrast, resource-based perspectives are often criticized due to their stalemate and lack of description of how available resources are and how unique abilities can be generated and how competitive advantage can be won. Several scientists also added that the integration of IT capacity in the organization would lead to a wider view of IT capital. The resource strategy, by contrast, highlights both abilities and capital. However, these two things differ as capacity is not easily replicated as commodities since they are more rooted in the environment and culture of the organization.

Empirical Literature

To make optimal options for BDA, Guesalaga in 2016 has discussed the advantages of big companies with a strong degree of organizational learning. The relationship between BDA's expertise and business performance was further interpreted by Fossa Wamba and others in 2017, indicating that the impact was specifically and implicitly observed. They recognized that BDA's capacity affected the enterprise's productivity positively and that process-oriented dynamics play a crucial role as mediator in this regard and also observed that the capacity of BDA was correlated positively with the performance of an organization, with a crucial moderating impact on the coordination of analysis capacities in the market strategies.

K. Kankaew, S [2]. launched a knowledge and dynamic power mathematical model to assess the value of the BDA. They also indicated that BDA has a positive impact on the growth of the business and provides context knowledge and corporate agility and has already recognized the impact of the potential of BDA on healthcare firms and has also seen that this leads in different ways to generate demand. These findings represent the following assumptions, and the ability of BDA has an advantageous effect on the business' performance.

Boe Lillegraven also proposed that corporations should follow current strategic practices to take advantage of developing opportunities that could yield higher results for corporations in comparison to the various companies about ambideXterity and consumer growth in innovation for BDA. A good connection between BDA and market outcomes was observed in several studies with several moderation variables. Many of these studies use dynamic skills to recognize and react to environmental threats and opportunities and rapidly change their tendencies. To provide large data insight about the potential to extract details from the big data and suggested using new technologies. When BDA is implemented properly, the abilities are greatly improved and have an overt and indirect impact on results. These principles are used for capacity study as earlier IT capability testing, and business performance has shown the vitality of several diverse capabilities.

Innovation Ambidexterity

The company normally struggles with competing decisions in difficult circumstances. To bring development, they need to concentrate on productive activity and focus on innovation in response to increasingly developing market conditions. Khade adds that exploration and development are essential to companies, mostly for various directions, to find scary resources. The processes and procedures needed to be designed, but how quickly the organization will adjust, has a different effect on the performance of the enterprise. Companies can respond quickly to find the balance during the adjustment process.

The issues presented are further explored in the technical section of this article. Ambidexterity of innovation and company growth means companies can follow current industry strategy and exploit new opportunities that might achieve superior results over diverse companies. However, the success story Levinthal and March announced would be underpinned by excessive tension: 'Organizational inertia which decreases the ability of business in response to changing circumstances, which in the long run leads to low performance' stressed the problem of innovation "too much emphasis on experimentation, but

it is a trap for failure" whereby discoveries are replaced with new ideas too quickly to contribute to the sales of a company."

Previous analyzes have demonstrated that the adaptive speed to a competitive environment has long run good corporate productivity since the output is dynamically effective and well regulated. The results of this analysis were well established. Several studies have shown that ambidexterity and optimistic aspects have to do with business outcomes. For example, Malaquias noted that the correlation between exploitative and explorative creativity techniques is positively linked to turnover growth rates. The corresponding imbalance between the two types of proposals is negatively linked to turnover growth rates.

In addition, due to the various management decisions, sales growth and transfer rate are often subject to changes. Thus, the relationship that many scholars have interpreted in connection with the company performance is very important. McNeely has also added that the performance of the industry and ambidexterity was positively correlated to middle management and that companies with a higher degree of ambidexterity have a higher rate of development and higher revenues than their rivals. Since literature accepts and agrees that the new skills and uncharted tools are currently used, it will allow an enterprise to improve its performance. However, not every study has the same observations and interpretations as certain research had mixed outcomes.

Research has shown a small connection between them, for example, research by Merchant, although further research has shown a dependency, for example, on their research. By way of a meta-analysis of previous research, has interpreted success and ambidexterity and has concluded that ambidexterities are positive and efficiency associated.

Data Collection

The researchers obtain data using inferential and descriptive statistics to confirm findings and analyze the results using a statistical mechanism. In addition to the classification of main words, secondary evidence is obtained by reviewing previous studies by various scholars. Both data styles shall be applied in the analysis. The researcher will use this data-collecting survey to analyze workers' moral impact and management in the banking sector utilizing various studies and researchers previously conducted. The data were obtained using the qualtrix method and evaluated using the statistic framework of the SPSS. In descriptive and inferential statistics, the findings would be seen. However, the following model will be measured in the following section:

- $Y = A + BX1 + BX2 + BX3$

  Where Y is the dependent variable which is performance

- A = Constant

- B = Units measured

- X is the independent variables

Data Treatment

During the survey distribution by a given number of candidates from various banking institutions, the researcher would use the quantitative approach to analyze the collected data using the SPSS statistical validation mechanism for hypotheses. The samples taken by the researchers to analyze the effect of artificial intelligence and Inventory Management upon the output of the banking industry would be analyzed in this sector. To ensure precision and validate the test hypothesis, the survey has been focused on study variables.

For confirmation of theories, the researcher utilizes both informative and inference data. The statistics are defined as pie charts, bar diagrams and frequencies. For example, the chi-square regression study would measure the relation between dependent and independent variables based on a typical 5 percent error to the inferential statistics.

Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.396ᵃ	.157	.132	.01829

a. Predictors: (Constant): Inventory Management Analytics, Technological Advancement, Employees Skills

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.101	.007		14.289	.050
	Inventory Management Analytics	.242	.087	.300	2.785	.006
	Technological Advancement	.403	.121	.462	3.324	.001
	Employees Skills	.214	.087	.270	2.471	.014

a. Dependent Variable: Performance

The regression analysis was conducted to test the relationship between the variables and validate the research hypotheses based on a margin error of 5%. It can be noticed that the all the variables, Inventory Management Analytics showed a significance of (0.06) and a T-Test of (2.785), Technological Advancement showed a significance of (0.01) and a T-Test of

(3.324), Employees Skills showed a significance level of (0.014) and a T-Test of (2.471). Since all variables scored a significance level lower than 0.05 and a T-Test above 2, then the null hypothesis is rejected, and the alternative one is accepted.

$$Y = A + BX1 + BX2 + BX3 + BX4 + BX5$$

Performance = 0.050 + 0.30 Inventory Management Analytics + 0.462 Technological Advancement + 0.270 Employees Skills

This means that:

- For every 1 unit increase in Inventory Management analytics, the performance is affected by 0.30 units

- For every 1unit increase in technological advancement, the performance is affected by 0.462 units

- For every 1 unit increase in employees skills, the performance is affected by 0.27 units.

It can be noticed that the R scored a value of 39.6%, which means that 59.4% of the variables had not been measured in this research yet.

Interview Findings

In interviews with bank managers, artificial intelligence and inventory management function in the Bank's performance was studied. However, the following answers were taken into account:

- The processing of inventory management directly impacts access to vast, structured, and rapid data transmission. Therefore, the data on the Bank should be sorted, organized, and categorized to be precise and useful. If information is not structured fairly, it would be difficult to conduct a credible analysis and adversely affect bank output.

- Sex, age, position and income level should be classified, for example, in bank details. The descriptive organization that is the categorization will allow the Bank to achieve better targets throughout the segment concerned.

- For example, car loans target people aged between 20 and 35, while house credits are focused on clients of all ages and wages since the person prepared to pay a car loan may not have the option of paying a house loan because of the income and interest levels vary.

- Data were combined and updated regularly in banks to save consumer data and enhance sales. The IT department has to consolidate branch/headquarters details to

ensure that a centralized database can be set up and unified. As a result, both branches and headquarters of banks can manage consumer accounts and deal with customer loyalty and incoming products when consumers vary from one branch to another.

- Cloud resources are provided in banks to maintain the bandwidth needed for customers' database and other tasks available for internal and external operations.

- Internal operations provide human resources, rewards, bonuses, salaries and a range of other advantages and instruments. As for external activities, information is reliable, and customer services are efficient, such as a single database.

- However, banks aggressively engage in safeguarding confidentiality measures to prevent financial bribery and cyber-attacks, including money laundering, fraud, sham phishing and many other activities that may affect banks' data.

- Artificial intelligence is distinguished by using advanced information systems by the Bank to predict and improve performance based on previous documents or records for a time. In addition, artificial intelligence algorithms need to specify criteria to achieve the desired outcomes in executing these systems.

- However, it is impossible to use artificial intelligence technologies if there is no big data in the fund. Nevertheless, in making decisions and analyzing the sales, expenses, and several other activities that management will have to do to increase the Bank's effectiveness, artificial intelligence may play an important role if big data live long.

- Repeated seminars, tutorials and awareness camps on the importance of artificial intelligence programs would be quite important.

- For this reason, annual training courses are especially relevant for raising staff awareness of the importance of artificial intelligence in big data management.

Main Findings and the Analysis of the Outcomes

After the survey was conducted for managers and banking employees to collect and analyze data utilizing the SPSS, the findings revealed a positive relationship between inventory management, artificial intelligence and financial performance. The findings have also shown that the technical abilities of staff and managers influence the management of artificial intelligence in Lebanese banks directly. The more people prepare and learn, the more efficient they are, and the greater their bank productivity, the more technical skills are required. Moreover, the findings have shown that managerial capacity positively impacts the inventory management banking operation. To manage and guarantee an adequate yield, management and technical competence and the quantity of technology employed in the Bank

are dependent on the artificial intelligence system and the inventory management mechanism. Therefore, the more experience and inventions will be implemented based on its findings, the better the Bank's performance. Therefore, the more directly optimistic would be the managerial and technical skills, robotics and artificial intelligence.

The study had many constraints, particularly the processing of data, in which some managers refused to indicate all the methods of managing artificial intelligence and safeguarding bank confidentiality. On the other hand, any staff refused to deal with these issues because they thought their future in the Bank was lost. Therefore, the sample studied in this study is very limited due to time limitations; this was considered an important constraint in testing. Therefore, it was widely recommended that we receive greater data such that a sufficient number of participants would acquire accurate results. In contrast, the report covered banks widely, without a particular bank being taken into account. This is understood to be a key limit in the research where the outcomes normally apply, and if a single bank is chosen, the results are different. On the other side, the study dealt with a range of considerations, including technology, administration, technological expertise and documentation. Many other issues affect artificial information and the processing of massive data in banks.

It is highly advised that prospective researchers in one Bank analyze the findings of the analysis to achieve a higher population and produce more accurate results and test results. Finally, the following action plan in the banks recommends implementing an exact and consistent mechanism. To generate a new questionnaire, the researcher will choose a certain amount of different variables based on which the importance of artificial intelligence and its effect on the Bank's performance and Big Data management are analyzed. However, the more artificial intelligence is provided at work, the more powerful the sin banks are to deal quickly and effectively with inventory management in terms of previous research. For managers, analyzing large data and considering it to forecast the future of the business and its development, computer technology investments would be of great value to banking systems.

Conclusion

We recommend further review of IT company investment returns. It's essential because the field is gray. In the previous study, a positive connection between the enterprise's financial performance and the IT implementation stage was not convincingly found. Furthermore, research can be carried out to identify the impact of aligning the IT policy with the corporate strategy. To coordinate this method. The IT plan of the business will also be developed as several key activities that will enable the company to achieve its marketing strategies and objectives. Major knowledge analytics in various banking sectors are being used to provide

their customers with more services both in-house and in-house and strengthen their active and passive networks of security. In this analysis, we discuss the transactional and sentimental analyzes for the banking industry. We see one way to capture customer sentiments and not to measure the functioning of the Bank. Further forms have been utilized to gather customer-based knowledge from social networking sites and sophisticated market testing networks for banks and other financial institutions.

References

1. Alabdullah, T.T.Y., Ahmed, E.R., & Abushammala, S. (2020). Growth of Companies: Empirical Study of the Companies Listed in Developing Economies. *Journal of Accounting Science. 4*(2), 1-10.

2. K. Kankaew, S. Phalaunnapat, T. Ekachat and B. Sitikarn, "Service Attributes Attracting the Choice of Passenger: a Comparative Study of Low-Cost Carriers in Thailand," Linguistica Antverpiensia, vol. 2021, no. 1, 2021.

3. Ahmed, E.R., Alabdullah, T.T.Y., Thottoli, M.M., &Maryanti, E. (2020). Does Corporate Governance Predict Firm Profitability? An Empirical Study in Oman. *The International Journal of Accounting and Business Society, 28*(1), 127-143.

4. K. Kankaew, "The Competence that Satisfy Us: Agribusiness and Airlines Business Management Cases," *E3S Web of Conferences,* vol. 175, no. 13032, 2020.

5. Alabdullah, T.T.Y., Ahmed, E.R., & Nor, M.I. (2020). The World Declining Economy And Coronavirus Pandemic: Systems Should Be Continued. *Russian Journal of Agricultural and Socio-Economic Sciences((RJOAS),* Vol. 6(102).

6. K. Kankaew, "The Evolution of Agribusiness Management Values from Labor to Brain Mechanism that Shape Leadership Style," E3S Web of Conferences, vol. 175, no. 13033, 2020.

7. Alabdullah, T.T.Y. and Ahmed, E.R. (2018b). Corporate Governance: To What Extent it is important in the Arab Countries? *International Journal of Science and Research,* Vol.7(11).

8. K. Kankaew, "Mindset Development by Applying U Theory and Religious Concept in Educational System: Thailand as as Case," E3S Web of Conferences, vol. 164, no. 12002, 2020.

9. Alabdullah, T.T.Y., Ahmed, E.R. (2020). Audit Committee Impact on Corporate Profitability in Oman Companies: an Auditing and Management Accounting Perspective. *Jurnal Riset Akuntansi dan Keuangan Indonesia, 4*(2), 121-128.

10. K. Kankaew, "The servicescape of air transport terminal that affecting passenger's satisfaction," IOP Conference Series:Mater. Sci. Eng, Vol. 918, no. 012001, 2020.

11. K. Kankaew and P. Trerattanaset, "Contingency theory: the analysis in air transportation on anterior, amid, and afterwards the pandemic in Thailand," *IOP Conference Series:Mater. Sci. Eng,* Vol. 918, no. 012047, 2020.

12. Metwaly, A.F., Rashad, M.Z., Omara, F.A., & Megahed, A.A. (2014). Architecture of multicast centralized key management scheme using quantum key distribution and classical symmetric encryption. *The European Physical Journal Special Topics, 223*(8), 1711-1728

13. Farouk, A., Zakaria, M., Megahed, A., & Omara, F.A. (2015). A generalized architecture of quantum secure direct communication for N disjointed users with authentication. *Scientific reports, 5*(1), 1-17

14. Naseri, M., Raji, M. A., Hantehzadeh, M.R., Farouk, A., Boochani, A., & Solaymani, S. (2015). A scheme for secure quantum communication network with authentication using GHZ-like states and cluster states controlled teleportation. *Quantum Information Processing, 14*(11), 4279-4295

15. Wang, M.M., Wang, W., Chen, J.G., & Farouk, A. (2015). Secret sharing of a known arbitrary quantum state with noisy environment. *Quantum Information Processing, 14*(11), 4211-4224

16. Zhou, N.R., Liang, X.R., Zhou, Z.H., & Farouk, A. (2016). Relay selection scheme for amplify-and-forward cooperative communication system with artificial noise. *Security and Communication Networks, 9*(11), 1398-1404.

17. Zhou, N.R., Li, J. F., Yu, Z.B., Gong, L.H., & Farouk, A. (2017). New quantum dialogue protocol based on continuous-variable two-mode squeezed vacuum states. *Quantum Information Processing, 16*(1), 1-16

18. Abdolmaleky, M., Naseri, M., Batle, J., Farouk, A., & Gong, L.H. (2017). Red-Green-Blue multi-channel quantum representation of digital images. *Optik,* 128, 121-132

19. Naseri, M., Heidari, S., Baghfalaki, M., Gheibi, R., Batle, J., Farouk, A., & Habibi, A. (2017). A new secure quantum watermarking scheme. *Optik, 139,* 77-86

20. Heidari, S., Naseri, M., Gheibi, R., Baghfalaki, M., Pourarian, M.R., & Farouk, A. (2017). A new quantum watermarking based on quantum wavelet transforms. *Communications in theoretical Physics, 67*(6), 732

21. Nagata, K., Nakamura, T., & Farouk, A. (2017). Quantum cryptography based on the Deutsch-Jozsa algorithm. *International Journal of Theoretical Physics, 56*(9), 2887-2897

22. Nagata, K., Nakamura, T., Geurdes, H., Batle, J., Abdalla, S., & Farouk, A. (2018). Creating Very True Quantum Algorithms for Quantum Energy Based Computing. *International Journal of Theoretical Physics, 57*(4), 973-980.

23. Abulkasim, H., Farouk, A., Hamad, S., Mashatan, A., & Ghose, S. (2019). Secure dynamic multiparty quantum private comparison. *Scientific reports, 9*(1), 1-16.

24. Abulkasim, H., Alsuqaih, H.N., Hamdan, W.F., Hamad, S., Farouk, A., Mashatan, A., & Ghose, S. (2019). Improved dynamic multi-party quantum private comparison for next-generation mobile network. *IEEE Access, 7,* 17917-17926

25. Farouk, A., Alahmadi, A., Ghose, S., & Mashatan, A. (2020). Blockchain platform for industrial healthcare: Vision and future opportunities. *Computer Communications, 154,* 223-235.

26. Zhu, F., Zhang, C., Zheng, Z., & Farouk, A. (2021). Practical Network Coding Technologies and Softwarization in Wireless Networks. *IEEE Internet of Things Journal, 8*(7), 5211-5218.

27. D.K. Sharma, B. Singh, R. Regin, R. Steffi and M.K. Chakravarthi, "Efficient Classification for Neural Machines Interpretations based on Mathematical models," *2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS),* 2021, 2015-2020, doi: 10.1109/ICACCS51430.2021.9441718.

28. Ujjainiya, L., & Chakravarthi, M.K. (2015). Raspberry-Pi based cost effective vehicle collision avoidance system using image processing. *ARPN J. Eng. Appl. Sci, 10*(7).

29. Chakravarthi, M.K., Tiwari, R.K., & Handa, S. (2015). Accelerometer based static gesture recognition and mobile monitoring system using neural networks. *Procedia Computer Science, 70,* 683-687.

30. Chakravarthi, M.K., Pannem, V.K., & Venkatesan, N. (2014). Real time implementation of gain scheduled controller design for higher order nonlinear system using LabVIEW. *International Journal of Engineering and Technology, 6*(5), 2031-2038.

31. Chakravarthi, M.K., & Venkatesan, N. (2015). Experimental validation of a multi model PI controller for a non linear hybrid system in LabVIEW. *Telkomnika, 13*(2), 547.

32. Chakravarthi, M.K., Gupta, K., Malik, J., & Venkatesan, N. (2015). Linearized PI controller for real-time delay dominant second order nonlinear systems. *In 2015 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT),* 236-240.

33. Ganesh, D., Naveed, S.M.S., & Chakravarthi, M.K. (2016). Design and Implementation of Robust Controllers for an Intelligent Incubation Pisciculture System. *Indonesian Journal of Electrical Engineering and Computer Science, 1*(1), 101-108.

34. Pannem, V.K., KalyanChakravarthi, M., & Venkatesan, N. (2015). Validation of integer and fractional order PI controllers for a real time non linear process. In 2015 Global Conference on Communication Technologies (GCCT) (pp. 84-89). IEEE.

35. Mohammed, S., Naveed, S., Chakravarthi, M.K., & Venkatesan, N. (2015, April). Comparative study of controller performance for different real-time hybrid models. *In 2015 Global Conference on Communication Technologies (GCCT),* 39-44.

36. Chakravarthi, M.K., Vinay, P.K., & Venkatesan, N. (2015). Design and simulation of internal model controller for a real time nonlinear process. *Indian Journal of Science and Technology, 8*(19), 1-6.

37. Chakravarthi, M.K., & Venkatesan, N. (2015). Design and Implementation of Lab View Based Optimally Tuned PI Controller for A Real Time Non Linear Process. *Asian Journal of Scientific Research, 8*(1), 95.

38. Venkatasreehari, R., & Chakravarthi, M.K. (2014). Industrial pollution monitoring GUI system using internet, LabVIEW AND GSM. *In 2014 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT),* 787-791.

39. Sekhar, C., Kranthi, K., & Chakravarthi, M.K. (2017). Traffic signal breach vehicle stop system using IOT. *In 2017 International Conference on Nextgen Electronic Technologies: Silicon to Software (ICNETS2),* 296-300.

40. Ujjainiya, L., Chakravarthi, M.K., & Soni, A. (2014). Development and implementation of gesture controlled automatic audio system. *International Journal of Computer Applications, 106*(13).

41. N.A. Jalil, P. Prapinit, M. Melan, and A. Bin Mustaffa, "Adoption of business intelligence - Technological, individual and supply chain efficiency," *in Proceedings - 2019 International Conference on Machine Learning, Big Data and Business Intelligence, MLBDBI* 2019, 2019.

42. N.A. Jalil and H.J. Hwang, "Technological-centric business intelligence: Critical success factors," *Int. J. Innov. Creat. Chang.,* 2019.

43. Chakravarthi, M.K., & Venkatesan, N. (2018). Adaptive type-2 fuzzy controller for nonlinear delay dominant MIMO systems: an experimental paradigm in LabVIEW. *International Journal of Advanced Intelligence Paradigms, 10*(4), 354-373.

44. Ruttala, U.K., Balamurugan, M.S., & Chakravarthi, M.K. (2015). NFC based smart campus payment system. *Indian Journal of Science and Technology, 8*(19).

45. Ganesh, D., & Chakravarthi, M.K. (2014). Remote web based monitoring and controlling of a nonlinear process using micro controller. *In 2014 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT),* 767-770.

46. B. Singh, N.A. Jalil, D.K. Sharma, S.R, K. Kumar and D. Jebakumar immanuel, "Computational systems overview and Random Process with Theoretical analysis," *2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS),* 2021, 1999-2005, doi: 10.1109/ICACCS51430.2021.9441739.

47. Chakravarthi, M.K., & Vinay, P. (2014). LabVIEW based Comparison of various Edge Detection Techniques for Bug Classification. *International Journal of Applied Engineering Research, 9*(19), 6381-6390.

48. N. A. Jalil and K. Kian Yeik, "Systems, design and technologies anxieties towards use of self-service checkout," *in ACM International Conference Proceeding Series,* 2019.

49. Bais, N., Shubha, R., Yamuna, V., & Chakravarthi, M.K. (2018). Smart Mobile Diagnostic Laboratory and Doctor Annunciation System in Ambulances. *In Intelligent Embedded Systems,* 155-162). Springer, Singapore.

50. Esmaeil, J., Rjoub, H., & Wong, W.K. (2020). Do Oil Price Shocks and Other Factors Create Bigger Impacts on Islamic Banks than Conventional Banks?. Energies, 13(12), 3106.

51. Jolly, A.R., & Chakravarthi, M.K. (2016). A standalone data logger for fibre optic vibration measurement system using Beaglebone. *In 2016 10th International Conference on Intelligent Systems and Control (ISCO),* 519-522.

52. Alwreikat, A.A., & Rjoub, H. (2020). Impact of mobile advertising wearout on consumer irritation, perceived intrusiveness, engagement and loyalty: A partial least squares structural equation modelling analysis. *South African Journal of Business Management, 51*(1), 11.

53. Kumar, V.S., & Chakravarthi, M.K. (2016). MSP430 data logger: An implementation for stress measurement in concrete structures. *In 2016 10th International Conference on Intelligent Systems and Control (ISCO),* 1-4.

54. Alhodiry, A., Rjoub, H., & Samour, A. (2021). Impact of oil prices, the US interest rates on Turkey's real estate market. New evidence from combined co-integration and bootstrap ARDL tests. *Plos one, 16*(1), e0242672.

55. Supritha, R., Chakravarthi, M.K., & Ali, S.R. (2016). An Embedded Visually Impaired Reconfigurable Author Assistance System Using LabVIEW. *In Microelectronics, Electromagnetics and Telecommunications,* 429-435). Springer, New Delhi.

56. Yıldız, B.F., Hesami, S., Rjoub, H., & Wong, W.K. (2021). Interpretation of Oil Price Shocks on Macroeconomic Aggregates of South Africa: Evidence From SVAR. *Journal of Contemporary Issues in Business and Government, 27*(1), 279-287.

57. Ganesh, D., Naveed, S.M.S., & Chakravarthi, M.K. (2016). Design and Implementation of Robust Controllers for an Intelligent Incubation Pisciculture System. *Indonesian Journal of Electrical Engineering and Computer Science, 1*(1), 101-108.

58. Shaheen, R., Ağa, M., Rjoub, H., & Abualrub, A. (2020). Investigation of the Pillars of Sustainability Risk Management as an Extension of Enterprise Risk Management on Palestinian Insurance Firms' Profitability. *Sustainability, 12*(11), 4709.

59. Chakravarthi, M.K., Gupta, K., Malik, J., & Venkatesan, N. (2015). Linearized PI controller for real-time delay dominant second order nonlinear systems. *In 2015 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT),* 236-240.

60. Hesami, Siamand, Bezhan Rustamov, Husam Rjoub, and Wing-Keung Wong. "Implications of Oil Price Fluctuations for Tourism Receipts: The Case of Oil Exporting Countries." *Energies,* 13(17) (2020): 4349.

61. Chakravarthi, M.K., & Venkatesan, N. (2015). Design and Implementation of Adaptive Model Based Gain Scheduled Controller for a Real Time Non Linear System in LabVIEW. *Research Journal of Applied Sciences, Engineering and Technology,* 10(2), 188-196.

62. Ibnou-Laaroussi, S., Rjoub, H., & Wong, W.K. (2020). Sustainability of Green Tourism Among International Tourists and Its Influence on the Achievement of Green Environment: Evidence from North Cyprus. *Sustainability, 12*(14), 5698.

63. A.K. Gupta, , T. Maity, H. Anandakumar, and Y.K Chauhan, "An electromagnetic strategy to improve the performance of PV panel under partial shading," *Computers & Electrical Engineering,* 90, 106896. 2021.

64. Alfadli, A., & Rjoub, H. (2020). The impacts of bank-specific, industry-specific and macroeconomic variables on commercial bank financial performance: evidence from the Gulf cooperation council countries. *Applied Economics Letters, 27*(15), 1284-1288.

65. Bharat, P.V., & Chakravarti, M. (2014). RF harvesting circuitry for ambient backscatter technology. *International Journal of Applied Eengineering Research,* 5769-5778.

66. Alkhurshan, M., & Rjoub, H. (2020). The scope of an integrated analysis of trust switching barriers, customer satisfaction and loyalty. *Journal of Competitiveness, 12*(2), 5.

67. A.K. Gupta, Y.K. Chauhan, and T Maity, "Experimental investigations and comparison of various MPPT techniques for photovoltaic system," *Sādhanā,* 43(8), 1-15, 2018.

68. Erülgen, A., Rjoub, H., & Adalıer, A. (2020). Bank Characteristics Effect on Capital Structure: Evidence from PMG and CS-ARDL. *Journal of Risk and Financial Management, 13*(12), 310.

69. Chakravarthi, M.K., & Bharath, B. (2012). DIP coated thick films of ZNO and its ethanol sensing properties. *In 2012 8th International Symposium on Mechatronics and its Applications,* 1-5.

70. Chakravarthi, M.K., Watekar, P.R., Babu, A V., Sateesh, M., & Reddy, P.V. Optimization of Silica Glass Micro Fiber for Zero Dispersion Wavelength. *In National Conference on Innovative Paradigms in Engineering Technology (NCIPET-2012) Proceedings.*

71. A.K. Gupta, "Sun Irradiance Trappers for Solar PV Module to Operate on Maximum Power: An Experimental Study," *Turkish Journal of Computer and Mathematics Education (TURCOMAT),* 12(5), 1112-1121, 2021.

72. Manne, R., & Kantheti, S.C. (2021). Application of Artificial Intelligence in Healthcare: Chances and Challenges. *Current Journal of Applied Science and Technology, 40*(6), 78-89. https://doi.org/10.9734/cjast/2021/v40i631320

73. N.A. Jalil, H.J. Hwang, and N.M. Dawi, "Machines learning trends, perspectives and prospects in education sector," in ACM International Conference Proceeding Series, 2019.

74. A.K. Gupta, Y.K Chauhan, and T Maity and R Nanda, "Study of Solar PV Panel Under Partial Vacuum Conditions: A Step Towards Performance Improvement," *IETE Journal of Research,* 1-8, 2020.

75. M.V. Karthik, M.K. Chakravarthi, L.M. Yapanto, D. Selvapandian, R. Harish and K. Subramani, "Optical Analysis of the UPQC using PI Controller in Power flow System," *2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS),* 2021, 2006-2010.

76. doi: 10.1109/ICACCS51430.2021.9441901

77. A.K. Gupta, Y.K Chauhan, and T Maity, "A new gamma scaling maximum power point tracking method for solar photovoltaic panel Feeding energy storage system," *IETE Journal of Research,* 67(1), 1-21, 2018.

78. M.P. Sathyaseelan, M.K. Chakravarthi, A.P. Sathyaseelan and S. Sudipta, "IoT based COVID De-Escalation System using Bluetooth Low Level Energy," *2021 6th International Conference on Inventive Computation Technologies (ICICT),* 2021, 174-177.

79. doi: 10.1109/ICICT50816.2021.9358718.

80. D.K. Sharma, B. Singh, R. Regin, R. Steffi and M.K. Chakravarthi, "Efficient Classification for Neural Machines Interpretations based on Mathematical models," *2021 7th International Conference on Advanced Computing and Communication Systems (ICACCS),* 2021, 2015-2020, doi: 10.1109/ICACCS51430.2021.9441718

81. C.H.R. Prasad and M.K. Chakravarthi, "Failure analysis and prediction for metal jobs using fuzzy computation," *2017 International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT),* 2017, 1159-1163.

82. doi: 10.1109/ICICICT1.2017.8342734.

83. M.K. Chakravarthi, B. Bharath and R.V. Sreehari, "Implementation of an automated drug delivery system using linear actuator," *2015 International Conference on Soft Computing Techniques and Implementations (ICSCTI),* 2015, 90-93

84. doi: 10.1109/ICSCTI.2015.7489571.

85. S. Mohammed, S. Naveed, M.K. Chakravarthi and N. Venkatesan, "Comparative study of controller performance for different real-time hybrid models," *2015 Global Conference on Communication Technologies (GCCT),* 2015, 39-44.

86. doi: 10.1109/GCCT.2015.7342620.

87. V.K. Pannem, M. KalyanChakravarthi and N. Venkatesan, "Validation of integer and fractional order PI controllers for a real time non linear process," *2015 Global Conference on Communication Technologies (GCCT),* 2015, 84-89.

88. doi: 10.1109/GCCT.2015.7342628.

89. M.K. Chakravarthi, B. Bharath and R.V. Sreehari, "Implementation of an automated drug delivery system using linear actuator," *2015 International Conference on Soft Computing Techniques and Implementations (ICSCTI),* 2015, 90-93.

90. doi:10.1109/ICSCTI.2015.7489571.

91. U. Zulfiqar, S. Mohy-Ul-Din, A. Abu-Rumman, A.E.M. Al-Shraah, and I. Ahmed, "Insurance-Growth Nexus: Aggregation and Disaggregation," *The Journal of Asian Finance, Economics and Business,* vol. 7, no. 12, pp. 665–675, Dec. 2020. https://doi.org/10.13106/jafeb.2020.vol7.no12.665

92. Al-Shqairat, Z.I., Al Shraah, A.E.M., Abu-Rumman, A., "The role of critical success factors of knowledge stations in the development of local communities in Jordan: A managerial perspective," *Journal of management Information and Decision Sciences,* vol. 23, no.5, pp. 510-526, Dec. 2020. DOI: 1532-5806-23-5-218

93. Pandya, S.; Ambient Acoustic Event Assistive Framework for Identification, Detection, and Recognition of Unknown Acoustic Events of a Residence, Advanced Engineering Informatics. Elsevier.

94. (http://www.sciencedirect.com/science/article/pii/S147403462030207X)

95. Ghayvat, H.; Pandya, S.; Awais, M. ReCognizing SUspect and PredictiNg ThE SpRead of Contagion Based on Mobile Phone LoCation DaTa: A System of identifying COVID-19 infectious and hazardous sites, detecting disease outbreaks based on internet of things, edge computing and artificial intelligence, *Sustainable Cities and Society*

96. Pandya S, Wakchaure MA, Shankar R, Annam JR. Analysis of NOMA-OFDM 5G wireless system using deep neural network. *The Journal of Defense Modeling and Simulation.* 2021. doi:10.1177/1548512921999108.

97. Awais, M.; Ghayvat, H.; Krishnan Pandarathodiyil, A.; Nabillah Ghani, W.M.; Ramanathan, A.; Pandya, S.; Walter, N.; Saad, M.N.; Zain, R.B.; Faye, I. Healthcare Professional in the Loop (HPIL): Classification of Standard and Oral Cancer-Causing Anomalous Regions of Oral Cavity Using Textural Analysis Technique in Autofluorescence Imaging. *Sensors,* 2020, 20, 5780. https://doi.org/10.3390/s20205780

98. Patel, C.I.; Labana, D.; Pandya, S.; Modi, K.; Ghayvat, H.; Awais, M. Histogram of Oriented Gradient-Based Fusion of Features for Human Action Recognition in Action Video Sequences. *Sensors* 2020, 20, 7299. https://doi.org/10.3390/s20247299

99. Ghayvat, H.; Awais, M.; Pandya, S.; Ren, H.; Akbarzadeh, S.; Chandra Mukhopadhyay, S.; Chen, C.; Gope, P.; Chouhan, A.; Chen, W. Smart Aging System:

Uncovering the Hidden Wellness Parameter for Well-Being Monitoring and Anomaly Detection. *Sensors* 2019, 19, 766. https://doi.org/10.3390/s19040766.

100.   Barot, V., Kapadia, V., & Pandya, S., QoS Enabled IoT Based Low Cost Air Quality Monitoring System with Power Consumption Optimization, *Cybernetics and Information Technologies,* 2020, 20(2), 122-140. doi:https://doi.org/10.2478/cait-2020-0021.

101.   Rao, A.N., Vijayapriya, P., Kowsalya, M., & Rajest, S.S. (2020). Computer Tools for Energy Systems. *In International Conference on Communication, Computing and Electronics Systems,* 475-484. Springer, Singapore.

102.   Gupta J., Singla M.K., Nijhawan P., Ganguli S., Rajest S.S. (2020) An IoT-Based Controller Realization for PV System Monitoring and Control. In: Haldorai A., Ramu A., Khan S. (eds) *Business Intelligence for Enterprise Internet of Things. EAI/Springer Innovations in Communication and Computing.* Springer, Cham

103.   Sharma M., Singla M.K., Nijhawan P., Ganguli S., Rajest S.S. (2020) An Application of IoT to Develop Concept of Smart Remote Monitoring System. In: Haldorai A., Ramu A., Khan S. (eds) *Business Intelligence for Enterprise Internet of Things. EAI/Springer Innovations in Communication and Computing.* Springer, Cham

104.   Ganguli S., Kaur G., Sarkar P., Rajest S.S. (2020) An Algorithmic Approach to System Identification in the Delta Domain Using FAdFPA Algorithm. In: Haldorai A., Ramu A., Khan S. (eds) Business Intelligence for Enterprise Internet of Things. *EAI/Springer Innovations in Communication and Computing.* Springer, Cham

105.   Singla M.K., Gupta J., Nijhawan P., Ganguli S., Rajest S.S. (2020) Development of an Efficient, Cheap, and Flexible IoT-Based Wind Turbine Emulator. In: Haldorai A., Ramu A., Khan S. (eds) Business Intelligence for Enterprise Internet of Things. *EAI/Springer Innovations in Communication and Computing.* Springer, Cham

106.   Rajasekaran R., Rasool F., Srivastava S., Masih J., Rajest S.S. (2020) Heat Maps for Human Group Activity in Academic Blocks. In: Haldorai A., Ramu A., Khan S. (eds) *Business Intelligence for Enterprise Internet of Things. EAI/Springer Innovations in Communication and Computing.* Springer, Cham

107. Sur, A., Sah, R., Pandya, S., Milk storage system for remote areas using solar thermal energy and adsorption cooling, *Materials Today,* 28(Part 3), 2020, Elsevier, Pages 1764-1770, ISSN 2214-7853, https://doi.org/10.1016/j.matpr.2020.05.170.

108. H. Ghayvat, Pandya, S., and A. Patel, "Deep Learning Model for Acoustics Signal Based Preventive Healthcare Monitoring and Activity of Daily Living," *2nd International Conference on Data, Engineering and Applications (IDEA), Bhopal,* India, 2020, 1-7. doi: 10.1109/IDEA49133.2020.9170666

109. Pandya, S., Shah, J., Joshi, N., Ghayvat, H., Mukhopadhyay, S.C. and Yap, M.H., 2016, November. A novel hybrid based recommendation system based on clustering and association mining. *In Sensing Technology (ICST), 2016 10th International Conference on,* 1-6. IEEE.

110. Pandya, S., W. Patel, H. Ghayvat, "NXTGeUH: Ubiquitous Healthcare System for Vital Signs Monitoring & Falls Detection", *IEEE International Conference, Symbiosis International University,* December 2018.

111. S. Suman Rajest, D.K. Sharma, R. Regin and Bhopendra Singh, "Extracting Related Images from E-commerce Utilizing Supervised Learning", *Innovations in Information and Communication Technology Series,* 033-045, 28 February, 2021.

112. Souvik Ganguli, Abhimanyu Kumar, Gagandeep Kaur, Prasanta Sarkar and S. Suman Rajest, "A global optimization technique for modeling and control of permanent magnet synchronous motor drive", *Innovations in Information and Communication Technology Series,* 074-081, 28 February, 2021.

113. Jappreet Kaur, Tejpal Singh Kochhar, Souvik Ganguli and S. Suman Rajest, "Evolution of Management System Certification: An overview", *Innovations in Information and Communication Technology Series,* 082-092, 28 February, 2021.

114. R. Regin, S. Suman Rajest and Bhopendra Singh, "Spatial Data Mining Methods Databases and Statistics Point of Views", *Innovations in Information and Communication Technology Series,* 103-109, 28 February, 2021.

115. Ghayvat, H., Pandya, S., "Wellness Sensor Network for modeling Activity of Daily Livings-Proposal and Off-Line Preliminary Analysis" *IEEE International Conference, Galgotias University,* New Delhi, December 2018.

116.   Pandya, S., Ghayvat, H., Shah, J., Joshi, N., A Novel Hybrid based Recommendation System based on Clustering and Association Mining, *10th IEEE International Conference on Sensing technology and Machine Intelligence (ICST-2016),* Nanjing, China, November 2016.

117.   Pandya, S., W. Patel, An Adaptive Approach towards designing a Smart Health-care Real-Time Monitoring System based on IoT and Data Mining, *3rd IEEE International Conference on Sensing technology and Machine Intelligence (ICST-2016),* Dubai, November 2016.

118.   Pandya, S., Ghayvat, H., Kotecha, K., Wandra, K., Advanced AODV Approach For Efficient Detection And Mitigation of Wormhole Attack IN MANET, 10th IEEE *International Conference on Sensing technology and Machine Intelligence (ICST-2016),* Nanjing, China, November 2016.

119.   Pandya, S., H. Dandvate ―New Approach for frequent item set generation based on Mirabit Hashing Algorithm, *IEEE International Conference on Inventive Computation technologies (ICICT),* 26 August, India, 2016.

120.   Pandya, S., Patel, W., Mistry, V., i-MsRTRM: Developing an IoT based iNTELLIGENT Medicare System for Real-time Remote Health Monitoring, *8th IEEE International Conference on Computational Intelligence and Communications Networks (CICN-2016),* Tehari, India, 23-25th December 2016.

121.   Pandya, S., Shah, J., Joshi, N., Ghayvat, H., Mukhopadhyay, S.C. and Yap, M.H., 2016, November. A novel hybrid based recommendation system based on clustering and association mining. In Sensing Technology (ICST), 2016 10th International Conference on (pp. 1-6). IEEE.

122.   Pandya, S., Vyas, D. and Bhatt, D., A Survey on Various Machine Learning Techniques‖, International Conference on Emerging trends in Scientific Research (ICETSR-2015), ISBN no: 978-81-92346-0-5, 2015.

123.   Pandya, S., Wandra, K., Shah, J., A Hybrid Based Recommendation System to overcome the problem of sparcity, *International Conference on emerging trends in scientific research,* December, 2015.

124.   Mehta, P., Pandya, S., A review on sentiment analysis methodologies, practices and applications, *International Journal of Scientific and Technology Research,* 2020, 9(2), 601–609

125.   G.A. Ogunmola, B. Singh, D.K. Sharma, R. Regin, S. S. Rajest and N. Singh, "Involvement of Distance Measure in Assessing and Resolving Efficiency Environmental Obstacles," *2021 International Conference on Computational Intelligence and Knowledge Economy (ICCIKE),* 2021, 13-18, doi: 10.1109/ICCIKE51210.2021.9410765