

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 8, Issue 1, January 2019

Network Optimization and Evolution to Bigdata Analytics Techniques

Anitha Eemani¹

SR JAVA/J2EE Developer, SALESFORCE, Bellevue, USA¹

ABSTRACT: Big Data is an arising idea that describes innovative methods and also modern technologies to assess big volume of complicated datasets that are greatly created from numerous sources and with numerous prices. Data mining strategies are offering terrific aid in the location of Big Data analytics, considering that handling Big Data allow challenges for the applications. Big Data analytics is the capability of removing helpful information from such significant datasets. This paper provides an overview of big data analytics.

KEYWORDS: Data Mining, Big Data, KDD

I. INTRODUCTION

Big Data is the term for a collection of data collections so large and also facility that it comes to be difficult to procedure using conventional data mining techniques and also tools. The total goal of the big data analytics is to remove useful info from a big data collection and also transform it into an easy to understand structure for further use. The significant procedures of big data consist of capture, curation, storage, search, sharing, transfer, analysis, as well as visualization.

Lately the value of this field has actually drawn in substantial attention due to the fact that it offers organizations beneficial information and far better insight of both structured and also disorganized data, which might lead to much better- educated decision-making. In a business context, big data analytics is the procedure of analyzing "big data" sets to discover surprise patterns, unknown relationships, market trends, customer choices as well as various other valuable business info. Today's breakthroughs in modern technology incorporated with the recent advancements in data analytics formulas as well as strategies have actually made it feasible for organizations to capitalize big data analytics. A few of the significant concerns in using big data analytics efficiently consist of data quality, storage, visualization and processing.

Some business instances of big data are social networks content, cellphone information, transactional data, wellness documents, monetary files, Internet of points and also weather condition info.

Data Mining is defined as non-trivial extraction of implicit, formerly unknown, possibly useful info from data. It uses statistical, visualization as well as artificial intelligence methods to uncover and present understanding in a type which is easily easy to understand to humans. Data Mining is the process of expedition and analysis of huge quantities of data in order to find purposeful patterns as well as rules by automated or semi automatic methods. Without automation it is difficult to mine huge quantities of data. In huge databases, data mining resolves the problem to uncover the surprise yet beneficial understanding from data, which can help in the government and also enterprises to make decisions so as to get even more benefit from it. Data Mining is also known as Knowledge Discovery Databases-KDD.

Knowledge Discovery process (KDD).

The various steps in the KDD process are explained listed below as well as displayed in Figure 1.

Data Integration-The data is integrated from a combination of numerous sources of data.

Data Selection and also cleaning-The data relevant for evaluation is obtained from the data source as well as sound and also irregular data is gotten rid of.

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 8, Issue 1, January 2019

Data Transformation-This action involves combination as well as change of data right into types appropriate for mining e.g., by executing aggregation of recap of data.

Data Mining- This is the most crucial action and it is done by use of smart patterns from data.

Pattern Evaluation-Evaluation consists of recognition of patterns that is intriguing.

Understanding Presentation- To offer the removed or extracted understanding throughout individual numerous visualization as well as knowledge depiction technique is utilized.

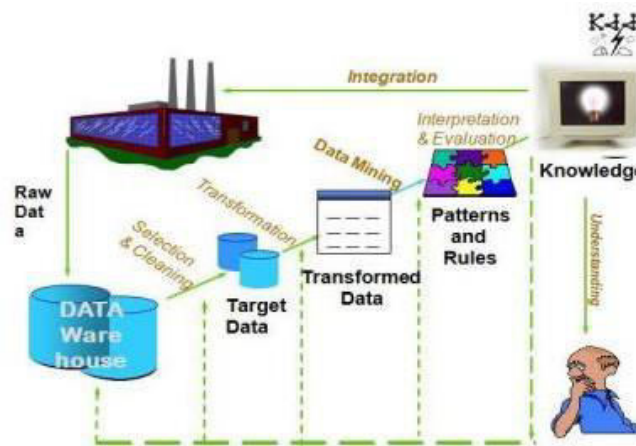


Figure 1 : Steps in KDD process

II. EVOLUTION TO BIG DATA ANALYTICS TECHNIQUES

The term 'Big Data' appeared for first time in 1998 in a Silicon Graphics (SGI) slide deck by John Mashey with the title of "Big Data as well as the Next Wave of InfraStress". Big Data mining was really relevant from the beginning, as the first book mentioning 'Big Data' is a data mining publication that appeared additionally in 1998 by [3] Nonetheless, the first scholastic paper with words 'Big Data' in the title appeared a bit later on in 2000 in a paper by [2] The beginning of the term 'Big Data' is due to the truth that we are creating a substantial amount of data everyday. [1] in his welcomed talk at the KDD BigMine' 12Workshop offered outstanding data numbers concerning web use, among them the following: each day Google has more than 1 billion inquiries daily, Twitter has more than 250 million tweets per day, Facebook has more than 800 million updates per day, as well as YouTube has greater than 4 billion views per day. The data created nowadays is approximated in the order of zettabytes, and also it is expanding about 40% yearly. A brand-new big resource of data is going to be created from mobile phones, and big business as Google, Apple, Facebook, Yahoo, Twitter are starting to look carefully to this data to locate valuable patterns to enhance user experience.

Evaluating huge amounts of data enables experts, researchers, and business individuals to make better and quicker choices utilizing data that were previously not evident before, hard to reach, or pointless. Nonetheless, the dramatically increase of data amounts have made the well-known data mining formulas unsuitable for such data sizes. For that reason, numerous researches have actually presently been routed towards the improvements that can be presented to data mining techniques in order to handle big data, where big data analytics area has actually emerged. Big data analytic strategies are worried about several data mining functions, where one of the most important functions are: association policies mining as well as classification tree analysis. In this area, we examine the primary data mining tasks that have actually been taken on to big data analytic strategies, clarifying the enhancements that have actually been presented to accomplish such fostering, along with the "V" measurement of big data that has been handled by such adjustments. Table 1 represents our

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 8, Issue 1, January 2019

extensive summary of the evaluation done for the development of data mining tasks to big data analytics. Techniques are organized according to their data mining job. The table presents the status of each method whether it has actually been developed to big data analytics and the dimension of big data that is taken care of by this established technique. The complying with sub-sections define the improvements that have actually been introduced to the various data mining methods to manage the dimensions of big data in order to evolve to big data analytic techniques.

S. No	Data Mining Task	Technique to be used	Developed to big data analytics	Dimensions covered
1	Classification	K-nearest neighbour	Y	Volume & Variety
		Decision Tree	Y	Volume, Velocity & Variety
		Support Vector Machine	N	Volume, Velocity & Variety
		Naïve Bayes Classifier	N	Volume, Velocity & Variety
		Ripper	N	Volume, Velocity & Variety
		Neural Network	Y	Volume
2	Association Mining	Apriori	Y	Volume & Velocity
		FP Growth	Y	Velocity
3	Clustering	K-Means Clustering	Y	Volume
		K-Medoids	N	Volume
4	Optimization	Genetic Algorithm	N	-
		Sampling Techniques	N	-
		Bagging	N	-
5	Classifiers Ensembles	Random Forest	N	-
		Rotation Forest	N	-

Table 1 : Evolution of Data Mining Technique to Big Data Analytics

III. INTEGRATING DATA MINING IN CLOUD COMPUTING

Data mining techniques and also application are extremely crucial in cloud computing area. The procedure of removing structured information from unstructured or semi-structured internet data sources is called data mining. The assimilation of data mining in Cloud Computing permits organizations to streamline the monitoring of software as well as data storage, with guarantee of reliable, safe and secure as well as reliable services for their customers. It is explored that just how the data mining tools like SaaS, PaaS and IaaS are made use of in cloud computing to extract the info. Data mining in cloud is used for analyzing and removing the valuable info in many locations of human activities like financial, medical, advertising and marketing and so on. With this application one can find the wanted information regarding consumer's habits, their habits, passions as well as location with just a couple of clicks of computer mouse. Cloud gives an advantage for little sized business to have an opportunity to rent out a cloud service for efficient evaluation of all the data in the organization which was earlier reserved only for big firms.

Data Mining is preferably used for a huge amount of data and also related algorithms often need large data sets to produce top quality designs. Cloud companies make use of data mining to provide clients much better service. Using data mining approaches in cloud computing permits the customers to remove useful details from basically incorporated data sources that minimizes the facilities and also storage space prices.

Cloud Computing symbolizes the new trend in Internet solutions that is based on clouds of web servers to manage tasks. Data mining in cloud computing is the procedure of extracting organized info from disorganized or semi-structured web data resources. As Cloud computing refers to software application and equipment delivered as solutions over the Internet, in Cloud computing data mining software is additionally offered in this way.

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 8, Issue 1, January 2019

The following are the benefits of the integrated data mining and also cloud computing setting.

- The customer only pays for the data mining devices that he needs.
- The client doesn't need to maintain a hardware facilities as he can use data mining through an internet browser.
- Repetitive robust storage space.
- Digital computer systems that can be begun with short notice.
- No inquiry structured data.
- Message line up for communication.

IV. ROLE OF BIG DATA ANALYTICS IN CELLULAR NETWORK DESIGN

In this section, we assess the research study done on using big data analytics for the layout of cellular networks. Compared to other network layout subjects, we observed that the wireless area has received one of the most interest, as gauged by its share of study documents. These papers can be categorized according to the application or location under investigation. Subsequently, we have actually categorized those documents right into the following:

1. Counter-failure-related: This includes mistake resistance (i.e. detection and also improvement), prediction, and also avoidance techniques that use big data analytics in mobile networks.
2. Network tracking: This illustrates how big data analytics can be helpful as a large tool for data web traffic surveillance in cellular networks.
3. Cache-related: Investigates exactly how big data analytics can be used for web content distribution, cache node placement and also circulation, location-specific web content caching, and also positive caching.
4. Network optimization: Big data analytics can be associated with several subjects consisting of predictive wireless source allowance, interference avoidance, optimizing the network taking into account Quality of Experience (QoE), as well as adaptable network planning in light of usage forecast.

V. NETWORK OPTIMIZATION

Big data-driven mobile network optimization structure When thinking about optimizing a cellular network, it is essential to gather as much info as possible. Large networks, along with their customers, create a plethora of data, for which using big data analytics is important to evaluate the gigantic amount.

The writers in [3] proposed a mobile network optimization framework that allows Data Driven (BDD). This framework includes a number of phases, starting from the collection of big data, managing storage space, executing data analytics, and the last stage of the procedure is the network optimization.

3 case studies were made use of to show that the recommended framework could be utilized for mobile network optimization.

1-Managing sources in HetNets:

The Mobile Network Operators (MNOs) may utilize big data to supply actual time and history analysis throughout customers, mobile networks, and provider. MNOs can gain from BDD methods in the procedure and release of their network, and this can be performed in numerous stages:

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 8, Issue 1, January 2019

A. Network Planning: Due to a shortage in the degree of adequate statistical data, evolved Node B (eNB) sites are not optimally enhanced, this can be taken care of if a sufficient quantity of details (customer as well as network) is offered evaluations. Big data analytics can aid MNOs reach far better choices worrying the release of eNB in the mobile network. The writers in [5] recommended using the network and also anonymous customers' data (e.g., dynamic position info and other service attributes). Supplying a connection in between the data as well as their events can provide a far better understanding of the website traffic fads. Big data collections supply workable expertise to get to an ideal choice concerning exactly how and where to release eNBs in the network. An additional important feature is the ability to plan for future investments depending on the anticipated traffic fads.

B. Predictive Resource Allocation: Resource needs alter depending upon the density as well as usage patterns of mobile network customers. Predicting where and also when mobile users are utilizing the network can assist in planning for abrupt substantial traffic fluctuations. The authors in [3] recommended the use of big data analytics to analyze behavioral and sentiment data from socials media as well as various other sources. They also revealed a rate of interest in making use of present and historical data to predict the traffic in very booming locations within the network.

C. Interference Coordination: HetNets with small cells can be made use of to perform disturbance coordination amongst macro and also little cells. This coordination has to be accomplished while domain name rather than the regularity domain. Systems like the enhanced Inter-Cell Interference Coordination (eICIC) in LTE-Advanced successfully allow resource allowance amongst interfering cells, in addition to improving the inter-cell load balancing in the HetNets. eICIC enables Macro cells developed Node B (MeNB) and also its nearby Small cell eNBs (SeNBs) to have data transferred in isolated subframes, hence interference from MeNB to SeNB can be avoided. To apply eICIC, an unique sort of subframe named an Almost Blank Subframe (ABS) that lugs minimum (and also most crucial) control details, was specified. It deserves noting that the ABS subframes are transferred with reduced power, which the network driver can regulate the arrangement of that subframe.

Numerous factors contribute to the resolution of the ABS proportion of the macro cell to the small cell, such as the website traffic lots in a certain area, the service type, and so forth. The optimal ABS ratio varies dynamically, and also this is due to the fact that inter-cell interference adjustments with time for the aspects pointed out over.

In a BDD system, enhancing the radio resource allocation can be achieved via the use of network analytics. The deployment of BDD optimization operates at the MeNB would allow them to collect and also analyze eNB-originated raw big data (e.g., service qualities and traffic attributes) in real-time, therefore allowing a quick reaction. As a result, the performance optimization of each cell and the individuals can be fulfilled.

Optimizing ICIC parameters (e.g., ABS ratio) can be attained by refining raw data in a regular fashion to get stats as well as to discover web traffic variants automatically.

VI. BIG DATA TECHNOLOGIES

In order to sustain big data analytics, a computing platform should fulfill the complying with 3 standards, so called 3 Vs as highlighted in Figure 2.

Variety : The system supports wide variety of data as well as makes it possible for ventures to handle this data as is in its initial format, and also with substantial transformation tools to transform it to other desired styles.

Velocity : The platform can handle data at any speed, either low-latency streams, such as sensor or supply data, or large volumes of set data

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 8, Issue 1, January 2019

Volume : The system can take care of huge quantities of at-rest or streaming data.

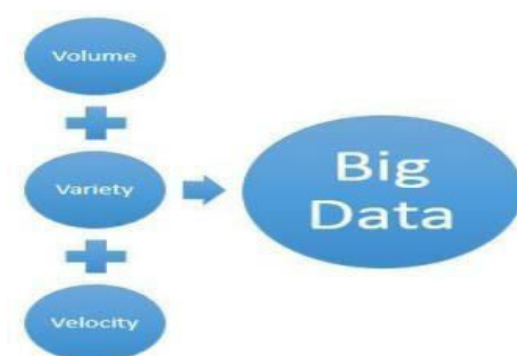


Figure 2 : 3-V Criteria of Big Data

Typical data mining involves locating fascinating patterns from datasets whereas big data analytics entails huge scale storage space and also processing of significant data collections. Traditionally Hadoop and also MapReduce are 2 of the popular innovations for big data analytics.

More tools and also technologies are becoming available for big data handling. Examples include Amazon's Redshift hosted BI data storage facility, Google's BigQuery data analytics solution, IBM's Bluemix cloud platform and also Amazon's Kinesis data processing solution. The future state of big data will certainly be a hybrid of on- premises and also cloud, Alternatives to standard SQL-based relational databases, called NoSQL (Not Only SQL) databases, are rapidly getting appeal as tools for use in certain type of big data analytic applications.

VII. BIG DATA ANALYTICS IN THE INDUSTRY

Throughout our survey, we found several firms that supply network solutions based on huge data analytics. These companies as well as options are highlighted in Table 2. It must be kept in mind that these options are allowed by research carried out in their corresponding areas. We have added academic research papers related to each option in Table 2. Due to the proprietary nature of commercial products, the precise algorithms or methods behind these products is not available outdoors literature. Therefore, scholastic documents with associated idea(s) are mentioned. NetReflex IP and also NetReflex MPLS utilizes large information analytics to give solutions like anomaly evaluation and website traffic evaluation. Nokia gave numerous remedies targeting the cordless area. For instance, Traffica presents itself as a real-time web traffic monitoring device that assesses individual behavior to acquire network insights, comparable techniques were presented in academia. The Wireless Network Guardian finds customer abnormalities in mobile networks where a similar subject was discussed in [6] Preventive Complaint Analysis makes use of large information analytics to find behavior anomalies in mobile network elements where the authors in provided a comparable strategy.

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 8, Issue 1, January 2019

No.	Manufacturer	Solution Name	Usage, Functions and Capabilities
1	Juniper	NetReflex IP	Eliminates network errors. Monitors QoS/QoE. Capacity planning, traffic routing, caching, and other optimizations.
		NetReflex MPLS	Segment and trend MPLS and VPN usage to plan for congestion. Identifies traffic utilization and trends to optimize operational cost. Ability to slice network performance according to VPN, Cost of Service (CoS), and Provider Edge (PE)-PE enabling more efficient planning.
2	Nokia	Trafica	Real-time issues detection and network troubleshooting. Gain real-time, end-to-end insight on traffic, network, devices, and subscribers.
		Wireless Network Guardian	Improves end-to-end network analytics and reporting with real-time subscriber-level information. Detects anomalies and reports airtime, signaling, and bandwidth resource consumption. Proactive detection of issues, including automatic detection of user anomalies and low QoE score alerts.
		Preventive Complaint Analysis	Detects network elements' behavior anomalies. Predicting where customer complaints might arise and prioritizes network optimization accordingly.
		Predictive Care	Used for network elements, and proved its effectiveness by helping Shanghai Mobile become more agile and responsive. Accuracy of the simplified alerts is around 98 percent, reducing operational workload.
3	HP (HPE)	Vertica	Provides CDR analysis that can help Communication Service Providers (CSPs). Examines dropped call records and other maintenance data to determine where to invest in infrastructure. Failure prediction and proactive maintenance.
4	Amdocs	Deep Network Analytics	Combines RAN information with BSS and customer data to deploy the network proactively. Predictive maintenance.
5	Apervi	Apervi's Real-time Log Analytics Solution (ARLAS)	Collects, aggregates, and stores log data in real-time.

Table 2 : Big data analytics-powered industrial solutions.

Amdoc's Analyzer gives anticipating maintenance and also proactive network implementation for mobile networks. Taking a look at the above remedies, one can keep in mind that most of the remedies remain in the wireless field. This, as a matter of fact, coincides with the orientation of the academically-researched subjects. Tasting via the provided remedies, we saw the raised rate of interest in anomaly forecast as well as network node release. Therefore, supplying the client a solution that is as near optimum as possible, while lessening network growth expenditures.

VII. CONCLUSION

Text analytics which is thought about to be the future generation of Big Data, now much more commonly recognized as mainstream analysis to acquire helpful understanding from countless point of view shared on social media. The video, audio and also picture analytics strategy has scaled with advancements in device vision, multi-lingual speech recognition as well as rules-based decision engines as a result of the extreme passion presence of actual time information of rich picture and video clip content. They are the prospective options to cost- effective, political and also social problems. This paper provides a brief overview of big data analytics.

REFERENCES

1. S. Vikram Phaneendra as well as E.Madhusudhan Reddy, Big Data- options for RDBMS complications- A questionnaire, IEEE/IFIP Network Operations & Management Symposium (NOMS 2010), Osaka Japan, Apr 19-23 2013.
2. Sagiroglu, S. and also Sinanc, D., Big Data: A Review, International Conference on Collaboration Technologies and also Systems (CTS), pp. 42-47, 20-24, May 2013.
3. Richa Gupta, Sunny Gupta as well as Anuradha Singhal, Big Data: Overview, IJCTT, Vol 9, Number 5, March 2014.

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 8, Issue 1, January 2019

4. Suthaharan, Shan, "Big data distinction: complications and also problems in system intrusion prophecy with machine learning." ACM SIGMETRICS Performance Evaluation Review 41.4 (2014): 70-73.
5. Sugandhi Maheshwaram, "A Comprehensive Review on the Implementation of Big Data Solutions", International Journal of Information Technology and Management Vol. XI, Issue No. XVII, November-2016,
6. Sugandhi Maheshwaram, "A STUDY ON THE CONCEPT AND EVOLUTION OF MACHINE LEARNING", INTERNATIONAL JOURNAL FOR RESEARCH & DEVELOPMENT IN TECHNOLOGY, Volume-11, Issue-5, May-19
7. Sugandhi Maheshwaram, "A Novel Technique for Preventing the SQL Injection Vulnerabilities", International Journal of Research and Applications, Volume 5, Issue 19, July-Sep 2018
8. Sugandhi Maheshwaram, "A Study on Security Information and Event Management (SIEM)", International Journal of Research and Applications, Volume 5, Issue 17, Jan-Mar 2018
9. Sugandhi Maheshwaram, "Architectural Framework of Cloud Computing Environment", International Journal of Scientific Research in Science, Engineering and Technology, Volume 4, Issue 1, January-February 2018
10. Sugandhi Maheshwaram, "An Overview of Open Research Issues in Big Data Analytics", Journal of Advances in Science and Technology, Vol. 14, Issue No. 2, September-2017
11. Sugandhi Maheshwaram, "A Study on Vulnerabilities, Applications, Advantages and Routing Protocols in MANET", International Journal of Scientific Research in Science and Technology, Volume 4, Issue 1, January-February 2018
12. Sudheer Kumar Shriramoju, "Access Control and Density Based Notion of Clusters", International Journal of Scientific Research in Science and Technology (IJSRST), Online ISSN : 2395-602X, Print ISSN : 2395-6011, Volume 1 Issue 3, pp. 215-220, July-August 2015.
13. Sudheer Kumar Shriramoju, "Review on NoSQL Databases and Key Advantages of Sharepoint", International Journal of Innovative Research in Science, Engineering and Technology, ISSN(Online): 2319-8753, ISSN (Print): 2347-6710, Vol. 7, Issue 11, November 2018.
14. Sudheer Kumar Shriramoju, "Capabilities and Impact of SharePoint On Business", International Journal of Scientific Research in Computer Science, Engineering and Information Technology (IJSRCSEIT), ISSN : 2456-3307, Volume 2, Issue 6, November-December-2017.
15. Sudheer Kumar Shriramoju, "Security Level Access Error Leading to Inference and Mining Sequential Patterns", International Journal of Scientific Research in Science, Engineering and Technology, Volume 2, Issue 4, July-August 2016
16. Sudheer Kumar Shriramoju, "An Overview on Database Vulnerability and Mining Changes from Data Streams", International Journal of Information Technology and Management, Vol. VII, Issue No. IX, August-2014
17. Sudheer Kumar Shriramoju, "Integrating Information from Heterogeneous Data Sources and Row Level Security", Journal of Advances and Scholarly Researches in Allied Education, Vol. IV, Issue No. VIII, October-2012
18. Sudheer Kumar Shriramoju, "A Review on Database Security and Advantages of Database Management System", Journal of Advances in Science and Technology, Vol. V, Issue No. X, August-2013
19. Sudheer Kumar Shriramoju, "Security Challenges of Service and Deployment Models", International Journal of Scientific Research in Science and Technology, Volume 4, Issue 8, May-June 2018
20. Sudheer Kumar Shriramoju, "Cloud security - A current scenario and characteristics of cloud computing", International Journal of Research and Applications, Volume 5, Issue 18, Apr-Jun 2018
21. Sudheer Kumar Shriramoju, "SECURITY ISSUES, THREATS AND CORE CONCEPTS OF CLOUD COMPUTING", Airo International Research Journal, Volume IX, Feb 2017.
22. Malyadri. K, "Architecture and Components of Cloud-Based ML Framework", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 8, Issue 1, January 2019
23. Malyadri. K, "An Overview towards the Different Types of Security Attacks", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 2, Issue 8, August 2014
24. Malyadri. K, "Security Threats, Security Vulnerabilities and Advance Network Security Policies", International Journal of Innovative Research in Science, Engineering and Technology, Vol. 2, Issue 9, September 2013

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 8, Issue 1, January 2019

25. Malyadri. K, "Need for Key Management in Cloud and Comparison of Various Encryption Algorithm", International Journal of Scientific Research in Computer Science, Engineering and Information Technology, volume 1, issue 1, July-August 2016
26. Malyadri. K, "Integration of Appropriate Analytic tools towards Mobile Technology Development", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 6, Issue 6, June 2018
27. Malyadri. K, "A STUDY ON EXPERIENCES AND LIMITATIONS OF MOBILE COMMUNICATION", Alochana Chakra Journal, Volume VI, Issue VIII, August 2017
28. Malyadri. K, "CHALLENGES CONCERNING MOBILE DEVELOPMENT AND MODEL-DRIVEN DEVELOPMENT OF MOBILE APPS", Airo International Research Journal, volume XVI, Nov 2018
29. Malyadri. N. Surya Teja, "Related technologies and the role of mobile app development life cycle", International Journal of Research and Applications, Volume 5, Issue 17, Jan-Mar 2018.
30. Bhagya Rekha Kalukurthi, "A Comprehensive Review on Challenges and Types of Big Data", International Journal of Innovative Research in Science, Engineering and Technology, Vol. 7, Issue 1, January 2018.
31. Rakesh Rojanala, "Generic Working of an Artificial Neuron and Its Output Mathematical Representation", International Journal of Innovative Research in Science, Engineering and Technology, Vol. 8, Issue 1, January 2019.
32. Yeshwanth Valaboju, "A Study on Cryptosystem Types and Cryptographic Principles", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 5, Issue 6, June 2016
33. Rakesh Rojanala, "Components of Data Mining and Big Data Analytics in Intra-Data Center Networks", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 5, Issue 7, July 2016
34. Rakesh Rojanala, "An Overview of Intrusion Detection System and the Role of Data Mining in Information", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 6, Issue 3, March 2017
35. Yeshwanth Valaboju, "Capabilities and Key Benefits of Sap NetWeaver Gateway", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 7, Issue 1, January 2019
36. Rakesh Rojanala, "Machine Learning: Intersection of Statistics and Computer Science", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 5, Issue 8, August 2017
37. Malyadri. K, "A Review on Radio Transmission Technology and Principles of Wireless Networking", International Journal of Scientific Research in Science and Technology, Volume 1, Issue 3, July-August 2015
38. Bhagya Rekha Kalukurthi, "Data Mining Strategy for Discovering Intriguing Patterns and Challenges with Bigdata for Global Pulse Development", International Journal of Scientific Research in Science and Technology, Volume 3, Issue 3, March-April-2017
39. Yeshwanth Valaboju, "A Review on The Database Security Requirements and Guidelines", International Journal of Scientific Research in Science and Technology, Volume 3, Issue 6, July-August 2017
40. Rakesh Rojanala, "Cloud Computing Characteristics and Deployment of Big Data Analytics in The Cloud", International Journal of Scientific Research in Science and Technology, Volume VIII, Issue II, March-April 2014
41. Bhagya Rekha Kalukurthi, "Big Data Classification and Methods of Data Mining, Big Data", International Journal of Scientific Research in Science, Engineering and Technology, Volume 3, Issue 5, July-August 2017
42. Yeshwanth Valaboju, "IOT Communication Technologies and Future of Internet of Things", International Journal of Scientific Research in Computer Science, Engineering and Information Technology, Volume 2, Issue 6, November-December 2017
43. Bhagya Rekha Kalukurthi, "A Study on The Big Data Characteristics", International Journal of Scientific Research in Computer Science, Engineering and Information Technology, Volume 1, Issue 1, July-August 2016
44. Bhagya Rekha Kalukurthi, "Security Vulnerabilities, Security Threats, and Advance Network Security Policies", Journal of Interdisciplinary Cycle Research, Volume VI, Issue I, Jan-June 2014
45. Bhagya Rekha Kalukurthi, "IMPLEMENTATION OF BIG DATA ANALYTICS AND BIG DATAGOVERNANCE", The International journal of analytical and experimental modal analysis, Volume VII, Issue I, May 2015
46. Rakesh Rojanala, "CLOUD COMPUTING ARCHITECTURAL FRAMEWORK", Journal of Interdisciplinary Cycle Research, Volume V, Issue I, Jan-June 2013

International Journal of Innovative Research in Science, Engineering and Technology

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Visit: www.ijirset.com

Vol. 8, Issue 1, January 2019

47. Rakesh Rojanala, "AN OVERVIEW ON CLOUD COMPUTING MODELS AND CLOUD DELIVERY MODELS", The International journal of analytical and experimental modal analysis, Volume IV, Issue I, JAN-JUNE 2012
48. Rakesh Rojanala, "A COMPREHENSIVE STUDY ON THE CHALLENGES OF STREAM DATA MINING AND BIG DATA-ORIENTED STREAM DATA MINING", The International journal of analytical and experimental modal analysis, Volume VII, Issue II, July-December 2015
49. Yeshwanth Valaboju, "A LITERATURE REVIEW ON NEURAL NETWORK ARCHITECTURES", Journal of Interdisciplinary Cycle Research, Volume VII, Issue II, December 2015
50. Yeshwanth Valaboju, "AN OVERVIEW ON THE TYPES OF PASSWORD AND DOS ATTACKS", Journal of Interdisciplinary Cycle Research, Volume IX, Issue XI, November 2018
51. Yeshwanth Valaboju, "AN OVERVIEW ON SAP FIORI DESIGN PRINCIPLES AND FIORI ARCHITECTURE FOR ANALYTICAL APPLICATIONS", The International journal of analytical and experimental modal analysis, Volume X, Issue IX, September 2018