DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IBM – LITERATURE SURVEY

PROJECT TITLE

ANALYTICS FOR HOSPITALS HEALTH CARE DATA

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S.NO	TITLE OF THE PROJECT	ADVANTAGE	DISADVANTAGE	TECHNOLOGY USED
1	A Survey of Big Data Analytics in Healthcare and Government	To successfully identify and implement big data solutions and benefit from the value that big data can bring, government need to devote time, allocate budget and resources to visioning and planning.	The problem is not the lack of data but the lack of information that can be used to support decision making, planning and strategy	Big Data Analytics using Hadoop plays an effective role in performing meaningful real-time analysis on the huge volume of data and able to predict the emergency situations before it happens.
2	A Data Analytics Suite for Exploratory Predictive, and Visual Analysis of Type 2 Diabetes	This offers huge advantage that had not been previously possible for a more personalised approach to treating T2D that will be safer and more beneficial for the patient as it will minimise side effects and offer faster, more effective treatment. It will also provide economic advantages to the healthcare system.	There is need to Building and training the model on larger data bases to increase the prediction accuracy and develop more robust prediction models are achieve effectively.	classification of T2D patients into required categories and identifying associations to a condition of interest, analysis of T2D database to build a predictive model that can assess risk of patients to T2D related complications, and prediction of patients' response to a specific line of treatment plan**.**

3	Healthcare Data Analytics Framework for the Opioid Crisis	Research and prediction of disease. Automation of hospital administrative processes Early detection of disease. Prevention of unnecessary doctor's visits. Discovery new drugs. More accurate calculation of health insurance rates. More effective sharing of patient data	Lack of standardization in toxicology and coding practices among medical examiners and coroners can lead to misclassification of cause of death, poor identification of types of opioids involved in overdoses, and undercounting of intentional poisonings**.**	We then used the Crimson Hexagon platform to collect data based on a search query informed by a drug abuse ontology developed using the identified terms. We subsequently pre-processed the data and examined the quality using an evaluation matrix. Finally, a suitable data analysis approach could be used to analyse the collected data
4	Analysis of Research in Healthcare Data Analytics	The paper has listed some data analytics tools and techniques that have been used to improve healthcare performance in many areas such as: medical operations, reports, decision making, and prediction and prevention system	The problem is how to handle this with older people who are less attached and hard to convince to adopt new healthcare technologies and tools, as they consider this as a medical care issue involving medical staff and excluding their role in the medical care process.	This paper is proposing a technique that will promise to leverage large amount of data properly, since doctors and nurses will be able to determine diseases and risks easily like some certain types of cancer, diabetes and blood pressure, as well as provide needed treatment in the right time.

5	The Use of Real-World Data for Personalized Medicine.	Real-world data by also helps researchers who are interested in less common conditions that aren't as likely to be studied in clinical trials. With access to thousands of patients' data, lack of clinical trials becomes less of a barrier for researchers interested in rare diseases.	Limitations of RWE studies can include low internal validity, lack of quality control surrounding data collection and susceptibility to multiple sources of bias for comparing outcomes.	Big data is already starting to demonstrate its economic and clinical value in the field of personalized medicine. However, to realize its full potential, we post that "Smart data" is a requirement to enable down-stream analysis and extraction of meaningful information.
6	How Data Analytics can help in Decision Making in Healthcare	The advancement of technology and other factors are compelling healthcare providers to adopt advanced communication and collaboration systems across their settings.	The big question in front of these healthcare organizations is how to crunch these numbers and extract meaningful knowledge from health Big Data, identify and develop new decision models and how to manage Big Data	Healthcare providers are adopting healthcare IT solutions such as EMR, EHR and HIE.
7	Big Data analytics for healthcare	One advantage of Cox models is that there is no re-training needed if we change the time of interest (from 30 days to 90 days)	Adding claims data for a partial set of patient	The Performance of regularized Cox algorithms is better than that of simple Cox regression and other standard predictive algorithms
8	Advanced Analytics in Healthcare	Machine learning presents enormous opportunity within the healthcare industry to reduce inefficiency and costs while increasing the quality and accuracy of patient care	The business people, it's often a challenge just to communicate the clinical side in a way that doesn't overwhelm them. But it is a little bit of an art.	Machine learning presents enormous opportunity within the healthcare industry to reduce inefficiency and costs while increasing the quality and accuracy of patient care

9	Proposed Application of Big Data Analytics in Healthcare at Maharaja Yeshwantrao Hospital	Big data is characterized as extremely large data sets that can be analysed computationally to find patter trends, and associations, visualization, querying, information privacy and predictive analytics on large wide spread collection of data	There is a lack of portability of EHRs to all over the country or world for better treatment anywhere anytime without carrying past treatment record of individual	Big data analytics can be done using Hadoop which plays an effective role in performing meaningful real-time analysis on the large volume of this data to predict the emergency situations before it happens.
10	The Impact of Big Data In Healthcare Analytics	We highlighted the shortcoming of the existing Big Data analytics tools in dealing with the evolution of data. The proposed IMP Big Data storage is a promising solution for dealing the heterogeneous health data.	In terms of better query performance and scalability in distributed systems. To proposed prototype will compare the scalability of the proposed framework with the other platform.	This paper aims to present state-of-the-art Big Data analytics tools and presented the Intelligent Medical Platform (IMP) as a case study in dealing with the multimodal data.