LITERATURE SURVEY

[1] H. Khaksar and A. Sheikholeslami, **"Airline delay prediction by machine learning algorithms"**, Scientia Iranica, Transactions A: Civil Engineering 26 (2019) 2689-2702.

Proposed work: This paper proposes a flight delay prediction model through different methods which includes Bayesian modeling, decision tree, cluster classification, random forest, and hybrid methods. These methods were applied to estimate the occurrences and magnitude of delay in a network.

[2] Miguel Lambelho, Mihaela Mitici, Simon Pickup, Alan Marsden,**"Assessing strategic flight schedules at an airport using machine learning-based flight delay and cancellation predictions",** Journal of Air Transport Management, Volume 82, 2020, 101737, ISSN 0969-6997.

Proposed work: This paper provides a machine learning- based approach to assess the strategic flight schedules in terms of potential arrival/departure flight delays and cancellations. This paper also provides an approach that supports an integrated strategic flight schedule assessment, where strategic flight schedules are evaluated with respect to flight delays and cancellations.

[3] Navoneel Chakrabarty, **"A Data Mining Approach to Flight Arrival Delay Prediction for American Airlines"**, The 9th Annual Information Technology, Electromechanical and Microelectronics Conference (IEMECON 2019).

Proposed work: This paper aims at analyzing flight information of US domestic flights operated by American Airlines, covering top 5 busiest airports of the US and predicting possible arrival delay of the flight using Data Mining and Machine Learning Approaches.

[4] Kaiquan Cai, Yue Li, Yiping Fang, Yanbo Zhu,**" A Deep Learning Approach for Flight Delay Prediction through Time-Evolving Graphs"**. IEEE Transactions on Intelligent Transportation Systems, IEEE, In press, pp.1-11. ff10.1109/TITS.2021.3103502ff. ffhal-03428046f.

Proposed work: This paper is about the flight delay prediction problem is investigated from a network perspective (i.e., multi-airport scenario). To model the time-evolving and periodic graph-structured information in the airport network, a flight delay prediction approach based on the graph convolutional neural network (GCN) is developed in this paper.

[5] Yi Ding,**" Predicting flight delay based on multiple linear regression"** ,2017 IOP Conf. Ser.: Earth Environ. Sci. 81 012198

Proposed work: This paper proposes a method to model the arriving flights and a multiple linear regression algorithm to predict delay, comparing with Naive-Bayes and C4.5 approach.

[6] Qu, J., Zhao, T., Ye, M. et al. **"Flight Delay Prediction Using Deep Convolutional Neural Network Based on Fusion of Meteorological Data."**, Neural Process Lett 52, 1461–1484 (2020).

Proposed work: This paper provides two flight delay prediction models using deep convolutional neural networks based on fusion of meteorological data. The first model is DCNN (Dual- channel Convolutional Neural Network), which refers to the ResNet network structure. The second model is SE- DenseNet (Squeeze and Excitation-Densely Connected Convolutional Network).

[7] G. Gui, F. Liu, J. Sun, J. Yang, Z. Zhou and D. Zhao, **"Flight Delay Prediction Based on Aviation Big Data and Machine Learning,"** in IEEE Transactions on Vehicular Technology, vol. 69, no. 1, pp. 140-150, Jan. 2020, doi: 10.1109/TVT.2019.2954094.

Proposed work: This paper explores a broader scope of factors which may potentially influence the flight delay, and compares several machine learning-based models in designed generalized flight delay prediction tasks. To build a dataset for the proposed scheme, automatic dependent surveillance-broadcast (ADS-B) messages are received, pre- processed, and integrated with other information such as weather condition, flight schedule, and airport information.

[8] Yu, Bin; Guo, Zhen; Asian, Sobhan; Wang, Huaizhu; Chen, Gang (2019),**"Flight delay prediction for commercial air transport: A deep learning approach."** Transportation Research Part E: Logistics and Transportation Review.

Proposed work: This paper analyzes high-dimensional data from Beijing International Airport and presents a practical flight delay prediction model. Following a multifactor approach, a novel deep belief network method is employed to mine the inner patterns of flight delays. Support vector regression is embedded in the developed model to perform a supervised fine-tuning within the presented predictive architecture

[9] Esmaeilzadeh, Ehsan; Mokhtarimousavi, Seyedmirsajad (2020).**"Machine Learning Approach for Flight Departure Delay Prediction and Analysis".** Transportation Research Record: Journal of the Transportation Research Board.

Proposed work: This paper employs a support vector machine (SVM) model to explore the non- linear relationship between flight delay outcomes. Individual flight data were gathered from 20 days in 2018 to investigate causes and patterns of air traffic delay at three major New York City airports

[10] Etani, Noriko (2019),"**Development of a predictive model for on-time arrival flight of airliners by discovering correlation between flight and weather data.",** Journal of Big Data,2019.

Proposed work: This paper aims to discover the correlation between fight data and weather data. A predictive model of on-time arrival flight is proposed using flight data and weather data. The feasibility of the predictive model is evaluated by developing a tool of on-time arrival fight prediction.