19CSP14 - PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY AND ENTREPRENEURSHIP

AIRLINES DATA ANALYTICS FOR AVIATION INDUSTRY

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PROBLEM STATEMENT

To build a user interface application to analyse delays so that the airport organization can adjust and allocate resources (airports) in the vicinity quickly.

ABSTRACT

From the start, the airline industry has remarkably connected countries all over, through rapid long-distance transportation, helping people overcome geographic barriers. Consequently, this has ushered in substantial economic growth, both nationally and internationally. The airline industry produces vast amounts of data, capturing a diverse set of information about operations, including data related to passengers, freight, flights, and much more.

LITERATURE SURVEY

1.Predictive Analytics Platform for Airline Industry

(P.H.K Tissera, M.A.L.Perera, K.T. Waduge, D. Kasthurirathna**, 2020)**

- In this study, inquire about saying to plan and create the most excellent fit forecast flight OD level passenger request based on the verifiable information.
- A precise instrument to anticipate income for future months of OD (Origin Goal) is done utilizing admission and traveller information.
- The income is inferred by the number of traveller and the fare they pay which shift for each flight.

2) Big Data Analytics in airlines: Opportunities and challenges

- Big data technology; Big data analytics; Airlines; Aviation industry; Data Driven Culture.
- The development of big data management research has generated a range of analytical tools that could be utilized to better respond to such sudden 'black swan' risks, like COVID19 pandemic (Ienca and Vayena, 2020).
- In aviation, very large amount of flight data is generated and there is an essential need to analyse such data in real time (Kasturi et al., 2016). Technological advances allow firms to use various types of structured, semi-structured, and unstructured data (Lee, 2017).

3) MAS Flight: A Global Aviation Data Warehouse and Big-Data Analytics Platform

- Examine diversions, cancellations, delays and determine root causes. Deep-dive into airport gates, taxi times, and runway patterns analyse air space usage and air traffic management.
- Arrival weather Destination information Landing/taxi times Arrival date/time Diversion data Aircraft information.
- Enhanced Traffic Management System Counts (ETMS), including Airport operations counts by type (commercial, freight, etc.), departure & arrival.

4) Air Transportation in 2030-50 and Data Analytics in Aviation Asst. Prof. Nazim Kemal Ure*, Asst. Prof. Emre Koyuncu* Prof. Gokhan Inalhan* and Cengiz Pasaogl:

- Aircraft and ATM Equipment Manufacturers / Suppliers –New engine Technologies – Advanced robotics, unmanned workspaces, flexible automation –Instantaneously switch between components, totally reconfigurable factory. –Advanced manufacturing equipment, smart materials.
- Society –Equity of access, safe and seamless flights –Reduced environmental impact on society –Passengers will be able to pick the optimum way of transportation by easily providing their requirements and constraint.

♦ • Analytics improved massively in recent years –Advances in operations research, computer science and statistics –Sustained improvements in computation power –Huge amounts of data –Success stories

REFERENCES

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- **Sofiyat Bakreena, Elizaveta Markovskayaa, Igor Merzlikinb, Asiiat Mottaeva**

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