**Sambhram Academy of Management Studies**

**Aviation Students Practical Exposure**

**Visit to Kempegowda International Airport (KIA)**

 **February 02, 2023**

The airport was opened in May, 2008 as an alternative to increased congestion at HAL Airport, the original primary commercial airport serving the High Tech City, Bangalore. Named after the founder of Bangalore, Kempegowda International Airport became Karnataka's first fully solar powered airport spread over 4,000 acres and is located about 30 kilometers north of the city near the suburb of Devanahalli. It is owned and operated by Bangalore International Airport Limited (BIAL), a public-private consortium.

**Details of the Journey**

Our Aviation students undertook a visit to Terminal two of KIA on February 02, 2023 guided by the Faculty Members. Guided by Airport Staff Members Mr. Pratap Kumar, Mr. Bharadwaj and Mr. Suri for the tour and learnt about the interior construction and the ways in which the domestic terminal (land side) of the airport is operated. It took around three hours for all groups of students to complete the tour, and ended with an expression of gratitude and gave a ‘vote of thanks’ to the guides.

**Objective**

 Understanding the ‘behind the scenes’ process of a passenger boarding the plane, the visit exposed students to the rules and regulations followed by the airport, the principles it was built and the work ethics of an employee in the airport. Airport profile: The four guiding principles that have influenced the design and architecture of KIA Terminal two are a garden, sustainability, technology and art and culture. The two slides show the pictures taken at the airport depicting the art that is the ceiling architecture resembling the bells found in temples, the statues of wooden elephants (symbol of royalty) and the art of Karnataka which has been showcased on the walls of the airport.

 **Sustainability and Technology**

➢Some parts of the interiors of the airport were constructed using bamboos which are a part of sustainability

➢The airport has 4 levels where in, Level 1 is arrival, Level 2 is Baggage handling system (BHS), Level 3 is departure and Level 4 the launch (mezzanine floor).

 ➢The airport has a total of 8Aerobridges. Fixed link bridge (FLB) which is a connection tunnel linking terminal and PBBs with Gate House and is a connection tunnel linking terminal and PBBs with Gate House -Passenger boarding bridge (PBB) is an enclosed, elevated passageway which extends from an airport terminal gate to an airplane. The PBB allows passengers to board and disembark an aircraft without the requirement to go outside

 ➢Inside there are a total of 90 counters out of which 56 are conventional (normal) counters and 34 are self-baggage drop (SBD) counters.

➢They are further divided into 3 islands having 6 rows, each row consisting of 10 conventional counters and 5 functional SBD’s.

 ➢Each counter is linked to a main baggage conveyor via weighing, labeling and other induction conveyor belts. These belts then feed the baggage onto three main conveyors which lead to separate baggage make-up carousels at the Baggage Make-Up Area (BMA). The entire BHS is automated and has in-built contingency modes to attend to failures. The BHS is remotely monitored by a SCADA (Supervisory Control and Data Acquisition) system, which ensures that the system is operational all the time. SBD: This system will significantly accelerate the baggage transaction and reduce check-in queues. The airport, the official statement said, is the first in the Country to introduce a large deployment of fully automated baggage drop-off units. The working of SBDs: The Self Bag Drop employs a two-step approach. A passenger will first print a boarding pass and a bag tag at a self-check-in. Once tagged, the passenger will go to the bag drop machine, scan the boarding pass to initiate the bag drop process. The bag will be measured, weighed, scanned and automatically fed into the baggage handling system.

➢The fully automated Self-bag drop service enables passengers to complete the baggage transaction within 45 seconds.

➢ Care by Bangalore (CBB) will be there to assist the customer’s in-case of any queries.

➢ Buggy’s free of charge in terminal building are provided to facilitate the passengers with access to boarding gates located beyond reasonable walking distance, for the physically challenged and senior passengers.

➢ Central industrial security force (CSF) are in-charge of the security and can scan the luggage of any passenger they find to be suspicious. There is a facility of screening the luggage inside that is the inline screening.

 ➢They use screening equipment such as metal detectors, millimeter wave machines, backscatter x-ray and cabinet x-ray machines. These devices also detect items that may be hidden.

➢Aircraft rescue fire and fighting (ARFF) is a type of firefighting that involves the emergency response, mitigation, evacuation, and rescue of passengers and crew of aircraft involved in aviation accidents and incidents.

**Transfers**

 ➢ International and domestic flights operate from the same terminal. Flights depart from Level 1. Entry points for domestic departures are to the left of the terminal, and for international flights, to the right of the terminal.

 ➢ International arrivals to domestic connections: Customers with domestic connections should collect their bags and proceed through immigration. After exiting immigration, customers should follow the signs to the Domestic Transfer area to recheck their bags. A printed or digital boarding pass is required to access this area, and self-service kiosks are also available.

 ➢ International arrivals to international connections on arrival, customers should follow the signs to the International Transfer area. After security checks, customers can proceed to their departure gate for their next flight. Baggage claim area.

 ➢ The claim area is on the ground floor of the Terminal Building. Bus gate passengers reach the area directly whereas passengers using the aerobridge arrival will come from the first floor to the ground floor. At the Baggage Claim areaBSO (baggage service officer) is ready to assist you.

➢ 8 conveyor belts to serve domestic and international passengers and more are activated to ease the exit during peak hours. A Flight Information Display System will assist and guide the passengers with coordinated information on respective flight and belt details.

➢When layover flights are booked with the same airline; your baggage will be automatically transferred through to your final destination.

➢ Baggage Reconciliation System (BRS): The BRS is supported by the world’s most comprehensive communications network and backed by end-to-end service management, ensuring comprehensive baggage tracking and management. It leverages the power of state of the art technologies and IP based global links to get baggage safely to its destination with minimum disruption.

➢ The Airport’s BRS consists of two main modules – ‘Bag Manager’ and ‘Bag Message’.

 ➢ The ‘Bag Message’ application has live connections to airline DCS (Departure Control Systems) around the globe. It processes and forwards baggage status messages for online bag reconciliation activities to be carried out by the ‘Bag Manager’ application in the SITA servers at the airport. Hand held Wi-Fi enabled scanners are used at the BMA by ground handlers and self-handling airlines.

 ➢ This solution provides positive passenger bag match and reconciles passengers with their bags thereby conforming to ICAO’s Annex 17-security requirement, prohibiting the carriage of unaccompanied baggage onto the aircraft.

 ➢ Apart from this SSR and PNR numbers will aid the passengers in finding lost bags

**Conclusion**

 While going through the entire visit, the airport was found to be well-organized, developed and ideal in its working, administration and management aspects. It was a great experience and a fine visual of how things are practically executed. Students got to learn so much about the different types of technologies used and about the systematic working of the airport.