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## Estimation and Designing of Airport

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### ABSTRACT

*Analysis of the dynamics of evolution of multi-airport systems worldwide that can help to guide their effective development in the future. Given the capacity constraints on existing major airports, the development of multi-airport systems is going to be a key mechanism by which air transportation systems around the world will be able to meet future demand. In order to better understand how these systems will evolve, a systematic case study analysis of 59 airport systems worldwide was performed. The analysis showed significant differences in the evolution of multi-airport systems across world regions. In the United States and in Europe, the recent development of multi-airport systems primarily involved the emergence of secondary airports. In Asia, multi-airport systems have generally evolved through the construction of new high capacity airports, due to a much weaker set of available airports, high perceived benefits of strong growth of traffic and weaker opposition to the construction of airports. Given the capacity constraints on existing major airports and the limited ability to increase their capacity, the transition and development of multi-airport systems appears to be key mechanism by which air transportation systems around the world will be able to meet future demand.*

**Keywords:** Estimation & Costing, 3D Modelling, Sketch Up Pro, Calculation.

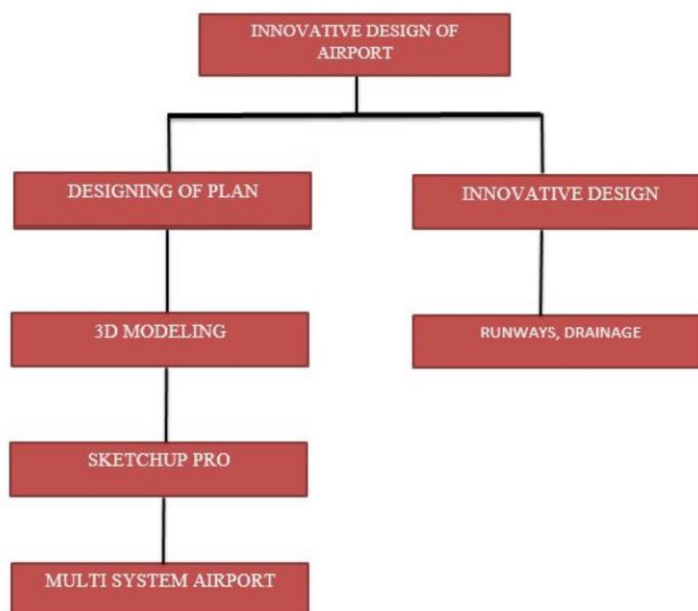
### I. HEADING

The main objective of our project is to know the Estimating and Costing and innovative design of multi airport system. The estimate is defined as the process of calculating or computing the various quantities and the expected expenditure to be incurred on a particular work or project. The estimate gives the probable cost of the work. The primary objective of an estimate is to enable one to know the probable cost of the work before the completion of the project. Multi airport systems is a key mechanism by which air transportation systems will be able to meet future demand worldwide.

## II. SUB-HEADING

The project on the growing demand for air transportation around the world coupled with the limited ability to increase capacity at key airports in the air transportation system, pose concerns that, in the future, the system will not be able to meet demand. It appears that the development of multi airport systems is a key mechanism by which air transportation systems will be able to meet future demand worldwide. Estimating and costing will eliminate the question of the budget required for construction of an airport.

All airports with more than 5,00,000 passengers in 2005 were considered in this analysis. A geographical cluster analysis was performed to indentified airports located in the vicinity of each other. These airports were then categorized in two types; primary airports and secondary airports. After the identification of multi airport system, we know proceeded for the making of 3D models with the help of sketch up pro, showing the future or how the multi airport system would look, as this is the first phase of our project i.e. modelling of airport.



**Methodology Plan Chart**

## III. CONCLUSION

1. The development of multi-airport systems is the expression of the adaptation of the national air transportation system to capacity constraints and emergent market opportunities. As major airports around the world reach their capacity limits and become congested, new airports emerge in the vicinity either through the construction of new high capacity airports or the emergence of secondary airports from available and non-utilized airports. Given the capacity constraints on existing major airports, the development of multi-airport systems is going to be a key mechanism by which air transportation systems around the world will be able to meet future demand.
2. Construction of terminal building, runways and parking lots should be providing safety and economical access to the passenger's at multi airport system. This project includes the estimation, 2D & 3D plans of multi airport system specifically estimation of G+3terminal building, helipad area, public and airport/private parking area, five runways using auto cad and sketch UP pro for planning and designing and estimate using Microsoft excel sheet.
3. Getting familiar with Civil Engineering software Auto Cad. :-Auto Cad has been used for planning the various activities that surround the construction of a building. Using Auto cad, we were able to formulate a working schedule and also a progress bar for constant monitoring of the project. Using Auto cad, we were able to assign various resources as well as responsibilities on various people related to the various stages of the project there by increasing accountability.
4. Getting familiar with Civil Engineering software Sketch Up Pro. :-We used Sketch up pro to replicate the concept of multi system airport in a 3D perspective of AutoCAD plan. We made 3D models of airport terminal, runways, aerobridge, and parking lot, Air traffic control tower for better understanding of the concept.
5. Getting familiar with Microsoft Excel. :-We used Microsoft excel for estimation of the project using various formulas. We prepared measurement sheet to calculate quantity requirement of various activities. With the help of this software

we also prepared bill of quantities (BOQ)

6.

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