

## **AE6103 - Introduction to Space Technology**

Write a 2-5 page report on one of the topics listed below. The report should be self-sufficient and broadly divided into the following sub-sections: i) Introduction, ii) Literature/Market Survey, iii) Tool used (for topics 7 and 8), iv) Observations, v) Conclusion and vi) References.

### **List of Topics**

1. Global Space Industry: Present and Future
2. Indian Space Industry: Present and Future
3. List the Launch Vehicles available with different space agencies worldwide and discuss their configurations (no. of stages, types of stages, etc.)
4. List the Launch Vehicles available with different space agencies worldwide and discuss their capabilities (payload, orbits, etc.) and limitations.
5. List the Launch stations available with different space agencies worldwide and discuss their capabilities (payload, orbits, etc.) and limitations.
6. List the rocket design software available in the market (open source and commercial) and discuss their limitations and capabilities.
7. Choose one of the rocket design softwares available in the market (open source or commercial) and design a rocket to launch an iPhone into polar orbit. Describe in detail the steps followed.
8. Explore NASA Instrument Cost Model (NICM) Version 10 and discuss its capabilities and limitations.