

THE **SAGA-220** Supercomputer (ranked **86** in the top500 list) is built by the Satish Dhawan supercomputing facility located the VIKRAM SARABHAI SPACE CENTER (VSSC),Thiruvananthapuram,Kerala. The Problem for which the SAGA super computer is built dedicated to solve the complex aerospace and computational fluid dynamics problems that may be/are encountered by the ISRO.The System has 400 NVIDIA Tesla m2070 GPUs and 400 Quad Core Xeon CPUs with a high speed interconnect.With each of the SAGA-220 's GPU and CPU providing a performance of 500 Gflops and 50 Gflops respectively the SAGA-220 may theoretically provide a peak performance of **220 Teraflops**. This Computer has an advantage over the available and conventional CPU systems in terms of power,cost and space requirements.

It is said that this computer is said to be eco friendly in the sense that it consumes a power of only 150 KW and also it is a highly scalable system indigenously developed by the ISRO (as it can be **scaled to almost 1000 TERAflops**.)

The first problem that was attempted to solve using this Supercomputer is to have increased ability to "build virtual prototypes of a launch system and simulate the physical and chemical changes to predict the performance". The current problem that is being solved by the SAGA-220 is to design a reusable launch vehicle for the ISRO and to provide such a facility commercially to the other countries. the results of this Saga-220 are classified and are not revealed much into the public.

source of the above article :

- [ISRO press release](#)
- <http://en.wikipedia.org/wiki/SAGA-220>
- [HPCwire](#)
- [ICBSE](#)
- [NVIDIA release](#)

BY
KARTHIK.P,
12556,
I.M.Tech(CS),
SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING.