***ESPIAL 2016***

**TECHNOLOGY IN DEFENSE**

**Applications of *GIS & NANOTECHNOLOGY* in defense**

**What is Nano technology?**

It is the technology which revolves around us but for its microscopic subjects is not mainstream. It is used in various computing circuits especially Defense.

Nanotechnology is helping to considerably improve, even revolutionize, many technology and industry sectors: information technology, environmental science, medicine, homeland security and food safety among many others.

Most benefits of nanotechnology depend on the fact that it is possible to tailor the essential structures of materials at the nanoscale to achieve specific properties, thus greatly extending the well-used toolkits of materials science. Using nanotechnology, materials can effectively be made to be stronger, lighter, more durable, more reactive, more sieve-like, or better electrical conductors.

**GIS (Geographic Information System)**

During operations in East Timor in 1999, soldiers were reportedly unable to locate parts and supplies that had been shipped in to support them.

Computers are used in helping the military find out where all their assets are (Situational Awareness) and in Communications/Battle Management Systems. Computers are used to track incoming missiles and help slew weapons systems onto the incoming target to destroy them.

**Nanotech in *Robotics***

Nanotechnology is an important factor in the development of robots and which is in turn finding its place with everyday advancements in the field of defense.

Defense of a country is ought to be the strongest as it a back-up for the whole country. Its computing systems needs to meet the demands of the high tech data usage and also be able to cope with multiple hypothetical commands and situations at the same pace. The defense circuits ought to be far better than the country’s computing circuit open to public to maintain the security status.

In conclusion: Endless possibilities that need to be harnessed and are made into use for the betterment and protection of our soldiers in battle fields. because “ THIS NATION WILL REMAIN THE LAND OF FREE ONLY ,SO LONG AS IT IS HOME OF THE BRAVE”.