



Regional Security and Global Governance

Emerging Technologies Changing the rules of game in Defence Sector

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Emerging Technologies

- Possibilities
- Uncertainty
- Technology life cycle
- Capabilities
- Technologies and Innovation
- Policy implications



Generic Picture under which army operates

- AHack
- Defend
- Gathering Information



Future Technologies for the Defence Sector

1. Selection of Technology Parametres
2. Flexibility
3. Mobile, Survivable Combat power
4. Dependence on Reserve and National guard forces



5. Joint Operations
6. Prepositioning of forces and supplies
7. Intelligence Capability
8. Day-Night Capability
9. Psychological Operations
10. Planning, Deployment and Training
11. Stability of Military Institution



Future Technologies for the Defence Sector

1. Multidomain smart sensors
2. Terahertz electronic devices
3. Wideband communication technology
4. Battle Management software technology
5. Solid State Lasers
6. Genetically engineered materials
7. Electric drive technology
8. Designer materials



Computer Science, Artificial Intelligence and Robotics

- Technology findings
- Human-machine interfaces
- Robotics
- Machine Learning



- Neural Networks
- Database Management Systems
- Ultra high performance parallel and serial computing
- Knowledge based Systems
- Natural language and Speech



Biotechnology and Biochemistry

- Gene Technologies
- Biomolecular Engineering
- Bioproduction Technologies
- Targeted Delivery Systems
- Bio-coupling
- Biomics



Propulsion and Power Technologies

- Technology Group
- Technology findings



Advanced Materials

- Technology group
- Resin Matrix Composites



Concluding Remarks

The foreseeable evolution of technology will profoundly affect warfare. There are so many technologies with important military consequences that a primary problem for Army technology management will be to select focal interests and implement their effectively



THANK YOU