



Conference on

**“Emerging Technologies — Impact on Conventional and Nuclear Strategy”**

**Report**

Strategic Vision Institute (SVI) in collaboration with the Faculty of Aerospace and Strategic Studies (FASS), Air University organized a conference on “Emerging Technologies — Impact on Conventional and Nuclear Strategy” at the Air University Auditorium. The conference was part of the SVI Outreach Program, which aims to reach out to universities and research institutes around the country to raise awareness about strategic issues that concern Pakistan.

Departing from the past practice of presentation format, the conference was designed to be more interactive. The moderators introduced the session’s topic and panelists delivered brief remarks followed by an inclusive interactive session wherein maximum time was allocated for comments and questions by audience. The novel format allowed adequate room for discussion, which provided an opportunity for mutual learning and was commended by the audience.

The conference consisted of two sessions.

The first session discussed “Emerging Technologies: Impact on Conventional Warfare” and was chaired by Air Commodore (R) Khalid Banuri. The first panelist was Maj. Gen. (R) Qasim Qureshi, who discussed “Warfare in the era of Block Politics”. The second speaker Dr. Ali Sarosh, Associate Professor at the Department of Mechanical and Aerospace Engineering, Air University deliberated on “Technology Trends in Space Warfare: Implications for South Asia”. Dr. Zunera Jalil, the third panelist, spoke on “Cyber Warfare”.

The second session titled “Emerging Technologies: Impact on Nuclear Strategy” was chaired by Dr. Adil Sultan, Dean Faculty of Aerospace and Strategic Studies (FASS). The first panelist Dr. Naeem Ahmad Salik, Executive Director, SVI presented his views

on "Emerging Concepts of Deterrence" which include Cross-Domain Deterrence, Integrated Deterrence, and Entanglement. Dr. Rabia Akhtar, Director, Center for Security, Strategy and Policy Research at the University of Lahore deliberated on "Deterrence in the age of Social Media". Dr. Zafar Nawaz Jaspal, Professor, School of Politics and International Relations, QAU deliberated on "New Missile Systems and Deterrence in South Asia".

### **Key Takeaways:**

1. The USA now faces a peer competitor in China, which explains why Washington is scrambling to form alliances to balance against Beijing.
2. The post-Cold War liberal world order is in shambles and the world is heralding into a multipolar era with two conflicting dyads: China vs the USA in Asia-Pacific and Russia vs the USA in Europe.
3. There are significant chances that Russia and China would continue to rally together against the "collective West" and would expand mutual collaboration, including in the realm of warfare.
4. Space warfare is essentially counter-space operations, which are classified as defensive and offensive.
5. India has made space an essential part of its military planning and operations and has leaped far ahead of Pakistan in this realm.
6. Given its limited capacity, defense and counter-space operations are the most feasible options for Pakistan but the choice of targets must be made wisely so as to avoid collateral damage.
7. Different countries have adopted proactive and reactive mechanisms with regard to cyber capabilities.
8. AI-driven platforms such as ChatGPT and Bard will further expedite the pace of technological evolution and its real-world manifestations and applications.
9. The critical infrastructure of countries is extremely vulnerable to cyber-attacks. AI-based cyber-attacks by adversaries can significantly disrupt military operations that employ computer-based systems.
10. Integrated deterrence was initially considered to be a combination of conventional and nuclear deterrence but the recent policy documents issued by

the USA incorporate the capabilities of allies and partners in Asia-Pacific into integrated deterrence.

11. There is a need to raise awareness about nuclear issues among the general public and political class so that unnecessary speculation about nuclear weapons could be avoided.
12. Social media is a propaganda domain in which misinformation and disinformation provide all the requisite elements of escalation. While social media can be used for communication (a crucial aspect of deterrence) during a crisis, it can also be misinterpreted by the adversary leading to inadvertent escalation.
13. The challenge in the third nuclear age is not only non-nuclear strategic weapons but also disruptive technologies.
14. India is building alliances and entering into partnerships with technologically advanced countries, like the USA and Israel, which could adversely impact strategic stability in South Asia.
15. The real challenge emanates from India's unilateral pursuance of disruptive technologies, which is widening the gap between India and Pakistan in military technology. The situation is further aggravated by the absence of Confidence Building Measures (CBMs) between the two countries.

(The End)