Innovation

Third Joint Winner

- **Project Title:**
  Personal equipment of todays soldier in view of science and technology of military advanced composites in inactive defense
- **Initiator:**
  Ministry of Defense-DIO-Armor Industries Group -Vehicle Institute of Science and Technology
- **Representative:**
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Abstract:

The imposed war experience and the issued statistics of the casualties belonging to other countries' wars indicate that using personal protection equipment like antiballistic vest, helmet and anti-mine boots can prevent the casualties significantly.

Today's soldier's personal equipment consists of ballistic composites and has advantages like low weight, high tensile modulus and high elasticity modulus, low density high ability in absorbing energy, etc. in comparison with steel armors. For these reasons the composites have various applications in producing the personal protection equipment. Statistics show that if the troops use the mentioned equipment, their survival probability increases up to fourteen times. This equipment, if used by the military forces, can result in troops' self-confidence and will present more calm to their family. Inception of this project is a starting point for the researchers of this Research Center to acquire the technology through which the armor industries of Iran remain updated, as well, our country can be able to design and manufacture new armor and effective protections against the threats. These aims resulted in independence in production of protective systems and saving millions of dollars for defense industrial organization. Nowadays, the production of personal protection equipment is in the step of mass production, and many of them have been delivered to the armed forces under the contract, and also some products are exporting at the time being. The cost of this equipment is about 60% less than foreign products. This project was first initiated in 1374 and entered the step of semi-industrial production in 1379 and achieved the mass production level in 1382. These products were tested by TNO according to NIJ.0101.04, in Holland and were confirmed by that company.