

First Laureate Applied Research



- **Project title:** Design and Manufacturing of SEJEIL missile system
- **Executive Organization:** Aerospace Industries Organization
- **Collaboration Organizations:** Many Universities, Public & Private Companies and Organizations

Abstract:

This weapon system with unique specifications and qualities has been designed, developed and tested as a strategic weapon in order to improve the deterrence capabilities of the country along with the fulfillment of defence doctrine of Islamic Republic of Iran and meeting the requirements of armed forces through obtaining modern technologies (soft and hard) in the field of solid propellant systems. This missile is the first two-stage ballistic missile. This missile can hit any fixed ground targets within its range. This system uses the latest technologies of solid propellant motors regarding propellant, internal ballistics, thermal shields, thrust vector control system and soft technologies such as modern guidance algorithm and pre-adjusted guidance algorithm. Among the features of the missile is the high velocity of warhead while entering the atmosphere and hitting the target which increases the probability of passing the enemy missile defence shields. Since the missile is of two-stage type, the technology of separation and ignition of the second stage motor in vacuum flight condition has been utilized. One of special specifications of this project is using all the Industrial, research and university capacities around the country regarding brainware, software, and hardware in the design of the system.

