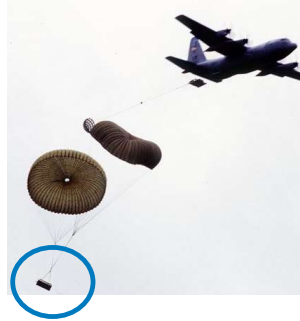


# Benefits of Reusable Parts - **REAL & RUSB**



**Dr. Daryoush Allaei, PE**

Chief Technology Officer  
QRDC, Inc.

E: [dallaei@qrdc.com](mailto:dallaei@qrdc.com), P: (952) 556-5205 or Mobile: (612) 380-4433

**Website for more in formation:**

1) <https://www.qrdc.com/library/real-reusable-energy-absorbing-layer/>

2) <https://www.qrdc.com/>

November 6, 2025

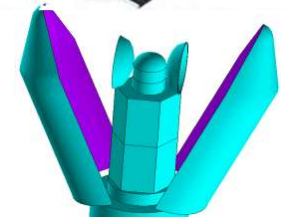
## Brief Background on QRDC

- ✓ QRDC has 35 years (1989-present) of experience in developing technologies for DOD (Army, Navy, Air Force, MDA, DARPA), DOE, NSF, & NASA
- ✓ 85% of QRDC's projects have been funded by DOD (Army, Navy, Air Force, MDA & DARPA)

## **Brief Background on Dr. Allaei**

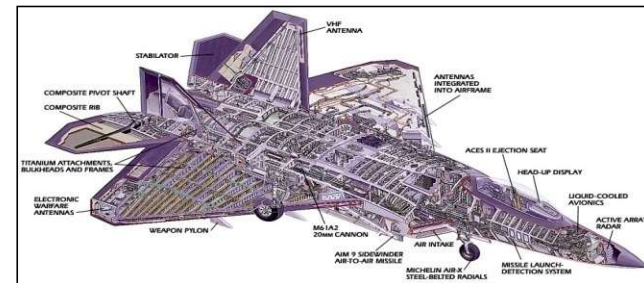
- ✓ **Dr. Allaei received his BSME, MSME, & PhD degrees in Mechanical Engineering & System Dynamics from Purdue University**
- ✓ **Dr. Allaei has founded and cofounded 6 companies with national and international market reach**
- ✓ **He has over**
  - ❖ **50 national and international patents**
  - ❖ **250 national and international publications**

# Commercial & Military Applications Overview



# Military Applications Overview

- **Electronic Enclosures  
(Navy)**
- **Smart Fasteners  
(Air Force)**
- **Isolation for Submarine Sonar  
(Navy)**
- **Smart Skin Structures For Airborne Vehicles  
(MDA)**



# Military Applications Overview *Continued...*

- **Isolation Mounts for Airborne Guns**  
(Army)



- **Engine Mounts**  
(NavAir)



- **Acoustically Intelligent Surfaces (AIS)**  
(Army)



- **Intelligently Vibrating Air Filters (IVAF)**  
(Army)



# Recognitions

2000



2002



2004

