

Providing the Smart Clothes for Security Forces by Adopting the IOT Technology

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Abstract: Smart clothing and body sensors for military use may not sell the same way smartphones do, but it's still a growing market. Tractica forecasts that overall shipments of smart clothing will rise from 968,000 units in 2015 to 24.75 million units in 2021, a compound annual growth rate of nearly 72 percent. Smart clothing has become a key component in the creation of new military uniforms, designed to improve the health of the soldier while providing added battlefield insight. Smart military clothing is expected to be a \$500 million market by next year.

The military has partnered with industry leaders, other government agencies, and academia to support and advance the development of potential smart clothing solutions that would be beneficial to the U.S. military by giving them a technological and tactical advantage over its foes," write the students of the University of California Berkley's Sutardja Center in their analysis of the smart clothing market. Agent Detection is also known as environmental sensors, these sensors are designed to detect and avert dangers by measuring things such as radiation, chemicals, viruses, bacteria, fungi, humidity, temperature and atmospheric pressure. When working with smart clothing and body sensors, the challenge is to create a garment that can be treated like other clothing, being comfortable, flexible and washable. At the same time, many wearable systems are meant to be worn during rugged activity. Soldiers in the field need wearable clothing that can withstand a wide range of temperatures. This clothing also needs to provide effective shock and vibration resistance, as well as resistance to chemicals or solvents that might otherwise destroy a commercial device.

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