

2nd World Congress on

Automation and Robotics

June 13-15, 2016 Philadelphia, USA

Global industrial robotics market estimated to reach USD 79.58 billion by 2022, at a CAGR of 11.92% between 2016 and 2022

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Industrial robotics systems are designed to perform different industrial tasks in the defined pattern to automate the production process. The traditional industrial robots traces its history to the early 1960s, since then it has evolved significantly. The market for traditional robots is estimated to reach USD 75.99 billion by 2022, at a CAGR of 11.11% between 2016 and 2022. The major factors driving the growth of this market are increase in demand from the automotive as well as non-automotive sectors such as electrical and electronics industry. Collaborative robots are the new version of industrial robots which are designed to work in collaboration with humans on the production line. It is estimated that the market for such robots will grow at the CAGR of 76.33% between 2016 and 2022 owing to the demand from various small and medium scale enterprises, especially from the APAC region. The global industrial robotics market is dominated by the players such as ABB Ltd. (Switzerland), KUKA AG (Germany), Mitsubishi Electric Corp. (Japan), FANUC Corp. (Japan), Yaskawa Electric Corp. (Japan), and Kawasaki Heavy Industries Ltd. (Japan) among others. The major challenge faced by the industrial robots manufacturers is to design advanced systems which can meet the demand of consumers in the era of Industrial Internet Of Things (IIOT). To match the standards of IIOT, robots manufacturers have to work on various aspects of data analytics, interoperability, architectures, protocols, and security. This would require significant R&D, innovation, and investment to fulfill the complex demand of IIOT.

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Intelligent ground and air robots for dynamic environments

David Bruemmer

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My presentation will discuss the introduction of a new technology for positioning involving the use of ultra wideband (UWB) radios as a means of connectivity and peer to peer positioning. The 5D UWB Modules can be used to provide centimeter positioning throughout an ecosystem. The modules can be quickly added to existing vehicles, people and robots and do not require a complex or costly installation. The UWB modules provide safe motion, preventing collisions and offering situation awareness of all tagged assets. They also permit autonomous follow and wagon training between multiple disparate systems including humans, drones and ground vehicles as well as permitting accurate, reliable autonomous navigation. My presentation will provide case studies and videos illustrating the technology in action within a variety of environments including heavy equipment, military applications, drone inspection and automotive.

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