

Swarm robotics market

Sachin Garg^{1,2}

¹Indian Institute of Foreign Trade, India

²Birla Institute of Technology & Science, Pilani, India

Swarm robotics market is witnessing significant growth because of its increasing usage for solving big data problems, need for swarm robotics in the transportation business and rising adoption of swarm based drones in military. Moreover, the growing impact of connected cars, along with the rising adoption of swarm robotics in warehouses can generate huge opportunities for players in this market in the future. There are many swarm robotics algorithms currently being researched upon. Some of the algorithms include ant colony optimization, particle swarm optimization, bee-inspired algorithms, bacterial foraging optimization, firefly algorithms, and fish swarm optimization. The most widely accepted algorithms for real-world problems are ant colony optimization and particle swarm optimization. Swarm robotics algorithms can be used for controlling robots and unmanned vehicles, predicting social behaviours, enhancing telecommunications and computer networks, etc. For instance, airlines use ant-based routing in assigning aircraft arrivals to airport gates. Swarm robotics has various capabilities including optimization,

routing, scheduling and clustering. These capabilities are used in a decision-making process and to solve complex problems such as nondeterministic polynomial time-hard (NP-hard) problems. The market for swarm robotics is becoming highly competitive with the presence of several start-ups. Industry players are also looking towards government support for funding and investments to achieve growth in the swarm robotics market. The intent of this conference is to cater to the various industry stakeholders, such as automotive companies, technology providers, universities and research organizations, drone manufacturers, robot manufacturers, swarm algorithm providers, investors and venture capitalists, and manufacturers implementing swarm robotics. Viewers can update themselves about the latest developments carried out in the swarm robotics ecosystem, and market dynamics, key trends, and use cases. They can also be informed about the new growth opportunities in the swarm robotics market.

sachin.garg@marketsandmarkets.com