Vision technology has undergone a dramatic boom with a growing number of applications in electronics & electrical, semiconductor, food & beverage, robotics, medical, agriculture, and security and surveillance areas. The technology helps computers recognize objects with greater accuracy and reliability and has replaced quality inspection performed by humans. The demand for traceability, production efficiency, and zero defects has augmented the increasing demand for automation and has propelled the demand for machine vision systems. Deep learning technology has enhanced vision software capabilities and found success in pharmaceutical, medical, automotive, textile, packaging, and printing industries. This technology has enhanced machine vision performance and capabilities and reduced errors in inspection process by allowing machines to learn from data representations.

3D machine vision in conjunction with robotics is providing guidance and location for a wide range of assembly and inspection applications. The technology delivers accurate real-time location data, enabling robots to be more independent and flexible and adapt to changes. 3D vision systems have expanded the possibilities for vision guided robots in applications such as bin picking, product profiling, and tracking. This is enabling automation of more and more industrial tasks such as material handling, assembly, and inspection.

For more information, please visit us at www.arcweb.com/market-studies/.

This report serves as an effective planning guide for providers of machine vision products and solutions as well as purchasers. This report will help understand the competition and market dynamics, such as:

- What industries and applications offer the greatest opportunity?
- What role will Industrial IoT and digitization play in market growth?
- How will emerging markets impact the total market?

This research is available as a Market Intelligence Workbook (Excel) and/or a concise, executive-level Market Analysis Report (PDF), with or without detailed charts.