Vol.7 No.4

## 7th International Conference on Theoritical, Materials and Condensed Matter Physics

## Yuko Ichiyanagi

Associate Prof. at Yokohama National UniversityJapan, E-mail: mailto:yuko@ynu.ac.jp

The Global Semiconductor Market is going through an interesting phase, offering immense opportunities for firms involved in the business. Although the market faced a drop in revenue due to the global economic downturn, it is expected to sustain high growth momentum in coming years with increase in demand for electronics devices and requirements in new application areas. In their latest research study, Semiconductor Market Outlook to 2017", RNCOS' analysts identified and deciphered the market dynamics in important segments to clearly highlight the areas offering promising possibilities for companies to boost their growth. The market, estimated US\$ 289.9 Billion in 2012, is slated to grow at a CAGR of 7.6% during 2013-2017. The robust growth in revenue is being driven by the growing demand for mobile devices, specially smartphones and tablets. In the report, the Global Semiconductor market is studied thoroughly on three main grounds such as players, regions and applications. The global semiconductor market will be \$655.6 billion in 2025 compared to \$342.7 billion in 2015 with CAGR of 6.7%. This section intends to aid companies in designing their business strategies and provide them with key insights that help them boost their profits. Further, the analyzes global semiconductor industry performance covering analysis of the industry by segments, equipment's, materials and products. This has helped the analysts to clearly identify and highlight the market section offering maximum opportunity for growth.

According to the "Quantum Computing Market & Technologies – 2018-2024" report, the global market will grow at a CAGR of 24.6% throughout 2018-2024. During 2017 Quantum Computing technologies performance has increased at an impressive rate; we forecast that 2018-2019 will experience a surge of breakthroughs.

We are in the midst of a "Quantum Computing Supremacy Race", one that will result in ground-breaking computing power that surpasses the performance of digital supercomputers. The quantum computing technologies have the potential to change long-held dynamics in commerce, intelligence, military affairs and strategic balance of power. If you have been paying attention to the news on quantum computing and the evolution of industrial and national efforts towards realizing a scalable,

fault-tolerant quantum computer that can tackle problems, unmanageable to current supercomputing capabilities, then you know that something big is stirring throughout the quantum world. In a way that was unheard of five years ago, quantum physicists are now partnering with corporate tech giants, to develop quantum computing capabilities and technologies as the foundation of a second information age. Advances in quantum computer design, fault-tolerant algorithms and new fabrication technologies are now transforming this "holy grail" technology into a realistic program poised to surpass traditional computation in some applications. With these new developments, the key question that companies are asking is not whether there will be a quantum computer, but who will build it and benefit from it.



