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Impact analysis of nanotechnology in IoT

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One of the most revolutionary technologies to emerge in modern times is the Internet of Things. By the end of 2019, there were 7.6 billion active IoT devices, yet the field is still in its infancy. Adoption of these gadgets will soar as nanotechnology paves the way for the Internet of Nano Things (IoNT). However, the IoNT's potential cannot be disregarded. The IoT will be disrupted when nanotechnology develops, just like the IoT did with everything else. In addition to consumer and commercial items, nanotechnology offers intelligent solutions in a variety of disciplines, including the biomedical, industrial, and military ones. It can be used with the IoT to create a physical network made of nanomaterials that makes data transmission possible by allowing different components to communicate with each other at the nanoscale.

The result of their fusion, known as the Internet of Nano-Things, has already completely transformed numerous industries, including energy, transportation, and many others, and brought them into a new dimension. The Internet of Nano Things (IoNT) is essentially the Internet of Things system for nanodevices. These devices range in size from 0.1 to 100 nanometers. To illustrate how tiny the image is, we compare it to a sheet of paper, which has a thickness of 100000 nanometers. These devices need to be extremely sophisticatedly constructed due to their connectivity to both other devices and the Internet. They also have excellent durability so that they can withstand environmental strain. Due to the limited signal transmission capacity, which is typically only available within a single facility like a school or an aged care facility, the IoNT system's scale is similarly less than that of the IoT.

Recent Publications

1) Nagalingam Rajeswaran, Rajesh Thangaraj, Lucian Mihet-Popa, Kesava Vamsi Krishna Vajjala, Özen Özer, et al. Implementation of AI-Based Inverter IGBT Open Circuit Fault Diagnosis of Induction Motor Drives. Micromachines. 2020; 13(5): 663

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Biography

N. Rajeswaran did his Bachelors in Electrical and Electronics Engineering in Government College of Engineering, Bargur (Madras University) and also obtained Master's Degree in Applied Electronics from Anna University Chennai, Tamilnadu. He completed doctoral degree from Jawaharlal Nehru Technological University Hyderabad, Telangana, India. Presently he is working as professor & HOD in Electrical and Electronics Engineering department at Malla Reddy Engineering College, Hyderabad. He has published many research papers in various international journals and conferences. His area of research interest includes Electrical Machines, Soft Computing, Fault Diagnosis, Power System and Image Processing. He is a life time member of various professional bodies like MIE, ISTE, IAENG and IACSIT.

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