

UBIQUITOUS COMPUTING AND ITS APPLICATIONS

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Abstract

Ubiquitous computing is an innovative computing concept that will have a significant effect on how people interact with computers, devices, physical spaces, and even other people. Ubiquitous computing is the idea that computers will fade into the background, providing information and assistance for people effortlessly by embedding intelligence and computing capabilities into everyday objects. The main focus of ubiquitous computing is to create a seamless user experience when people move around in a ubiquitous computing environment. Systems designed on ubiquitous computing principles operate on a user centered design instead of operating on a computer centered design.

The key aspects of ubiquitous computing are nanotechnology, wireless computing, context-awareness, and natural interaction. These elements are used to incorporate ubiquitous computing into many different applications. Some of the most significant applications are robotics and sensor networking. Ubiquitous computing is implemented in robotics by using cloud computing to take advantage of the internet. It is also used in the development of sensor networks to create spaces that use unobtrusive sensing. Currently, many industries are dedicating time and money on research and development to create more ubiquitous computing environments. Ubiquitous computing will continue to evolve and eventually be seamlessly imbedded into every aspect of life.