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J-BHI Special Issue on “New Frontiers in Trusted Cyber-Physical Systems for Biomedical Applications”



The Internet is making the globe flat, By surpassing space. We may communicate with people worldwide and obtain vital information in a microsecond. The way we carry out research, education, businesses, products, and amusement have all changed due to the Internet. Evolving cyber-physical systems will allow for a modernized grand plan for contemporary societal solutions that cross time and distance at previously achievable sizes. Medical cyber-physical systems (MCPS) are networks of medical equipment which must be integrated into a healthcare system. Many other aspects of modern society, including medicine, potentially benefit from cyber-physical systems.

In comparison, sensing and wearable improvements can potentially increase medical care elements, especially in preventing diseases in an emergency. Synthetic biology and robotic systems have the possibility of revolutionizing how the organ is regenerated and maintained. Little of it is understood about how technological advancements in CPS can enhance the quality of care. It has the power to make human connections more intelligent.

Wearable sensors with implantable medical devices have already been used to measure health, enhance the quality of care, provide expense care, and perhaps accelerate illness diagnostics and prevention. MPCs converts a stand-alone device's observation and computations activities into a remote monitor system. Specialists from seven prominent universities and institutions collaborate to create significantly more highly accurate cardiac and device simulations than are presently available. This is called Cyber Heart. The platform will verify and evaluate medical equipment more quickly and cheaply than current approaches. Cyber Heart can sometimes be utilized to create optimum, patient-specific medical therapy, minimizing diagnostic accuracy. They are individuals or groups who exploit the growth of technology to conduct cyber-crimes to obtain personally identifiable information from organizations or enterprises to make money. The government employs a team of professional hacker attacks adept at finding and exploiting security flaws before they are corrected. These are malware-based cybercriminals who steal and resell sensitive medical information from healthcare organizations for personal benefit. They intend to assault the hospital workers to take advantage of a healthcare network; surveillance system. This one is readily achieved by implementing emails to recipients and duping them into clicking on a link that allows them to retrieve passwords and other information.

List of Topics Include

- ❖ New frontiers cyber-physical in cloud computing and health care application
- ❖ Cyber-physical system based on WBAN in medical application

- ❖ Digital Twin in the cyber-physical system and the Internet of things
- ❖ Types of Energy, Harvesting Low, Power Devices in CPS
- ❖ Cognitive Cyber-Physical System and Cyber-Physical and Medical System technology
- ❖ foundations for Industry 4.0
- ❖ New Frontiers of Survey of research on data corruption in cyber-physical systems
- ❖ Next-generation Smartphone platforms make ideal mobile Cyber-physical systems
- ❖ Cyber-physical systems for IoT and Industrial Internet
- ❖ Smart cities and smart homes in the future of cyber-physical systems
- ❖ CCPS and CPMS management models for integrity, uniformity, uptime, and reliability
- ❖ Realizing Smart manufacturing of CPS technology
- ❖ Secured health care methods for CPS

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