

# From Wireless Sensor Networks towards Cyber Physical Systems

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## Abstract

In the past two decades, a lot of research activities have been dedicated to the fields of mobile ad hoc network (MANET) and wireless sensor networks (WSN). More recently, the cyber physical system (CPS) has emerged as a promising direction to enrich the interactions between physical and virtual worlds. In this article, we first review some research activities in WSN, including networking issues and coverage and deployment issues. Then, we review some CPS platforms and systems that have been developed recently, including health care, navigation, rescue, intelligent transportation, social networking, and gaming applications. Through these reviews, we hope to demonstrate how CPS applications exploit the physical information collected by WSNs to bridge real and cyber spaces and identify important research challenges related to CPS designs.

Keyword : Cyber physical system, Internet technology, Mobile ad hoc network, Pervasive computing, Sensing and actuation, Wireless sensor network