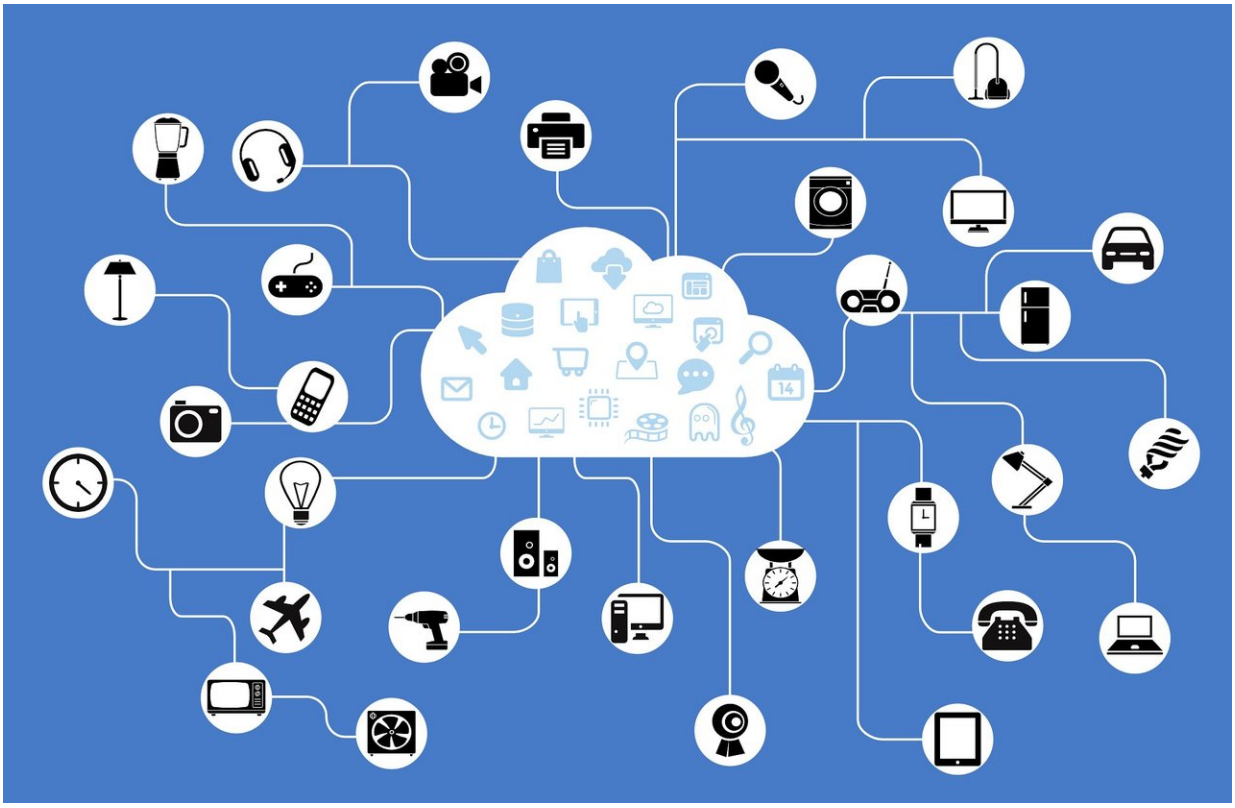
Secure data communication IoT and wireless sensor network for COVID-19

June 16 2021, by David Bradley



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The Internet of Things (IoT) has been much flaunted as the future of sensors and controllers allowing remote access to environmental and other information and facilitating feedback systems that would otherwise require human intervention. In the wake of the COVID-19 pandemic,

remote sensing and remote control of equipment has become increasingly important.

IoT devices already allow many tasks to be carried out in a wide variety of realms across industry, medicine, agriculture, environmental protection and much more. The emergence of a lethal, infectious disease that requires social distancing and increasing pressure on workers to work from home means that the IoT has an increasingly important role to play that will allow normality to continue for many systems and processes without people needing to be in the field, as it were.

Given that scientists are predicting that future pandemics may well be worse still in a world of drastic climate change and the problems that brings, the IoT could be set to become the new-normal that allows life to go on despite these problems. We might even be able to position ourselves using the IoT to pre-empt the issues that will inevitably arise in the next pandemic and as climate change leads to great unpredictability in weather patterns, sea levels, and other problems.

Anto Merline Manoharan of Anna University, in Chennai and M.G. Sumithra of the KPR Institute of Engineering and Technology, in Coimbatore, Tamil Nadu, India, discuss an IoT technology inextricably linked to the COVID-19 pandemic. Specifically, the team describes secure IoT integrated with a wireless sensor network more monitoring the health condition of an infected patient. Writing in the International Journal of Sensor Networks, the team also explains their novel encryption system to ensure patient privacy. Currently, the encryption protocol is implemented on the server, the next step will be to port that software to the IoT devices and the wireless network itself, the team adds.

More information: Anto Merline Manoharan et al, Secure data communication IoT and wireless sensor network for COVID-19,

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