Making full use of AI and simulation technologies across different fields for a human-centered society

Platform for the decision making in the response to COVID-19 pandemic using CPS model

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Summary: COVID-19 is an emerging infectious disease that has many of unknown issues. Therefore, the people's appropriate behaviors against the risk of infection is crucial.

We develop "Disease monitoring and information systems for COVID-19." This system is made by the CPS model that combines the comprehensively developed algorithms for infection/severity risks with the urban structure model that is reflected by the environmental factors and spreading model of infection. We send the useful epidemiological and clinical information from this system such as hazard maps and infection risk alerts and support people's decision making in the response to the risks of infection and reduce severity of COVID-19. In addition, for the people who have difficulty to receive IoT information, we build a mechanism to deliver information as the base stations by local medical and nursing organizations. Consequently, we would establish the platform for the decision making in the response to COVID-19 pandemic and the further emerging infectious diseases.

