

Talk to the Bridge: A New Approach in Structural Health Monitoring Based on the Internet of Things

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SUMMARY

To make any infrastructure such bridges SENSEable is well one of the missions that the new coming Belgian studio CGEOS – Creative Geosensing is pursuing. In that paper, the author will report the case of a new pedestrian bridge projected to be build over the Meuse river in Namur city and that will be part of the new Smart City project “Namur Innovative City Lab”. Last decades of development in structural health monitoring of such infrastructures made today possible to integrate much more sensors at an affordable cost to communicate not only with the engineers and technicians responsible for the maintenance but also with the users, the street people. In that paper, the author is reviewing that new approach that can be extended to any other infrastructure. After all, talking to the bridge will become soon a reality that the Internet of Things is making possible. The author is also rising up new developments needed to convert the SENSEable data collected in real time from the sensors into a language. There is no doubt that often responsible of engineering infrastructures are lacking of knowledge about the behaviour and the fatigue state of these assets. With this new approach, they will soon talk to the bridge and get bridge’s feelings!