

Monitoring of the dynamic behavior of civil and building structures

Infrastructures and construction area of Spanish technology centre is offering a monitoring of dynamic behaviour of civil and building structures system to companies and administrations interested in using new methods to control their buildings and civil infrastructures so their lifetime increased. Partnerships sought are services agreement with public administrations and companies, and research cooperation with any type of entity in the field of construction engineering.

Spanish horizontally integrated technology centre specialized in offering global solutions to companies. It provides them with over 20 years of experience in developments, processes, systems and products. It operates in five economic sectors: industry, energy and environment, construction and infrastructure, agrofood, health and quality of life. Controlling infrastructures (a bridge, a building) is mandatory, not only at the time of creating one, but also if it is already built. During the infrastructure's lifetime, many issues can affect their functionality and safety. The process of evaluating and monitoring the dynamic behaviour of civil edification infrastructures, punctual or periodically, is very important. Currently, the state of the art on monitoring structures is based on determining internal forces (axial, cutting, moments) and deformations of a structure, based on: a given form of the structure, the size and properties of the material used in the elements and the loads applied. Spanish technology centre has broad experience in optimising processes and technologies to offer solutions for civil infrastructures monitoring. More particularly, it counts with an evaluation system based on a network of sensors able to measure the behaviour of these structures while producing a regular service. Technology centre's infrastructure's monitoring system is equipped with: - A follow up system of critical parameters, deformations, stirrups settlements, own frequencies (construction phase, collaboration with designers and constructors) which implies a saving cost on the different stages of the construction phase - Complementary measurements during the static and dynamic tests - Obtaining of real structural parameters to be updated with the computational model - Regular safeguarding of the infrastructure and inspections control - Potential failures detection - Remote access to the supervision system also provided with an alarm system The technology centre offers its system and know-how to companies, administrations and private owners interested in: - Investing in new technologies to supervise the behaviour of their infrastructures. - Investing in new systems to prevent potential damages on their civil infrastructures due to external agents. - Access to a supervision system that they can control on real time. - Saving costs on any phase of the building construction. Partners sought: - For services agreement are companies, especially construction and infrastructure maintenance sector, private owners and public administrations. The expected outcome from this collaboration is offering its specific technological services. - The technology centre is also interested in research cooperation agreement with entities (companies, universities or research and technology centres) interested in developing a project for future calls in Horizon 2020 on construction engineering. The expected outcomes from this collaboration are to reach research agreements with interested entities.

Identificativo della Proposta: TOES20180319001

Tipo: Technology Offer

Paese: Spain

Presentazione: 19/03/2018

Ultimo aggiornamento: 16/05/2018

Scadenza: 17/05/2019