



Transfer / Collaboration Opportunity

IR thermography

Research Center / Laboratory : **CRISIA – Département de Construction et Génie Civil**
 University College : **Haute Ecole Robert Schuman**
 Field : **Materials, Civil Engineering, Concrete, Defects detection, Quality control**

KEYWORDS

- Civil Engineering
- Concrete structures
- Non destructive analysis
- Infrared thermography (active / passive)
- Defects / Diseases
- Rock pockets
- Delamination

Description :

The present technological offer relates to processes for detecting defects like rock pockets, delamination and disaggregation in existing concrete structures of civil engineering with a rapid, efficient and non destructive technique: the infrared thermography.

These processes lie in the detection of different thermal emissivities between healthy and defective concrete zones in structures of civil engineering.

Benefits / Advantages :

The use of infrared thermography to detect rock pockets that are the most difficult defects to detect
 The considerable dimensions of the surfaces to study (several dozens of m² in one shot)
 The development of alternative heating techniques dealing with special aspects of civil engineering structures: surface emissivity variations, intrusive reflections, influence of the wind, etc.

Application Sectors

- Bridges;
- Water treatment plants;
- Concrete columns used in building;
- Concrete prefabricated elements (such as lintels, beams, stairs, buildings).

Intellectual Properties	TRL	Type of Partnership Sought
Knowhow	4	Knowhow transfer/ Academic collaboration/ Industrial collaboration