

## Rebars and cables localization: ground penetrating radar and its specific algorithm

Several on-site testing technologies allowing cables and rebars mapping in concrete structures have entered the market. Rebars and cables localization process is generally used in the domain of inspection control. It allows to identify safe drilling and sawing spots. Nevertheless, these conventional methods have clear limitations: lack of precision and complexity of the process (need for fully qualified persons).

### COMPETITIVE ADVANTAGES

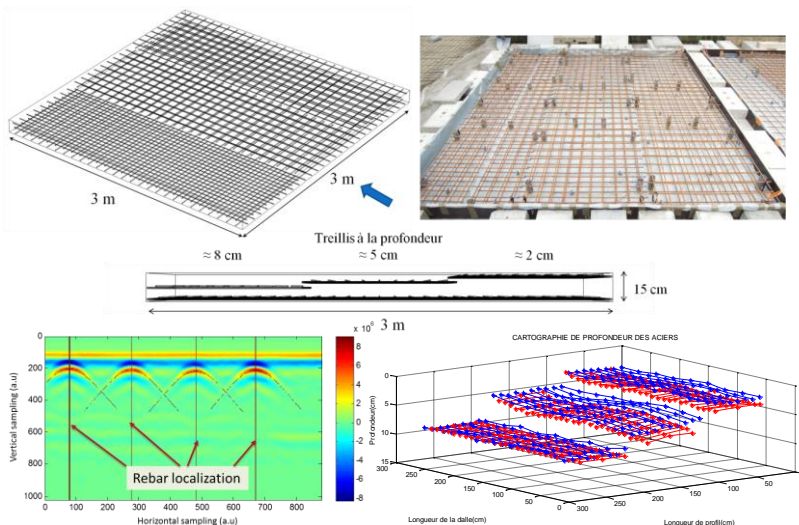
- Rapidity
- Low-cost
- Accuracy
- Easy to handle

### DESCRIPTION\*

- Algorithm based on multi-offset technique which allows:
  - Real-time analysis of radar data collected by 2 reception antennas
  - 1st rebar mapping
  - Qualitative moisture content evaluation (quantitative with calibration)
- No information about the structure is needed
- Fully automated analysis

### APPLICATIONS

- Rebar localization
- Quality assessment
- Floors, decks, slabs, balconies... inspection
- Drilling spots identification
- Concrete structure load capacity calculation



### INTELLECTUAL PROPERTY

- Software

### DEVELOPMENT STAGE

- Technology validated at lab level



### LABORATORY



### TECHNICAL SPECIFICATIONS

Max. depth for localization	Up to 8 cm
Lateral accuracy	+/- 1 mm
Depth accuracy	+/- 3 mm

### CONTACT

T. +33 (0)5 62 25 50 60  
 systemes@toulouse-tech-transfer.com  
 www.toulouse-tech-transfer.com

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