

Portfolio of services in the field of traffic infrastructure

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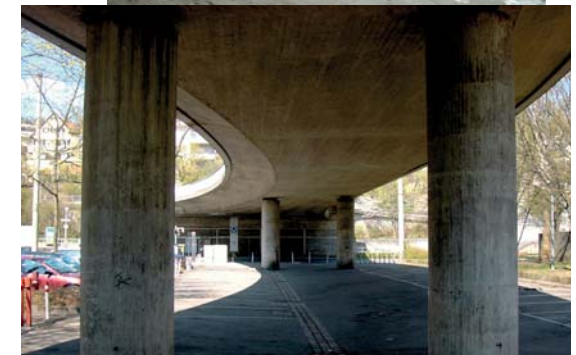
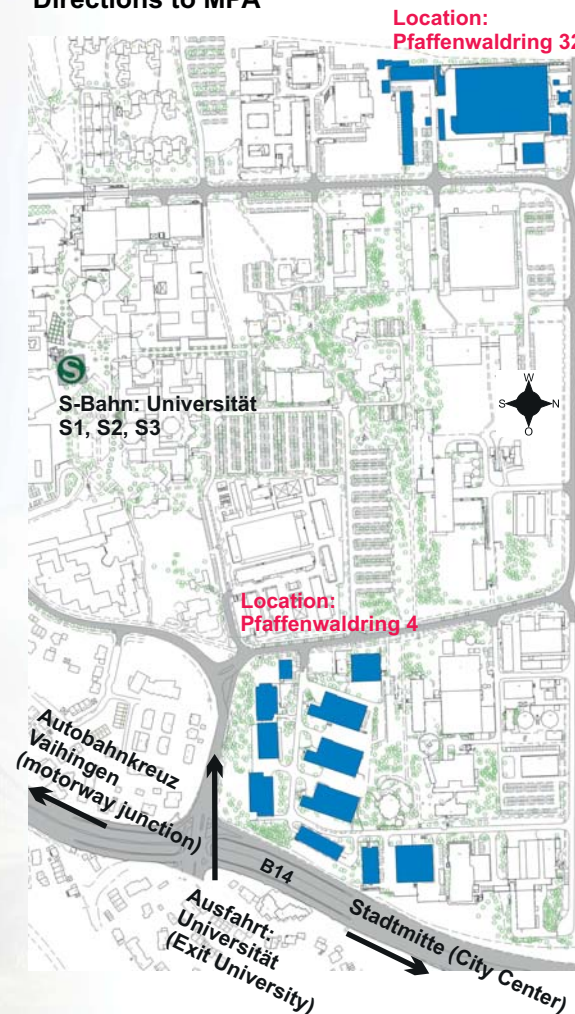
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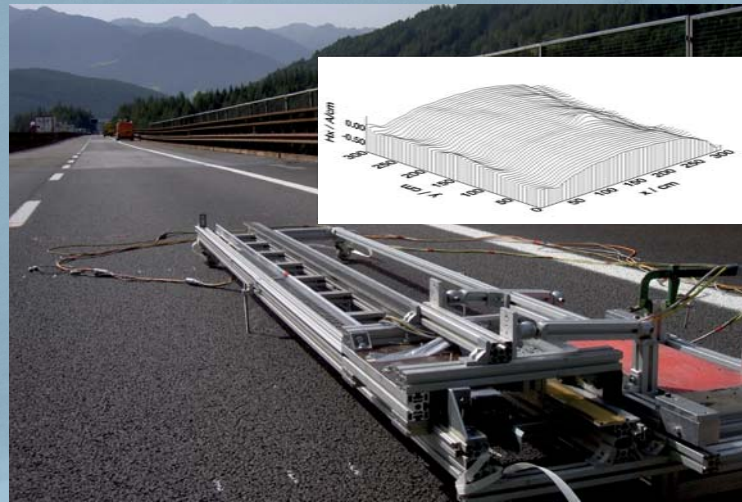
University of Stuttgart
Germany

Services

- Examination of reinforced and prestressed concrete structures regarding corrosion
- Nondestructive assessment of structural and survey of reinforced and prestressed concrete structures
- Magnetic leakage flux measurement for detection of fractures (prestressing steel)
- Half cell potential mapping for nondestructive detection of corroding reinforcement
- Electromagnetic methods for the detection and localization of rebars and determination of concrete cover
- Acoustic methods (impact echo, ultrasonic techniques) for detection of voids, defects, wall thickness
- Development and application of sensor networks for monitoring strain, deformation, temperature, moisture, vibration
- Assessment of susceptibility of prestressing steels to stress corrosion cracking
- Corrosion testing on metallic and organic coatings
- Electrochemical corrosion testing
- Corrosion monitoring
- Mechanical testing of reinforcing and prestressing steel
- Mechanical testing of concrete members
- Analysis and assessment of concrete and concrete components (freeze–thawing cycles, deicing salt, ASR, chemical attack)
- Basic research and proof of usability of materials and components for sliding parts and bearings in civil engineering
- Verification of load bearing capacity of foundation piles and anchors (in cooperation with partner IGS)
- Loading tests of bridges and structures
- Testing the durability of concrete (freeze–thawing cycles, deicing salt, ASR, chemical attack, air void characteristics, chloride penetration resistance)
- Mechanical strength testing of concrete (elastic modulus, flexural-/compressive strength, creepage)

Supervision, Certification

- Third-party supervision and certification of structural bearings for bridges according to European and national standards
- Control checks according to ZTV Beton-STB
- Supervision center for concrete (DIN 1045-3 and ZTV-ING)
- Surveillance and approval of anchors for prestressing tendons
- Surveillance and certification of bridge sealing systems on concrete and steel (EN 14695, ZTV-ING: TL-BEL-B, TL-BEL-ST, TL-BEL-EP)
- Surveillance according to ZTV KOR-steel-structures



Examination of longitudinal prestressing tendons in a bridge by means of magnetic leakage flux measurement, and fracture signal

Fracture of prestressed tendon in a bridge



Responsible Units for traffic infrastructure services

