## 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

The Materials Testing Institute University of Stuttgart is a central facility of the university of Stuttgart. The institute operates successfully in materials testing and research in almost all areas of mechanical and plant engineering as well as civil engineering.

## Contact





Dr.-Ing. Michael Stegmaier Department: Mineral Building Materials Phone: +49(0)711 685 62256 E-Mail: michael.stegmaier@mpa.uni-stuttgart.de





Dr. rer. nat. Jürgen Frick Department: Building Preservation Phone: +49(0)711 685 63381 E-Mail: juergen.frick@mpa.uni-stuttgart.de





Dr.-Ing. Veit Birtel Dep.: Building Construction and Component Testing Phone: +49(0)711 685 62203 E-Mail: veit.birtel@mpa.uni-stuttgart.de





Dipl.-Ing. Siegfried Gerber Department: Calibration, Bearing, Passive Safety Phone: +49(0)711 685 62557 E-Mail: siegfried.gerber@mpa.uni-stuttgart.de



## Portfolio of services in the field of traffic infrastructure





University of Stuttgart Germany



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



**Responsible Units for traffic infrastructure services** 



## 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