

## **Monitoring based lifetime assessment of concrete structures**

### **Research Project MOSES**

In order to use structures up to their real end of lifetime it is of great importance to know the degree of damage of the structure. By using the actual Codes and Specifications (e.g. CEB-FIP Model Code 2010 [1]) it is not possible to define the real degree of deterioration. A practicable way of determining the degree on-site is the employment of non-destructive testing methods (monitoring). This field until now is not finally explored. The constant monitoring from the erection of a structure up to the end of its lifetime is seen as a very promising possibility to assess the residual lifetime. In this article fatigue tests on concrete specimens, accompanied with ultrasonic and acoustic emission measurements, will be investigated closer and a possible way for the determination of the degree of damage and lifetime assessment will be proposed.