

# The first year of activities of the "Observatory Claudio Ceccoli", on the defects of the building structures

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# **Summary**

A research centre entitled "Observatory Claudio Ceccoli" focused on Forensic Engineer has been established on January 2012 within the Department of Civil, Environmental and Materials Engineering (DICAM) of the Faculty of Engineering, University of Bologna. It represents one of the few Italian research centres which is entirely devoted in Forensic Engineer-related issues. The activities of the centre involve the interaction of several "actors" such as the academia, practical engineers, architects, construction companies, lawyers, insurances.

The main scientific objective of the centre is to promote research on the building defects through a systematic study of real cases as available from the Court of Bologna. The main practical objective is the development of a web-based database collecting all the juridical cases available from the Court of Bologna involving defects on building structures.

The present paper illustrates the aims of the centre and presents some results from the first year of activities.

**Keywords:** Forensic Engineer, building defects.

## 1. Introduction

Forensic engineering, according to the National Academy of Forensic Engineers (NAFE), is "the application of the art and science of engineering in matters which are in, or may possibly relate to, the jurisprudence system, inclusive of alternative dispute resolution." Forensic engineers investigate and reconstruct failures in a variety of systems, often determining the cause and liability of an event as it moves toward, or into, a courtroom setting.

Forensic engineering, which draws on many different disciplines, is of relatively recent origin as a subject in its own right. The National Academy of Forensic Engineer (NAFE [1]) was formed in 1982 in New York to advance the skill of engineers who serve as engineering consultants to the parts involved in the litigations as expert witnesses in courts, arbitration proceedings. Its aim is to educate professional engineers practicing forensic engineering and promote high standards of professional ethics and excellence of practice. In Italy the development of the practice of the forensic engineer as an own field is more limited, since the establishment of the National Association of Forensic (AIF [2]) Engineer is very recent (2009). The institution of the AIF has been preceded by the master program in forensic engineer, established in Naples by Nicola Augenti (current director) on August 6, 2008, which covers a broad spectrum of fields related to both civil and industrial engineering together with the fundamentals of law and specific seminars on structural failure prediction and assessment [3-12].

In Italy the professional engineer acting as consultant may serve either the judge as the "Court-Appointed Technician" (known as CTU) or the involved parts as the "Part-Appointed Technician"