

1. Record Nr.	UNINA9910647242103321
Titolo	Assessment, diagnosis and service life prediction // Ana Silva, editor
Pubbl/distr/stampa	[Place of publication not identified] : , : MDPI - Multidisciplinary Digital Publishing Institute, , [2023] ©2023
ISBN	3-0365-6236-2
Descrizione fisica	1 online resource (202 pages)
Disciplina	696
Soggetti	Buildings - Environmental engineering Sustainable buildings
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	About the Editor -- Assessment, Diagnosis and Service Life Prediction -- Moisture Accumulation in Building Facades Exposed to Accelerated Artificial Climatic Ageing-A Complementary Analysis to NT Build 495 -- Improvement of the Inspection Interval of Highway Bridges through Predictive Models of Deterioration -- How Long Can a Wood Flooring System Last? -- Degradation Assessment of Natural Stone Claddings over Their Service Life: Comparison between Tehran (Iran) and Lisbon (Portugal) -- Most Frequent Problems of Building Structures of Urban Apartment Buildings from 2nd Half of 19th Century and the Start of 20th Century -- Critical Analysis about Emerging Technologies for Building's Facade Inspection -- Microclimate of Air Cavities in Ventilated Roof and Facade Systems in Nordic Climates -- Structural Performance Assessment of Innovative Hollow Cellular Panels for Modular Flooring System -- Insurance Policies for Condition-Based Maintenance Plans of ETICS -- Integrated Building Maintenance and Safety Framework: Educational and Public Facilities Case Study.
Sommario/riassunto	Service life prediction is crucial for the adoption of more sustainable solutions, allowing developers to optimize the costs and environmental impact of buildings during their life cycle. An accurate assessment of the service life of buildings requires a thorough understanding of the degradation mechanisms and behaviour of the construction materials. Building pathology assessment methods characterize the deterioration

state of buildings, using specific measurable properties as indicators. Based on this information, different service life prediction methodologies can be defined to provide reliable data concerning the most probable failure time of whole buildings and individual components according to their characteristics and their age. This Special Issue provides new perspectives on the existing knowledge related with various aspects of the Assessment, Diagnosis and Service Life Prediction of buildings and their components. The ten original research studies published in this Special Issue result from research centres and university departments of Civil and Construction Engineering, Safety Management, Environmental Engineering, Geotechnical Engineering, and Architecture and the Built Environment, with relevant contributions from experts from Australia, Brazil, the Czech Republic, Hong Kong, Iran, Israel, Norway, Portugal, and Taiwan. The studies included in this Special Issue address topics related to: Building pathology assessment methods; Diagnosis of defects in buildings and components; Appropriate intervention and repair techniques; Deterministic and stochastic service life prediction models.
