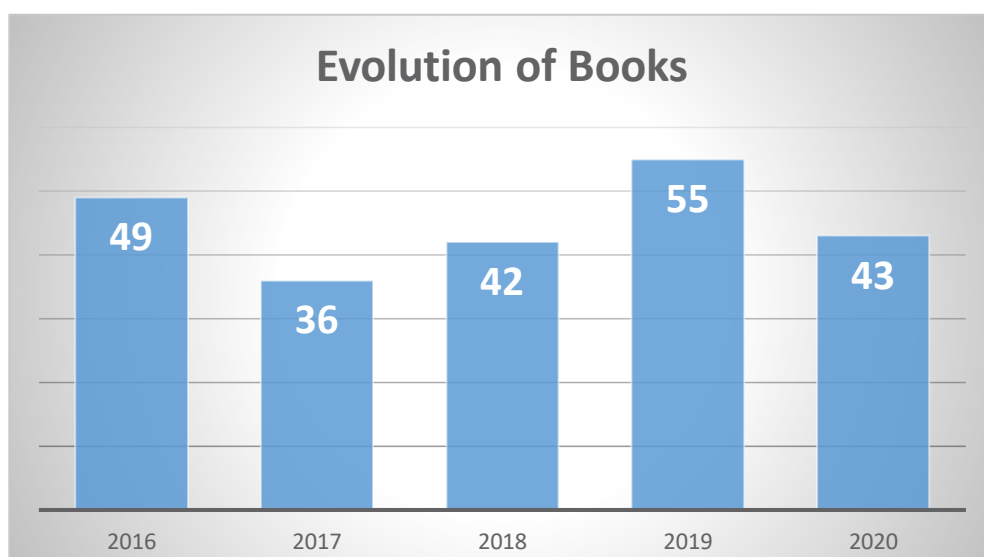


BOOKS

EVOLUTION OF BOOKS UNDER AFFILIATIONS OF UPT 2016 - 2020

A published book is indisputable evidence of research that has been performed, completed, and accepted by peers. Book is also an indicator of achievement of a certain academic standard. Besides communication of a finalised piece of research, the book is the basis for further opinions, views and critiques from fellow professionals and academics separated by time and distance. Most importantly, it represents the only permanent record of scientific work that has been completed.



In this chapter we present the books written by our professors and researchers, published at Romanian publishers as well as at international prestigious publishers.

Books in highlight

EUROPEAN RECOMMENDATIONS FOR REUSE OF STEEL PRODUCTS IN SINGLE-STOREY BUILDINGS

Ana M. Girão Coelho, Ricardo Pimentel, Viorel Ungureanu, Petr Hradil, Jyrki Kesti

Published by: European Convention for Constructional Steelwork, 2020, Pages: 237

ISBN: 978-92-9147-170-6

Short description of the context

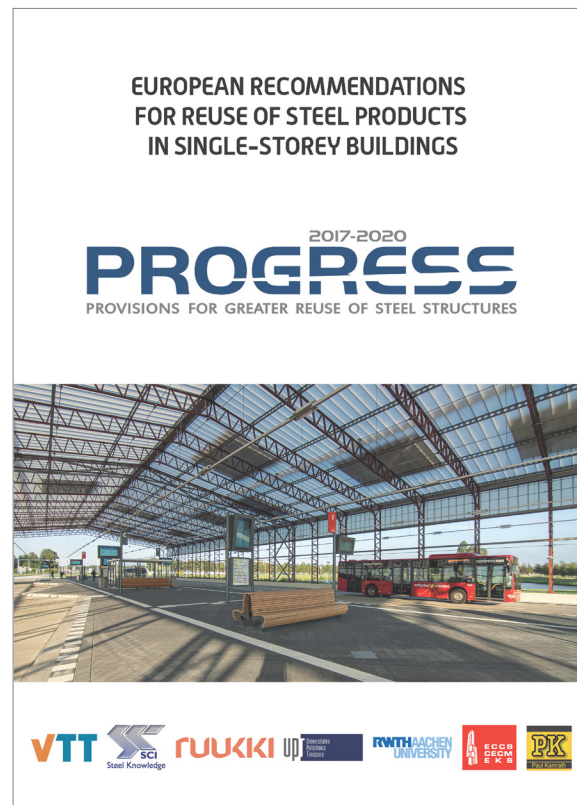
The construction industry needs to develop more sustainable construction practices that lead to a lower carbon footprint and contribute to the circular economy. The 3Rs waste management hierarchy (Reduce-Reuse-Recycle) can be applied in structural engineering to help develop new design approaches and systems that reduce environmental impacts and improve the overall structural efficiency of construction.

Using reclaimed structural steel members on a project is an effective strategy by eliminating the energy required to recycle steelwork into new structural sections.

Purpose and Motivation of the book

The purpose of this publication is to provide recommendations and practical information on the fabrication and detailing of single-storey buildings made from reclaimed steel and on the design of buildings for future demounting and reuse.

These recommendations provide design guidance on the improvement of existing Eurocode based procedures for designs using reclaimed steel products, and provide information on design for future adaptability, demountability and reuse. The emphasis is on single-storey industrial buildings, but the principles can be extended to other types of building. The recommendations are presented as guidelines for the reuse of single storey buildings in the context of Eurocode design.



Summary

The book is divided into three parts:

Part 1: Recommendations for reusing existing single-storey buildings, discusses general technical issues related to the structural use of reclaimed steel from existing single-storey industrial buildings.

Part 2: Recommendations for the design of single-storey buildings to facilitate future deconstruction and reuse cover the design of new buildings with the goals of functionality, ease of fabrication, demountability and future reuse.

Part 3 presents some case studies that illustrate the use of reclaimed steel structures in various EU countries and some of the technical issues that were overcome.

A protocol for condition assessment, sampling and testing of reclaimed steel is given in Appendix A. The derivation of the modified partial factor for the buckling resistance of reused steel members is presented in Appendix B.

EDUCAȚIA PRIN E-LEARNING (E-LEARNING EDUCATION)

Doina BANCIU, Ben-Oni ARDELEAN, Larisa IVAȘCU, Daniel FODOREAN

Published by: Editura Tehnică,
Academia Oamenilor de Știință din România,
2020, Pages: 244
ISBN: 978-606-8636-73-3; 978-973-31-2405-4

Short description of the context

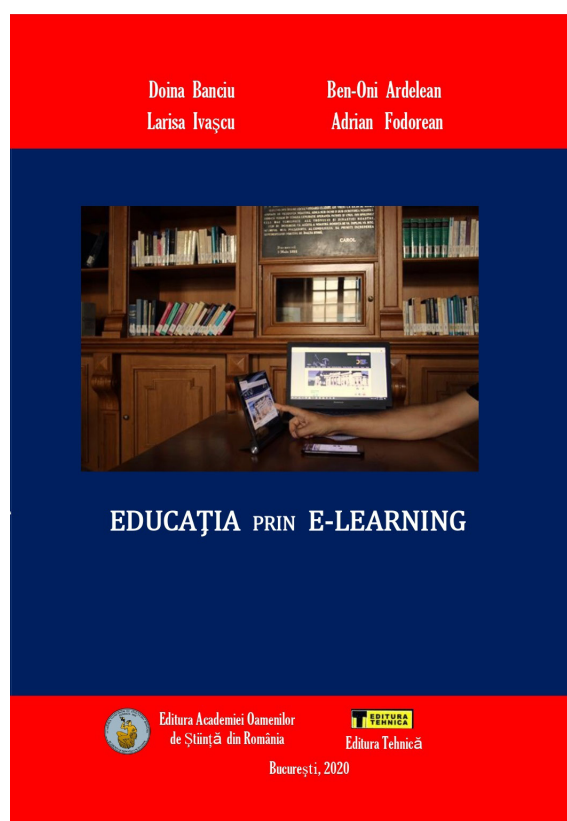
The book is intended to be a user guide both for people involved in the educational process (teachers, tutors, instructors, pupils, students) and for other people who, in the current conditions, need to be informed, communicate and work. Without moving in the community.

Purpose and Motivation of the book

The need to introduce a new line of pedagogical training can be outlined, with an impact on the process of professional-cognitive development “learning - unlearning - relearning”, but which also contributes to the establishment of an emotional comfort for each teacher involved. Before learning something new, it is very good to give up, to “learn” from the old professional constructs, to make room for the new ones. This subject is all the more challenging, as the formation of digital skills is an imperative that challenges both time and educational “times”, and the expectation is not only of students, but also becomes an expectation of the community, transformed into social pressure. And as the relationship between patience and the digital world is not necessarily a biunivocal one, the personality trait (nn. patience) being perceived rather as an element of conservatism, the adjustment of institutional deadlines but also of personal agendas, to the action complexes reserved for digitization, it becomes the next step.

Summary

This book arose from the desire to support the educational process in Romania during this period in which, due to the COVID-19 pandemic, both teachers and students must quickly adapt to the new conditions of teaching - learning and communication. The use of information and communication technology as a tool for the transmission and



acquisition of knowledge has evolved over time with the evolution and spread of computers and communication networks, especially the Internet. Policies and strategies developed at international and national level for building the information society in conjunction with concrete implementation actions in all areas of activity have led to the development of the skills of most citizens, of all ages, in the use of computers. In this context, the transition to the large-scale e-learning process has found a suitable ground, in most cases, for the construction of new forms of education of children and young people in all schooling systems. But with technology, new theories, methods, and practices have emerged in education. The paper briefly presents the theories and methods of e-learning, practical examples of e-learning systems in universities in several countries resulting from an international study and computer tools in support of online education.

ELEMENTE DE ELECTRONICĂ DE PUTERE

Octavian CORNEA

Published by: Orizonturi Universitare, Timișoara,

2020, Pages: 184

ISBN: 978-973-638-647-3

Short description of the context

A brief introduction to an area of electrical engineering that has a significant impact on the industry.

Purpose and Motivation of the book

Convincing the students and engineers in Electrical Engineering of current and future importance of power electronics.

Summary

The main categories of power static converters are presented in four chapters, which cover all the possibilities of energy conversion. The basic topologies are included, for which the operating modes are described, important mathematical expressions are given and, where appropriate, explanations are provided in relation to the power electronic converter behavior at the interface with the AC grid.



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