

## Contents

Anna Derlatka, Piotr Lacki, Wojciech Więckowski, Przemysław Kasza, Marta Pomada	
<b>Experimental tests of bonded steel-OSB composite beam</b>	7
Tatiana Goranskaya, Nina Kazhar	
<b>The theme of ruins in contemporary art</b>	13
Damian Jończyk, Yaroslav Blikharskyy	
<b>Influence of longitudinal composite reinforcement on the structural behavior of glued laminated timber with openings</b>	21
Katarzyna Kaim, Robert Krużel	
<b>Legal aspects of building a house up to 70 m<sup>2</sup> without permission. Is it worth it?</b>	27
Nastassja Kalasońska, Nina Kazhar	
<b>The architectural image of the Church of St. Charles Borromeo in Pinsk</b>	36
Kasim Korkmaz, Adam Bogedain, Luay F. Al-Durzi	
<b>Investigation of advanced self-healing concrete applications in construction</b>	42
Mariusz Kosiń, Inga Iremashvili	
<b>Thermo-humidity parameters of the thermal bridge of external partitions made in traditional and frame technology</b>	50
Izabela Major, Givi Gavardashvili	
<b>Automation and robotization in civil engineering</b>	55
Jacek Nawrot	
<b>Facility management using the Building Information Modeling (BIM) - review of solutions</b>	61
Marlena Rajczyk	
<b>The future of the economy lies in nuclear energy, electric propulsion and hydrogen energy sources</b>	67
Katarzyna Regulska	
<b>Site-won asphalt in the light of the applicable law</b>	73
Nina Sołkiewicz-Kos	
<b>Directions of transformations of public spaces of an academic campus on the example of the Czestochowa University of Technology</b>	80
Nina Sołkiewicz-Kos, Małwina Tubielewicz-Michalczuk	
<b>The concept of developing green areas as an example of creating a social and recreational space</b>	85

7 times bigger than for steel members.

Another ecological material which could increase the bearing capacity of thin-walled steel sections is bamboo. Bamboo is characterised by excellent mechanical properties, including high

Czestochowa University of Technology, Faculty of Civil Engineering, ul. Akademicka 2, 42-200 Czestochowa, Poland  
e-mail: m.kos@polsl.pl, phone: +48 32 267 27 00

Czestochowa University of Technology, Faculty of Civil Engineering, ul. Akademicka 2, 42-200 Czestochowa, Poland  
e-mail: m.tubielewicz@polsl.pl, phone: +48 32 267 27 00

Czestochowa University of Technology, Faculty of Mechanical Engineering and Computer Science, ul. A. Krawieckiego 21, 42-201 Czestochowa, Poland, e-mail: m.michalczuk@polsl.pl, phone: +48 32 267 27 00

Czestochowa University of Technology, Faculty of Civil Engineering, ul. Akademicka 2, 42-200 Czestochowa, Poland  
e-mail: n.kos@polsl.pl, phone: +48 32 267 27 00

Czestochowa University of Technology, Faculty of Civil Engineering, ul. Akademicka 2, 42-200 Czestochowa, Poland  
e-mail: m.tubielewicz@polsl.pl, phone: +48 32 267 27 00