

Editorial

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Unlike the themed issues of the journal, the general issues are like Michelin star restaurant recipes – they are offering exciting variety of papers in wide range of areas and their success is based on precise balance and the high quality of the offered articles. For this specific general issue we are looking for a combination of:

- historic harbour structures and their behaviour under sea-wave loading.
- analysis of the relatively unknown aspects of development of Fire Protection standards aiming to prevent cases such as Grenfell Tower fire, including corresponding code developments.
- shared with a very interesting book review on Fire-resistant Concrete Structures.
- publication on seismic behaviour and damages on traditional building structures in Tripura, India.
- a couple of discussion-provoking briefings on over-value-engineered approach and on Temporary Works forum activities.

The introductory paper is the beginning of the presentation of three extremely interesting case studies about historic harbours with breakwater wall structures, written by Allsop and Bruce (2019). The work is divided in the following parts: ‘Failure analysis of historic vertical breakwaters, Part 1: Wick’, presented in this general issue of the journal, and ‘Part 2: Alderney and Dover’, planned to be one of the main publications for the themed issue ‘The role of water in structural failures’, which is expected very soon.

Wick is an amazing stone masonry structure in North-East Scotland constructed in 1811. The presented research is derived from detailed studies of historical records combined with numerical analysis. It includes analysis of representative cross sections of the wall, estimation of the wave conditions with corresponding depth-limiting and impulsive breaking effects. The dynamic response of the structure is investigated under wide range of wave loads, such as wave impact, main momentum and impulsive loads, sliding and overturning effects and comprises estimation of corresponding factors of safety. Presented analysis allows to estimate the existing condition and to discover some of the lost secrets of the stone masonry wall designers from the beginning of 19th Century.

After the introductory paper the readers could find two briefing articles. The first one is ‘Are engineers being over-value-engineered?’ by Yvonne Ainsworth (Ainsworth, 2019). It is presenting over-value-engineered approach as one of the main problems in the professional area of geotechnical contracting engineering services. The expectations of reduced costs, shorter

programme periods and fewer defects are in contradiction with predominantly wider risk profiles of brownfield and difficult sites investigated nowadays. The author is expressing her concern about the way the contracting industry does business and the negative effect of purely financial approach on the quality of the complicated geotechnical investigations and the ability to attract, to stimulate the developing and to retain experts in this crucial area of the construction process.

Bill Hewlett is the author of the second briefing article about Temporary Works forum (TWf) (Hewlett, 2019). He is Founding Chairman of TWf and continued to act as Chair for the period between 2009 and 2017. The article is overviewing the process of creation, establishment and consecutive development of the forum and is written as part of activities reflecting its 10th Anniversary. The author is discussing the need for professional organisations like TWf and the benefits from the remarkable accomplishments during the relatively short period of time. The formation of the forum is of extreme importance to improve further Civil Engineering activities in UK and worldwide, and to fill the gaps in knowledge and perception about the crucial role of the design and execution of the temporary works as part of the construction process.

The three publications connected with fire safety theme in this issue are beginning with the article by Angus Law and Neal Butterworth (2019). It is discussing the problems with combustible cladding and latest developments of legislation resulting from the Grenfell Tower fire. The authors are investigating the process of decision-taking and the implications connected with the development of Regulations 7 (2, 3 and 4) of the Building (amendment) Regulations 2018 and the adopted prescriptive approach. They are warning about possible variations of the interpretation and potential ‘side effects’ of the implementation, such as the risk of imposing excessive limitations on the applications of structural timber.

As a logical addition to the previous article the following by Spearpoint *et al.* (2019) is presented. The adopted approach is a review and analysis of the progress of fire safety codes in UK. The most significant development, the creation of corresponding British Standard, started in 1989 and was completed in 2001, creating a new era of development of fire safety codes – the opportunity of using non-prescriptive approach. The latest edition of BS 7974 in 2019 (with PD 7974 - 1 to 7) takes into consideration more specific characteristics of fire development for buildings and structures with a non-routine way of fire safety design. The paper offers detailed information and analysis of chronological development of this extremely important part of Building Regulations in UK.

Analysis of different types of damages on buildings due to moderate earthquake loading is presented by Tripura and Sangma (2019). They are discussing the failure analysis of earthen, masonry and concrete buildings during 2017 Tripura earthquake in India. The conducted research includes field observations, analysis and suggestions for remedial measures. Very interesting results are obtained from the analysis of the damages on non-engineered earthen buildings, constructed using very old construction technology. Earthen structures and their modifications are attracting academic interest lately as potential option for new developments aiming to reduce carbon dioxide emissions from production of traditional bricks. The work is based on a damage survey conducted by authors with support from the National Institute of Technology, Agartala, India.

Continuing the Fire Safety theme of this General Edition, Peter Robery (2019) is presenting a review of the book 'Design of Fire-resistant Concrete Structures' by Danish author Kristian Dahl Hertz. The book is relevant to the Forensic Engineering area and will be helpful for fire damage assessments including estimation of the extent, duration and severity of the fire development. It includes information about properties of steel reinforcement and concrete during their exposure to fire effects and as residual properties after fire. Useful information from forensic point of view, such as modelling of heat transfer, temperature profiles and corresponding stress distribution, influence on anchorage and bond strength and explosive spalling, is included. The book is based on relatively unknown UK, Scandinavian, German and Russian sources and

simultaneously is relevant to UK design practice including reference to 2011 Guidance from Concrete Centre and updated with the latest Eurocode recommendations.

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