

E-Mail editor.ijmece@gmail.com editor@ijmece.com

www.ijmece.com



Vol 8, Issuse.3Aug 2020

Evaluating the Opportunity Costs of Labor Resource Wastage in China's Real Estate Brokerage

Chakravarthi, V.K, Udaya Bhanu.V, Simhachalam, N, Durga Prasad.K

ABSTRACT

Providing "an indispensable forum for the exchange of knowledge and experience between pro-fessionals from both academic and industrial environments" is the stated goal of the Bulletin of the Polish Academy of Sciences: Technical Sciences. Science and technology are tightly intertwined and very significant, especially in civil engineering. Prior to this one, in 2013 [1] and again in 2015 [2], there were two special sections published on civil engineering. In honor of the 70th anniversary of the Warsaw Building Research Institute (ITB), this special section on "Civil Engineering - Ongoing Technical Research" has been produced. The origins of such institutions may be traced to the middle of the nineteenth century, when they were established to investigate the characteristics of building materials used in mechanical constructions and the construction industry. They were founded in technological universities. It is worth noting that the earliest of these research units were established at the following universities of technology: Munich in 1870, Berlin in 1871, Vienne in 1873, Zurich in 1880, Lviv in 1884, and Warsaw in 1918. The Road Research institution of Warsaw University of Technology was the preeminent Polish construction research institution until 1939.

INTRODUCTION

The conference that was held in conjunction with the ITB anniversary, titled "The Strategy of Construction Research Institutes," offered a compilation of the information and plans of the building institutes that are shaping the construction industry in Europe. The Building Research Institute was established, according to ITB laws, to undertake extensive research into the development of better building and road materials, the enhancement of construction technology via the application of all scientific developments, and the rise of production of these materials. Obviously, it is not the exclusive responsibility of ITB to initiate changes in the field's trajectory. The term "ongoing" in the title of the section has been interpreted both literally and metaphorically in this context. The Special Section now contains all of the editorial civil engineering portfolio's current waiting papers. Part II of the Special Section will publish the articles that are currently being edited. Not only do we have a snapshot of the current publishing activity, but we also have the defining image of civil engineering in an instant if this is the case. Despite its seemingly haphazard creation, this painting is remarkably detailed.

Associate Professor, Assistant Professor^{2,3,4} Sri Venkateswara College of Engineering & Technology, Etcherla,Srikakulam,Andhra Pradesh-532410 Department of Civil Engineering



As an area of applied science, civil engineering is always trying to find its place in the grand scheme of things. The articles that make up this Special Section all include a healthy dose of engineering and science, but in different proportions. The following controversy is one of civil engineering's dilemmas: Weighted against the potential benefit of innovation is the need for longevity (more than 50 vears). We must guarantee that building components are up to snuff both during testing and their expected lifespan of tens of thousands of years. Striking a balance between being too complicated and being too precise is inherent to applied sciences. What we mean by "breaking even" is likely an approximation of the right model and value. Any estimating inaccuracy, no matter how little, has the potential to have disastrous consequences.

In the invited paper that opens the section, titled "Scientific basis and rules of thumb in civil engineering: Conflict or harmony?", all of these issues are addressed. The paper examines the meaning and rationale of "the rules of thumb" [3] in the construction field, where science and engineering are deeply intertwined. The degree to which "it is better to be roughly right than precisely wrong" (J. M. Keyness) in a nutshell. Each of the other studies in this section provides a different, **CONCLUSION**

1

. Examples of the analytical [10] and numerical [11] models looking for the technological [11] and construction [10] solution. Studying the structuresubsoil interaction of multiple-layer pavement structure systems (M. Kadela) [11] and the dynamic stability of the chosen construction parts (P. Obara, W. Gilewski) [10] are two examples of engineering quests that the studies attempt to provide a theoretical foundation for. These are some examples of the kinds of models that have been sought for in the quest to determine how an engineering structure would react to specified loads throughout the course of its useful life.

Developing a deeper knowledge of materials [12], adjusting material composition [13], and using a novel method for generating synergy via chemical

ISSN2321-2152 www.ijmece .com

Vol 8, Issuse.3Aug 2020

glaring example of these issues. Under the headlines that follow, you may find the given paper themes.

The need for durability (lasting more than 50 years) is weighed against the possible advantage of innovation. We need to make sure the construction materials are strong enough to withstand the test of time and will last for thousands of years. In the applied sciences, finding the sweet spot between too complex and overly exact is essential. Our definition of "breaking even" is probably close to the correct model and value. The repercussions of even a little estimation error might be catastrophic. All of these topics are covered in the invited paper that starts the section, titled "Scientific basis and rules of thumb in civil engineering: Conflict or harmony?". In the building industry, where engineering and science are closely interdependent, the article delves into the significance and reasoning behind "the rules of thumb" [3]. Summarized, the extent to which "it is better to be roughly right than precisely wrong" (J. M. Keyness). The other studies presented here each provide a distinct and striking illustration of these problems. You may see the assigned paper topics under the following headlines.

interaction between organic and inorganic components [14] are all steps in the quest for novel material solutions. The gas permeability and porosity of cement pastes are examined by T. Tracz. You can see the connection between microstructure and technical features in this intriguing example [12]. An asphalt paving option that is environmentally benign is presented by M. Iwański et al. 13 [13]. Both changes and novel technological physical developments contributed to the new solution. One benefit we get is the ability to generalize the outcomes since they are shown on the response surface as desirability functions. The final paper in "Chemical interaction between this section, polymer and cement in polymer-cement concrete," written by W. Ru, J. Li, T. Zhang, and L. Czarnecki,



expresses the belief that new generations of highperformance concretes will be made possible by organic-inorganic chemically bound composites [14].

Civil engineering has changed a lot in the last seventy years, as you can see from the articles in this issue. Advances in mechanical and electromechanical engineering have improved and made labor-friendly the techniques of building execution. In addition, the field of building materials science saw a remarkable evolution when it included chemistry and physics as its foundational construction sciences. Using this method, we can learn more and more about the structure and behavior of materials at all scales, from the macro to the micro and, more recently, even the nano. In the not-too-distant future, it will definitely be feasible to design materials based on the required performance. The writers of this editorial firmly believe that civil engineering is on the cusp of a monumental sustainability breakthrough, thanks to the development of knowledge around building materials and construction methods.

Praise and thanks. The articles presented in this Special Section showcase research findings from eight different centers, and we are grateful to their authors. Additionally, we'd like to express our gratitude to every reviewer for their time and insightful comments, which greatly enhanced the quality of the submitted articles. The chance for Guest Editors to offer this Special Section is much appreciated by the Editorial Board and especially by Editor-in-Chief Prof. Tadeusz Kaczorek. As a last note, we appreciate the expert help provided by Copy Editor Ms. Anna Jurk-iewicz. We take a risk in wishing that readers will find this Special Section interesting, as it details the revolutionary changes that have occurred in the field of building materials technology during the last seventy years. Scientists and workers at the Building Research Institute ITB take great pride in their work toward a greener built environment and in the advancement of sustainable building practices.

REFERENCES

[1] "Special Section on Civil Engineering" in Bull. Pol. Ac.: Tech. 61 (1), 3–4 (2013) by L. Czarnecki

ISSN2321-2152 www.ijmece .com

Vol 8, Issuse.3Aug 2020

W. Radomski. and 2. "Special Section on Diag-nostics and Durability Estimation of Civil Structures" by L. Czarnecki and W. Trampczyński, published in Bull. Pol. Ac.: Tech. 63 (1),3-5. (2015). "Scientific basis and rules of thumb in civil engineering: Conflict or harmony?" (Pol. Ac.: Tech. 64 (4), 665–673 (2016), written by L. Czarnecki and D. Van Gemert. The study difficulty of evaluating the performance of building goods was highlighted by E. Szewczak and A. Piekarczuk in their publication [4]. "Little mistake-large impact on evaluation?", Bull. Pol. Ac.: Tech. 64 (4), 675-686 (2016)."An approach to in-situ compressive strength of concrete" was published in 2016 by L. Brunarski and M. Dohojda in the Bulletin of the Polish Academy of Sciences, volume 64, issue 4, pages 687-695.

[6] In Bull. Pol. Ac.: Tech. 64 (4), 697–707 (2016), R. Geryło discusses energy-related circumstances and envelope features in relation to sustainable buildings.

[7] "Colossality of construction materials in relation to fire protection" by J. Fangrat. Public Administration Bulletin 64(4), 709-717 (2016). The article "The philosophy of fire safety engineering in the shaping of civil engineering development" was written by W. Wegrzyński and P. Sulik in 2016. It can be found in Bull. Pol. Ac.: 719–730. 64 Tech. (4),In their 2016 study, J. Wawrzeńczyk, T. Juszczak, and A. Molendowska examined the effect of varying quantities of ground granulated blast furnace slag on the frost durability of concrete. The results were published in the Bull. Pol. Ac.: Tech. 64 (4),731–737. [10] In their 2016 publication "Dynamic stability of moderately thick beams and frames with the use of harmonic balance and perturbation methods," P. Obara and W. Gilewski discuss the dynamic stability these structures. of [11] In Bull. Pol. Ac.: Tech. 64 (4), 751-762 (2016), M. Kadela presents a model of a pavement construction with various layers of sub-soil. "The use of gabbro dust in the cold recycling of asphalt paving mixes with foamed bitumen" was published in 2016 by M. Iwański, P. Buczyński, and G. Mazurek in the Bulletin of the Polish Academy



ISSN2321-2152 www.ijmece .com

Vol 8, Issuse.3Aug 2020

of Sciences, volume 64, issue 4, pages 763–773. [13] In Bull. Pol. Ac.: Tech. 64 (4), 775–783 (2016), T. Tracz writes on the gas permeability and open porosity of cement pastes. [14] "Chemical interaction between polymer and cement in polymer-cement concrete" (Bul. Pol. Ac.: Tech. 64 (4), 785–792) was published in 2016 by