The journal **IGRA USTVARJALNOSTI (IU)** – teorija in praksa urejanja prostora / **CREATIVITY GAME** (CG) – Theory and Practice of Spatial Planning (University of Ljubljana, Faculty of architecture and Faculty of of Civil and Geodetic Engineering) invites you to prepare and submit an article proposal for its special issue of 2017 (*Volume No. 5*) titled:

"NATURAL AND BUILT ENVIRONMENT-Role of ecological indicators"

IGRA USTVARJALNOSTI(IU) – teorija in praksa urejanja prostora / CREATIVITY GAME (CG) – Theory and Practice of Spatial Planning http://iu-cg.org/en/index.html

Accessibility of Journal

The journal is freely available online at journal's website: <u>www.iu-cg.org</u>, and with DOI link: <u>10.15292/IU-CG</u>. All articles are open-accessed and freely available under <u>Creative Commons Attribution-</u>

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Periodicity of Journal

One issue per year as an e-journal.

Databases

The journal is indexed and abstracted is in the following bibliographic databases: COBISS - Co-operative Online Bibliographic System and Services ICONDA - International Construction Database DOAJ – the DIRECTORY OF OPEN ACCESS JOURNALS. ERIH PLUS – The European Reference Index for the Humanities and the Social Sciences

ISSN

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Aims & Scope

The idea behind the founding of the journal IGRA USTVARJALNOSTI (IU) – teorija in praksa urejanja prostora / CREATIVITY GAME (CG) – Theory and Practice of Spatial Planning emerged from a successful scientific monograph with the same title Creativity Game. In 2013, the first issue of the journal will be published jointly by the Faculty of Architecture and the Faculty of Civil and Geodetic Engineering, both of the University of Ljubljana. The journal shall publish peer-reviewed scientific articles, book reviews, presentations of research and professional projects, workshop presentations, presentations of scientific and professional meetings, presentations of professional visits, scientific conferences and similar. The review procedure shall be applied to submissions in the Slovenian and English languages, which shall be based on theoretical and practical experience from the areas of architecture, civil engineering, urban design and planning, spatial planning, landscape architecture, sociology and from other areas of social and technical sciences relevant to these subject matters. It shall present the results of professional work, teaching and scientific research that, through the use of creativity and abstract thinking, form a continuous flow of experiential learning about spatial values and the processes within. The journal shall be published once a year (in October). In the selection of the manuscripts for publications, the editors shall place emphasis on originality and currency related to the trends in the research community.

Special Issue 2017

"NATURAL AND BUILT ENVIRONMENT-Role of ecological indicators"

Research Fields

Architecture – Urban Planning – Urban Design – Urban Sociology – Urban Ecology - Environmental impact - Environment – Engineering

Themes

With the aim of assessing the environmental impact of products or services, different methods are used in the construction industry, with different indicators. The basis is a defined perspective framework within which the inputs and outputs are quantified. Depending on the method, one or more indicators are displayed. The sustainability certification systems for buildings (especially BNB, DGNB) and environmental product declarations (EPDs) promoted the dissemination of ecological characteristics in construction. However, in many cases, it remains the case when the resources and emissions associated with the product are identified. An examination in the early planning phase is also complex and the actual potential of these methods - reduction of environmental influence by the construction industry - remains under its possibilities.

Manuscript Submission

The deadline for submitting articles is **26th of April**. Article proposals should be sent to the editor of the special issue:

Dr. Linda Hildebrand, jun. Prof., Ihildebrand@rb.arch.rwth-aachen.de

Editors of the Special Issue

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Description

"The complexity of urban areas results from their spatial heterogeneity, their intertwined material and energy fluxes, and the integration of social and natural processes. All of these features can be altered by intentional planning and design. The complex, integrated suite of urban structures and processes together affect the adaptive resilience of urban systems, but also presupposes that planners can intervene in positive ways".¹ (Pickett, S.T.A. et. Al. (Eds.), 2013)

The interaction between the natural environment and the anthropogenic impact has undergone diverse development. While the impact on nature has significantly increased during the industrialisation, the awareness of its consequences only grew in the last 50 years. In the last 30 years the building sector learnt about its contribution due to the immense emissions and resources linked to it.

As an immediate effect to the oil crisis, the topic of energy efficiency shaped the building construction, especially the typology of facades and windows. The need to preserve heat within the building added another layer and insulation became a new mass product for building envelopes. Now the building sector is looking at 2020s nearly zero energy standard. Architects and planner design buildings which need no not-renewable energy for operation and are free of emissions. Being able to tackle this, the attention was drawn to the field of resources. If a building needs zero (not-renewable) energy for operation, its ecological quality is defined by the building substance. Embodied energy/emissions have shown to be a sufficient instrument to communicate the amount of energy that buildings (neighbourhoods and cities) store. The three strategies Sufficiency, efficiency and consistency (Heger et al., $2007)^2$ used within the attempt to decrease energy for operation are common paths to control the impact linked to the building substance. Resource efficiency was proclaimed a follow-up to energy efficiency. ("The earth is energy-open system, but limited in its resources." Z. Kahn, 2011) Using less resources and more renewable ones seem not to solve the future needs as still a great amount of products end without function as waste. The concept of circular economy addresses this by proclaiming endless use divided in technical and biological cycles based on the Cradle to Cradle principles (Braungart et al., 2002)³. This approach includes in the economic sector and encourages the shift from owning products to using services. This integrates well in the increasingly more visible idea of sharing on the background of growing information management systems.

¹ Pickett, S.T.A. et.al. (Eds.), (2013). Resilience in Ecology and Urban Design: Linking Theory and Practice for Sustainable Cities. Series: Future City, Vol. 3. Springer.

² Hegger, M., Fuchs, M., Stark, & Zeumer, M. (2007). Energy Manual. Munich: Birkhäuser Architektur.

³ Braungart, M., & Mc Donough, W. (2002). Cradle to Cradle: Remaking the Way We Make Things. New York: North Point Press.

In the last 30 years the building industry came up with a broad variety of ecological indicators with different national emphasis. This issue addresses the methods to quantify ecological impact, its application in built examples and their vision.

The special issue of *NATURAL AND BUILT ENVIRONMENT- Role of ecological indicators encourages* contributions that:

- · Discuss resource use in the built environment
- · Instruments and methods to indicate the impact/benefits for the environment from resources
- Reuse and recycling application
- · Information management systems to support circularity in the built environment
- · Deconstruction techniques that contribute to higher ecological value of material
- · Research impact on the air and water use by adopted and future building technologies and design,
- · Environmental impacts assessment on construction sites,
- · Offers insight on building lifespan and the relationship between building age and their environmental impact,
- · Explores green building technologies and building design,
- Researches topics on sustainability and resilience in urban design; practice and theory / on-site experience and design theory
- · Adaptation of buildings to climate change scenario
- · Concepts and platforms for building material (primary or used) to benefit natural resources

All submitted papers must be clearly written in excellent English and contain only original work, which has not been published by or is currently under review for any other journal or conference. Original papers, review papers, case studies, and research reports are encouraged. Submitted papers can be in the form of research works and practices, they can be the result of theoretical or applied research where the principles of Systems Thinking are applied to ensure trans-disciplinary and multi-scalar results.

Date of Submission for Publication of the Entire Issue

All contributions will be rigorously peer-reviewed according to the guidelines and standards of the **IGRA USTVARJALNOSTI(IU)** – teorija in praksa urejanja prostora / **CREATIVITY GAME** (CG) – Theory and Practice of Spatial Planning. Further information, including submission procedures and advice on formatting and preparing your manuscript, can be found at: <u>http://iu-cg.org/en/index.html</u>

Manuscripts are due on **26th April 2017** but early electronic submissions are encouraged. The Publication of the Special Issue is expected to be published in <u>October 2017</u>.

Notice about manuscript submission / not necessary, but recommended: until 1st March 2017. Submission of manuscripts by authors: 26th April 2017. Peer-review Completion: May 2017. Revision/Revised submission by authors: end of 1th June 2017. Submission of finally approved articles to the editorial office: 15th June 2017.

See details on submissons:

http://www.iu-cg.org/en/authors.html

You are welcome to submit also other material:

RESEARCH AND PROFESSIONAL PROJECTS; COMPETITIONS; WORKSHOPS; CONFERENCES AND OTHER CURRENT SCIENTIFIC AND PROFESSIONAL EVENTS; GRADUATE AND POST-GRADUATE THESES (see examples issue <u>No. 2/2014</u>).

INSTRUCTIONS FOR AUTHORS

<u>02_instructions_manuscript_IU2013.pdf</u> <u>03_manuscript_template_IU2013.doc</u>