

# II INTERNATIONAL SCIENTIFIC AND TECHNICAL CONFERENCE CRITICAL INFRASTRUCTURE OF CITIES INFRASTRUKTURA KRYTYCZNA MIAST



October 6 – 8, 2021 Nowy Sącz – Rytyro - Hotel Perła Południa – Beskid Sądecki, Poland

## SAFETY OF MUNICIPAL INFRASTRUCTURE FUNCTIONING

◆ SMART CITIES ◆ WATERWORKS ◆ SEWAGE ◆ GAS ◆ ENERGETICS ◆ AUTOMATION ◆ ICT ◆

### INVITATION

## ANNOUNCEMENT NO. 3

Announcement date: **July 20, 2021**

### CHANGE OF APPLICATION DEADLINES

#### Conference Organizer



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M.Sc. Eng. Jarosław SZAROTA	<b>Secretary</b>

### **Members**

M.A. Małgorzata CYGNAROWICZ  
Eng. Dariusz KOSAKOWSKI  
M.Sc. Eng. Sławomir ZARYCZNY

## I. The purpose and the scope of the conference

The purpose of the second edition of the conference is to exchange knowledge and experience in ensuring the security of critical infrastructure, enabling the presentation of research results and the latest scientific achievements as well as innovative technical and technological solutions in the field of broadly understood issues related to management, operation and safety of municipal critical infrastructure including systems: waterworks, sewerage, gas, energetics, automation and ICT as well as broadly understood issues of Smart Cities in an international perspective.

The second edition of the conference is a continuation of the presentation of modern technical, legal, economic, design, research and operational problems, while being a forum for the exchange of knowledge and experience, it allows the presentation of research results and the latest scientific achievements as well as innovative technical and technological solutions. At individual sessions of the conference, there will be discussion of issues that share a common goal regarding the role and importance of the functioning of dispersed, complex critical infrastructure securing the vital interests of the economy of the country and its inhabitants. The discussed issues will allow to identify many problems and threats related to critical infrastructure in the aspects of ensuring broadly understood security implemented by the structures of the crisis management system at particular administrative levels. The interdisciplinary nature of the exchange of views and experiences has a positive dimension and invaluable value, enables the discussion of many key problems, and also constitutes a method of mutual education for many environments, from institutions managing and administering critical infrastructure, through scientific, planning, design and implementation environments, ending with control institutions and central and local government structures of the crisis management system.

## II. The conference topics

- Intelligent municipal infrastructure of modern agglomerations
- Cybersecurity of municipal infrastructure
- Effectiveness of security management in a dispersed complex municipal infrastructure
- Inter-branch connections and dependences of municipal infrastructure systems
- Exploitation of municipal infrastructure systems in normal conditions and crisis situations
- Failure of municipal infrastructure systems in the aspect of functional safety
- Management of urban infrastructure as an element of critical infrastructure
- Infrastructure of cities as an area of potential terrorist impact
- Critical points in the security of critical infrastructure functioning
- Risk estimation and the concept of municipal infrastructure immunization
- Asymmetrical threats to the functioning of municipal infrastructure
- Safety of collective water intake and distribution systems
- Legal and economic conditions for the protection of municipal technical infrastructure
- Technology and materials, and the safety of municipal infrastructure functioning.

## III. Important dates

<b>July 30, 2021 by 10.00 a.m.</b>	<b>sending article abstracts</b> (Polish and English) along with the electronic address and telephone number for correspondence to the following e-mail address: <a href="mailto:ikm@swns.pl">ikm@swns.pl</a> <b>ATTENTION!</b> The topics of the presentations submitted so far (in accordance with the original schedule) were accepted and included in the framework program of the conference. Speakers are asked to complete the formalities regarding the application of participation (sending the application form and paying the conference fee).
<b>August 09, 2021</b>	information by e-mail to authors about the acceptance of article proposals and directing them to individual sessions (presentation, poster) and initial recommendation to journals (successively).
<b>August 09, 2021</b>	<b>publication of announcement no. 4</b> with the conference framework program.
<b>August 16, 2021 by 10.00 a.m.</b>	<b>1st deadline for sending applications</b> for participation in the conference to the following e-mail address: <a href="mailto:ikm@swns.pl">ikm@swns.pl</a> along with the payment of the conference fee.
<b>August 31, 2021 by 10.00 a.m.</b>	<b>sending full texts of articles</b> to the following e-mail address: <a href="mailto:ikm@swns.pl">ikm@swns.pl</a> in order to issue recommendations to individual journals. <b>ATTENTION!</b> The full texts of articles sent so far will be submitted for evaluation by the Scientific and Program Council after receiving all articles for final recommendation to a given journal.
<b>September 15, 2021</b>	<b>publication of announcement no. 5</b> with the conference program.
<b>September 20, 2021 by 10.00 a.m.</b>	<b>2nd deadline for sending applications</b> for participation in the conference to the following e-mail address: <a href="mailto:ikm@swns.pl">ikm@swns.pl</a> along with the payment of the conference fee.
<b>September 21, 2021</b>	information by e-mail to authors about the proposals of the Scientific and Program Council regarding the recommendations of publications to individual journals (successively). Then, authors of the articles register to the Editorial Board of the publishing house on the basis of the recommendation received from the Scientific and Program Council of the conference and, in agreement with the Editorial Board, implement the article publication process.
<b>October 6-8, 2021</b>	<b>conference deliberations</b> (hybrid or on-line)

## IV. Financial and organizational-order matters

### 1. Applications of participation

- a completed and signed form in PDF format sent to the following address: [ikm@swns.pl](mailto:ikm@swns.pl). Download form on the website <http://www.infrastrukturakrytyczna.com.pl>.
- on the basis of the confirmation of application sent to the provided email address, **participants pay the fee directly to the bank account of Sądeckie Wodociągi Spółka z o.o. w Nowym Sączu, ul. Wincentego Pola 22, 33-300 Nowy Sącz, no.: 80 1130 1150 0031 5009 3520 0008** – with the designation in the title of the transfer: "name and last name – CIC-2021".
- The payment constitutes the final confirmation of participation. The invoices are issued by Spółka z o.o. Sądeckie Wodociągi w Nowym Sączu, ul. Wincentego Pola 22, 33-300 Nowy Sącz, and are sent by mail.
- In the case of a written notification to the Organizing Committee of resignation from the conference before September 15, 2021, the costs will be reimbursed minus a handling fee of 10%. Reimbursement does not apply to cancellations after September 15, 2021.
- The applicant may change the person being registered, provided that it is in writing, with this information being sent at the latest by 12:00 on October 4, 2021.
- The place of accommodation depends on the order of applications and will be made successively, according to the available rooms.
- Participation in the conference depends on the order of applications.

### 2. Cost of participation in the conference

Due to the still prevailing coronavirus pandemic and the uncertain epidemic situation in the fall, the organizer assume the organization of the event in a hybrid form (stationary and on-line participation to choose from):

#### 2.1. Cost of stationary participation:

Fees for participation in the conference upon registration by:	August 16, 2021	September 20, 2021
Full payment of the participant [PLN net]	PLN 1 600.00	PLN 1 800.00
Payment for a doctoral student, student [PLN net]	PLN 1 350.00	PLN 1 550.00

The above fee for participation in the conference is the net value and will be increased by the due VAT (23%) and includes:

1. accommodation in double rooms with private bathroom + Wi-Fi + parking (**single room - additional payment PLN 250.00 + 23% VAT**);
2. access to the indoor swimming pool supplied with spring water (25m x 12.5m) – swimming cap required, access to the sauna, gym and fitness center as well as walking areas during conference days;
3. participation in the conference proceedings (all sessions), conference materials, advertising materials, industry magazines, a notebook and a pen, a gift;
4. coffee breaks (coffee, tea, drinks, refreshments) in the intervals between sessions with simultaneous access to the terrace and walking areas;
5. an Occasional Certificate (separately for active participants and listeners);
6. a dinner on October 06 and 07, 2021;
7. a breakfast on October 07 and 08, 2021;
8. a ceremonial supper in "Karczma nad Potokiem";
9. a ceremonial banquet supper;
10. technical workshops.

\*participation does not include the cost of using the lobby bar and hotel cafe

The organizer informs that the availability of above-mentioned attractions (swimming pool, gym, fitness, integration, etc.) depends on the applicable sanitary requirements and the possibility of changing them for reasons beyond the control of the organizer. We would like to emphasize the necessity to comply with the sanitary requirements in the facility and the surrounding area during the conference.

#### 2.2. Cost of on-line participation:

Fees for participation in the conference upon registration by:	August 16, 2021	September 20, 2021
Full payment of the participant [PLN net]	PLN 350.00	PLN 400.00
Payment for a doctoral student, student [PLN net]	PLN 100.00	PLN 200.00

The above fee for participation in the conference is the net value and will be increased by the due VAT (23%) and includes:

1. participation in the conference proceedings (all sessions).
2. conference materials (book of abstracts) – in electronic version.
3. an Occasional Certificate (separately for active participants and listeners) – in electronic version.

**Because of the unknown situation related to the SARS-CoV2 coronavirus pandemic and the related possibility of introducing various restrictions and requirements related to participation in conferences, at the time of publishing this announcement the organizer reserves the right to change the form of the conference to an on-line mode, as well as the right to introduce organizational changes of the conference, related to the need to adapt to any administrative requirements and ensure the safety of participants. The organizer points out that due to the inability to predict the development of the situation related to the SARS-CoV2 coronavirus pandemic, the**

changes referred above, may be introduced several times, including immediately before the conference. The final form of organizing the event depends on restrictions and limits applicable at that time, resulting from the epidemic situation.

The organizer informs, that the conference proceedings will be recorded (video and sound) – it applies to on-line mode as well.

## V. Information for authors of speeches

1. During the conference articles will be presented in the form of:
  - presentation - paper (up to 15 minutes)
  - e-poster presentation (up to 2 minutes) 1-4 slides (goal-method-results-conclusions).
2. The language of the conference is Polish and English.

## VI. Other forms of presentation

Regardless of scientific and technical paper presentations, it is planned to promote technologies, devices, products and software related to the subject of the conference and a technical exhibition. Detailed information on the possibility of purchasing a company promotional package can be found in the "Application Form – Company Promotional Package" (the form will be posted on the website: <http://www.infrastrukturakrytyczna.com.pl>).

## VII. Information for authors of articles

### **1. Requirements for articles abstracts**

- Text volume up to 200 words (do not use drawings, diagrams and tables)
- Title: Times New Roman font, 14 points, bold
- Text: Times New Roman font, 11 points
- The total volume of the abstract in two language versions must be on 1 page A4
- Authors prepare abstract of the article according to the template on the webpage: <http://www.infrastrukturakrytyczna.com.pl> (editorial template in a text editor) – *ABSTRACT template.doc file*.
- Abstract must be sent **by 10:00 a.m. on July 30, 2021** in Word format (\*.doc.) to the e-mail address: [ikm@swns.pl](mailto:ikm@swns.pl) along with the "name and last name of the author - Abstract CIC-2021" in the title of the message, and:
  - proposal to submit an article presentation in the form of: a paper or e-poster,
  - electronic address for correspondence and telephone number.

The organizer reserves the right to choose submitted articles specifying the time and manner of their presentation during the conference - the Scientific and Program Council will select accepted abstracts for individual sessions (paper, e-poster).

Abstracts of accepted presentations and e-posters (in Polish and English) will be published in the Occasional Conference Publication (with ISBN number) and given to participants during the conference.

### **2. Requirements for full texts of articles**

- The volume of the paper cannot exceed 8 pages of A4 format
- Title: Times New Roman font, 14 points, bold
- Text: Times New Roman font, 11 points
- The paper should contain names and last names of authors, affiliations and e-mail addresses of authors and a note at the end on the manuscript: "*Work presented at the 2nd International Scientific and Technical Conference Critical Infrastructure of Cities 6-8.10.2021, Rytro, Poland*".

### **3. Possibility to publish full texts of articles**

After the conference selected articles may be published in journals from among:

- "**Desalination and Water Treatment**" (100 points – item No. 4958 of the Annex to the Regulation of the Ministry of Science and Higher Education), <https://www.deswater.com>, publications in English.
- "**Architecture – Civil Engineering – Environment [ACEE]**" (since 2015, the journal entered into the Web of Science Core Collection (Emerging Sources Citation Index); 20 points – item No. 1610 of the Annex to the Regulation of the Ministry of Science and Higher Education), <http://www.acee-journal.pl/>, publications in English.
- "**Instal**" (20 points - item No. 200150 of the Annex to the Regulation of the Ministry of Science and Higher Education), publications in Polish.

The articles will be recommended by the Scientific and Program Council and the Editorial Boards of each of the above-mentioned publishers. Then, authors will be asked to prepare a publication in accordance with the editorial requirements of individual publishers and to submit the manuscript to a given journal (requirements on the pages of individual publishers). The full texts of the papers will be published after receiving positive reviews in accordance with the requirements of the journal.

## VIII. Training workshops

1. As part of the conference, the organizer provides the opportunity to participate in training workshops for wanting participants. In order to participate in the workshops, willing people are asked to fill in the appropriate fields in the conference application form (available at <http://www.infrastrukturakrytyczna.com.pl>). The number of places is limited (the order of applications decides) - we encourage you to take advantage of free workshops (the conference fee covers the cost of participation in the workshops).

The workshops are available for people planning a stationary participation in the conference. If the organization of the conference is changed to on-line form only, the workshops will also be conducted in this form.

2. The planned training workshops (optional, possibility to participate in all workshop panels):

**2.1. "Security of critical infrastructure in communal systems controlling technological processes".**

Organizer: **ASTOR, Kraków**

Thematic scope:

As part of workshops, there will be a demonstration of exemplary systems controlling technological processes using:

- high availability systems,
- redundancy (duplication of key elements),
- hot reservations,
- shock-free switching between systems in the event of a failure.

Issues related to cybersecurity of control systems (PLCs, operator panels, etc.) will be discussed in terms of possible changes and interference by unauthorized people.

Form: presentation

Estimated duration: about 2 hours

Estimated number of participants: about 30 people

**2.2. "Field data acquisition, analysis and trend study based on spatial data"**

Organizer: **Esri Polska Sp. z o.o.**

Thematic scope:

During the meeting, the process of collecting data in the field will be presented. Participants will learn how to independently prepare and configure a tool to conduct and coordinate the work of field teams. The process begins with the preparation of initial data, a properly configured web map and designing a work schedule. Then users will learn how to make the tool available to people in the field, so that the acquired data is available in real time.

In the second part of the meeting, a tool enabling analyzes based on statistical tools and functions will be presented, which, thanks to visualization with a spatial context, allow for a more conscious decision-making process and help to take quick and rational actions in a crisis situation based on data collected in one place.

Form: workshops during which participants will be able to recreate the activities presented by the trainer

Estimated duration: about 2 hours

Estimated number of participants: optimally 10, max 12

**2.3. "Using Model-Based Systems Engineering (MBSE) to deal with common cybersecurity challenges in the design of build in control systems"**

Organizer: **Oprogramowanie Naukowo-Techniczne sp. z o.o. sp. k., Kraków**

Thematic scope:

In the modern world where "everything is connected" cybersecurity has quickly become a basic business requirement and even if we do not personally see cyber attacks on a daily basis, we may suffer from them indirectly when the target of attack, is for example, a critical element of the infrastructure, and the result of the action will be its failure or shutdown.

One way to soften the impact of these attacks is to ensure that infrastructure-responsible firmware and cyber-physical components of the system are designed to be resistant to external attack vectors. In this lecture, we present how to use Model-Based Design (MBD) methodology to achieve the appropriate level of security at all stages of the system life cycle.

Topics:

- similarities and differences between security and protection
- safety standards and their impact on the functional quality of infrastructure
- benefits of model-based engineering in terms of risk identification and assessment
- examples of using the Model-Based Design (MBD / MBSE) methodology to implement safer systems and maintain them after production

Form: presentation

Estimated duration: about 2 hours

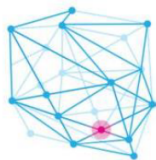
Estimated number of participants: about 30 people

**3. Workshop participants will receive a separate personal certificate of workshop completion.**

4. The date and place of workshops: Hotel Perła Południa, Rytró, on days of the conference (the detailed schedule of workshops will be included in the conference program and presented in next Announcement).

## **IX. GDPR**

Information regarding the processing of personal data in connection with organization of the conference by the Sądckie Wodociągi Spółka z o.o. can be found on the website: CRITICAL INFRASTRUCTURE OF CITIES at <http://www.infrastrukturakrytyczna.com.pl>



# II MIĘDZYNARODOWA KONFERENCJA NAUKOWO-TECHNICZNA INFRASTRUKTURA KRYTYCZNA MIAST CRITICAL INFRASTRUCTURE OF CITIES

6 – 8 października 2021r. Nowy Sącz – Rytro - Hotel Perła Południa – Beskid Sądecki



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## Conference Office

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