

# THIRD ANNOUNCEMENT

Call for Papers

# QIRT 2024

17<sup>th</sup> Quantitative InfraRed Thermography Conference



Zagreb, Croatia, 1 - 5 July 2024

Local Programme Organiser:



University of Zagreb  
Faculty of Mechanical Engineering  
and Naval Architecture  
Zagreb, Croatia

Conference Secretariat:



Energetika marketing d.o.o.  
HESO  
Zagreb, Croatia

Scientific Partnerships:

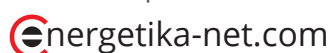


Media Coverage:

technical magazine



portal



## **Aims and Contents**

We cordially invite all experts, users, scientists, young researchers and students being active or interested in the field of quantitative thermography to attend the **17th Quantitative Infrared Thermography Conference (QIRT'2024)**. The Conference will take place in **Zagreb**, at **the International Hotel**, close to historical centres and public transportation systems, on **1 - 5 July 2024**.

The Conference will be complemented by QIRT Short Courses, by an exhibition where the newest infrared thermography equipment will be presented and by a social program.

We are looking forward to receive your interesting and innovative proposals for presentations and/or posters and/or discussions, that will contribute to scientific and technical knowledge.

On behalf of the Local Organizing Committee  
prof. dr. sc. Srećko Švaić

## **Scope**

The biannual Quantitative Infrared Thermography Conference (QIRT) is a meeting of the scientific and industrial community interested and actively working in research, application and technology related to infrared thermography.

All Conference topics are intended to quantitative results comprising temperature values as well as further parameters on the tested materials and structures. The latter ones are usually obtained through active thermography, e.g. by exploiting nonstationary heat transfer processes activated by additional heat sources or by considering wavelength dependent effects.

Passive and active thermography methods and technologies are spread now along a multitude of areas of applications, which all profit from each other.

## **Topics**

- State-of-the-art and evolution in the field of infrared scanners and imaging systems allowing quantitative measurements, and related data acquisition and processing systems.
- Calibration and characterisation of infrared cameras and related topics like certification, standardisation, validation, emissivity determination, absorption in media, translucent media, spurious radiations, three dimensionality of observed objects.
- Characterisation of optical and further heat sources for active thermography.
- Analytical and numerical modeling, data reduction, signal and image processing, artificial intelligence related to infrared thermography.
- Application of infrared thermography to radiometry, thermometry, and physical parameters identification and quantification, in all fields: fluid mechanics, solid mechanics, structures and material sciences, nondestructive evaluations, electromagnetism, medicine and biomedical sciences, remote sensing, environment monitoring, industrial processes, multiscale, multispectral and other.

## **Exhibition**

A vendor exhibition will complement the technical presentations.

For each exhibition booth one Conference ticket with full Conference participation will be provided.

The number of exhibition booths is limited. They will be assigned on a first come, first serve basis.

More information and prices will be published in the next Announcement.

## **Key Dates for authors**

**Deadline for abstract submission: ..... 7 January 2024**

Acceptance notification: ..... February 2024

Deadline for exhibition booth reservation: ..... 15 May 2024

Deadline for full paper submission: ..... 31 May 2024

Deadline for author on-line registration : ..... 14 June 2024

### Submission Guidelines

You are invited to submit abstracts in accordance with the following guidelines:

- Authors may register more than one paper.
- English is the Conference language so the contributions must be submitted in English. Translation into other languages will not be provided.
- **All contributions** must be submitted online at: [qirt2024.org](http://qirt2024.org) by **7 January 2024**.

Please submit **a short abstract of maximum two pages** and formatted according to the template which can be found on the Conference website.

Authors will be informed about the acceptance of their contributions by February 2024.

Authors whose paper was accepted must **register and pay** the registration fee before **14 June 2024**.

The registration is binding.

Registrations of papers will only be considered if they are submitted together with all relevant data and the abstract.

**The full paper** (in English) must be received by QIRT'2024 organizers as an electronic file by **31 May 2024**.

### Schedule of Topics

Please, indicate the topic for the application of a scientific paper, according to the following list of topics:

#### Session 1

- 1-A** State-of-the-art and evolution in the field of infrared scanners and imaging systems allowing quantitative measurements.
- 1-B** Data acquisition and processing systems associated with infrared scanners and imaging systems.

#### Session 2

- 2-A** Calibration and characterisation of infrared cameras and related topics like certification, standardisation, validation, emissivity determination, absorption in media, translucent media, spurious radiations, three dimensionality of observed objects.

#### Session 3

- 3-A** Characterisation of optical and further heat sources for active thermography.

#### Session 4

- 4-A** Analytical and numerical modeling, data reduction, signal and image processing.
- 4-B** Artificial intelligence related to infrared thermography.

#### Session 5

Application of infrared thermography to radiometry, thermometry, and physical parameters identification and quantification, in all fields:

- 5-A** fluid mechanics,
- 5-B** solid mechanics, structures and material sciences,
- 5-C** nondestructive evaluations,
- 5-D** electromagnetism,
- 5-E** medicine and biomedical sciences,
- 5-F** remote sensing, environment monitoring, industrial processes, multiscale, multispectral and other.

### Publication of Best Papers

After the Conference, all papers will be evaluated by the QIRT Committees and the best papers will be published in the **QIRT Journal**. These papers should not already be published in any conference proceedings or journals and the work should be original and new. A peer review process by independent, anonymous expert referees will be performed.

### Student Award

The **best student paper** will be honoured with the Student Award. During abstract submission you can choose if your abstract is suitable for the Student Award.

The presenting student must be enrolled at a university (or similar institution, e.g. polytechnic) and the presented work must be developed within their bachelor, master or doctoral thesis. Only one submission per student candidate is accepted into the competition.

### Grinzato Award

The scientific paper will be honoured by the **Grinzato Award**. The nominees for the Grinzato Award will be announced by the steering Committee according to the rating of the submitted abstracts.

### QIRT Short Courses

In addition to the Main Technical Program, the Conference will be complemented by **one-day Short Courses** on **Monday, 1 July 2024**, taking place in the Conference Center at the International Hotel or at the Faculty of Mechanical Engineering and Naval Architecture of the University of Zagreb, that is very close to the Hotel.

### Hotel Reservation

We will arrange special conditions in different hotels. Information and booking informations will be put at the Conference website on time.

### Venue

**THE INTERNATIONAL HOTEL**, Miramarska cesta 24, 10 000 Zagreb, Croatia

The International Hotel is a 4-star hotel situated in a prime location in the centre of Zagreb.

The International Hotel is an ideal place to organize events such as meetings, seminars, conferences as well as banquets. All conference facilities have daylight, built in airconditioning and the most modern technical equipment.

Hotel features 6 flexible and functional meeting rooms, modern AV equipment, courteous and professional staff and has famous gourmet breaks during all sorts of business events.



### Committees

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Junko Morikawa, Japan  
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#### Local Organizing Committee

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Anica Trp, RITEH  
Zvonimir Zore, KBCSM

### Website

The [qirt2024.org](http://qirt2024.org) website has been prepared for the Conference. All news and updates will appear thereon.

### Local Organisation

#### Local Programme Organiser

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