# QIRT-ASIA-2023 Schedule

Generated on: Sep-16

## Day 1 (Monday, Oct-30)

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|---|---|
| 09:00 - 09:30 | **Registration & Coffee** |
| 09:30 - 11:30 | **Tutorial I** |
| | Short Course in Infrared Thermography: Part A |
| 11:30 - 13:30 | **Tutorial II** |
| | Short Course in Infrared Thermography: Part B |
| 13:30 - 15:00 | **Lunch** |
| 15:00 - 17:00 | **Tutorial III** |
| | MPP Aero Industrial Solutions |
| 17:00 - 21:00 | **Free Time** |

# Day 2 (Tuesday, Oct-31)

09:00 - 10:30 **Registration & Coffee**

10:30 - 11:00 **Opening Session**

11:00 - 12:00 **Keynote by Prof.Dr. Junyan Liu**

Photothermal Detection Methods and Their Applications

12:00 - 13:30 **Lunch**

13:30 - 15:00 **Parallel Sessions**

THERMOGRAPHY APPLICATIONS

- *Peng Song, Junyan Liu, Fei Wang, Yunji Xie*
  Inspection of thin film resistance strain gauge contact failure using electrical excitation thermal-wave imaging (paper 1)
- *Xavier Maldague, Pengfei Zhu, Ziang Wei, Zahra Omidi, Geoffrey Marchais, Thibault Boulanger, Pierre Servais*
  Automated Defect Detection for Epoxy-Carbon Prepreg Laminates in Data Fusion Approach (paper 4)
- *Murat Muratov, Irina Znamenskaya, Elizaveta Karnozova and Alexander Lutsky*
  Thermographic visualization of non-stationary high speed flow in a channel (paper 14)

IRNDT CRACKS DETECTION

- *David Sagarduy-Marcos, Arantza Mendioroz and Javier Rodriguez-Aseguinolaza*
  Dimensionless numerical sensitivity analysis of narrow cracks by means of infrared lock-in thermography (paper 11)
- *Aleksei Vshivkov, Anastasia Iziumova, Elena Gachegova and Oleg Plekhov*
  Temperature evolution at fatigue crack tip area after laser shock peening (paper 13)

15:00 - 21:00 **Conference Dinner and Social Event**

# Day 3 (Wednesday, Nov-01)

09:00 - 09:30 **Coffee**

09:30 - 11:00 **Parallel Sessions**

THEMAL IMAGERY FOR MEDICAL APPLICATIONS 1

- *Nithya Rajagopalan, Nirmala K, Vahini M, Nisha S and Rakshitha S*
  Diagnostic Tool for Diabetic Retinopathy using Thermal Eye Images (paper 18)
- *Masahito Takano, Kent Nagumo and Akio Nozawa*
  Modification Method for Facial Skin Temperature Image Considering Facial Artery Structure (paper 25)

REMOTE THERMAL IMAGERY

- *Rafik Ghali, Moulay Akhloufi*
  DC-Fire: a Deep Convolutional Neural Network for Wildland Fire Recognition on Aerial Infrared Images (paper 5)
- *Jens-Peter Tuppatsch, Rebecca Rodeck and Gerko Wende*
  A New Concept for Permanent Geometric Reference Points: RFID Tags for Composite Aircraft Components (paper 7)
- *Zijun Wang, Naicheng Jiang, Ruizhe Wen and Bin Sun*
  The Segmentation of Wind Turbine Defect Based on UAV Infrared Image (paper 9)

11:00 - 12:00 **Keynote by Prof.Dr. Xavier Maldague**

Thermographic Drone NDT: Concepts, Case Studies

12:00 - 13:30 **Lunch**

13:30 - 15:00 **Parallel Sessions**

THERMOGRAPHY IMAGE PROCESSING TECHNIQUES

- *Arantza Mendioroz, David Sagarduy-Marcos, Jon Pérez-Arbulu, Javier Rodriguez-Aseguinolaza, Ricardo Celorrio, Jean-Christophe Batsale and Agustín Salazar*
  Sizing the geometrical parameters of semi-infinite delaminations using optically excited lock-in infrared thermography (paper 10)
- *Plinio Antonio Moraes Neto, Henrique Fernandes and Cayo Fontana*
  Using autoencoders to reduce noise from infrared thermal imaging of carbon fiber reinforced polymer plates (paper 20)
- *Hai Zhang, Zhiyang Zhang, Yuxia Duan*
  Microporous Defect Detection in Airship Envelope Materials using Laser Infrared Thermography (paper 35)

SURFACE AND NOISE CONSIDERATIONS

- *Mario De Cesare, Luigi Savino, Francesca Di Carolo, Antonio Del Vecchio, Umberto Galietti, Davide Palumbo and Stefania Cantoni*
  Novel infrared methodologies for material emissivity and temperature determination for space atmospheric re-entry (paper 17)
- *Krzysztof Dziarski and Arkadiusz Hulewicz*
  Thermographic temperature measurements of the semiconductor devices made on the basis of SiC (paper 19)
- *Anastasia Iziumova, Aleksei Vshivkov, Rustam Sabirov, Elena Gachegova and Oleg Plekhov*

Infrared thermography investigation of the mechanical and thermal properties of laser-shocked Ti64 (paper 24)

15:00 - 15:30 **break**

15:30 - 17:00 **Parallel Sessions**

IRNDT FOR COMPOSITES STRUCTURES 1

- *Waldemar Swiderski*
  Methods of improving the detection of defects in thermograms on the example of GFRP testing (paper 3)
- *Alisson Figueiredo, Giampaolo D'Alessandro, Stefano Perilli, Stefano Sfarra and Henrique Fernandes*
  Numerical and experimental analysis for flaw detection in composite structures of wind turbine blades using active infrared thermography (paper 12)
- *Sreedhar Unnikrishnakurup, Vinod Kumar, Jonathan Zheng, Carlos Manzano and Andrew Ngo*
  Exploring Ambient Influences on Infrared Thermography: A Study on Concrete Delamination Detection and Solar Loading (paper 26)

THERMOGRAPHY ACQUISITION TECHNIQUES

- *Miguel David Méndez Bohórquez, Jannik Ebert, Lars Sommerlade, Robert Schmoll and Andreas Kroll*
  Comparative Assessment of the Size-of-Source Effect in Middle and Long-Wavelength Infrared Cameras (paper 22)
- *Hajera Kouser, Stephane Boubanga Tombet, Joseph Carrock, Vincent Detalle, Thomas Calligaro, Xueshi Bai and Alexandre Semerok*
  Pulse Phase Thermography for Panel Paintings Inspection in Mid-wave and Long-wave Infrared Bands (paper 29)
- *Arsenii Chulkov and Vladimir Vavilov*
  Combining heating and forced cooling: a new technique in active thermal NDT (paper 31)

17:00 - 21:00 **Free Time**

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## Day 4 (Thursday, Nov-02)

09:00 - 09:30 **Coffee**

09:30 - 11:00 **Parallel Sessions**

THEMAL IMAGERY FOR MEDICAL APPLICATIONS 2

- *Dhanalakshmi M, Deepa Rohini T, Fowziya Begum A and Komatheswari T.*
  QUANTITATIVE ANALYSIS OF PEDAL ULCERATIONS USING THERMOGRAPHIC IMAGES (paper 32)
- *Nithya Rajagopalan, Nirmala K, Sivagami Vishnukumar, Srija Vaidyanathan and Sasi Preethi*
  Analysis of thermal images for detection of diabetic foot (paper 33)

IRNDT FOR COMPOSITES STRUCTURES 2

- *Franck Brachelet, Didier Defer, Sam Ang Keo, Barbara Szymanik and Claire Le Roy*
  Numerical modelling and experimental approach for defect detection in CFRP by microwave thermography (paper 16)
- *Sreedhar Unnikrishnakurup, Renil Thomas Kidangan, Krishnamurthy Chitti Venkita and Krishnan Balasubramaniam*
  Characterizing Fiber Orientations and Layer Stacking Sequences in CFRP Laminates through Induction Heating Patterns: A Nondestructive Approach (paper 23)

11:00 - 12:00 **Keynote by Prof.Dr. Vladimir Vavilov**

The last decade of IR thermographic NDT research at Tomsk Polytechnic University: from software to hardware

12:00 - 13:30 **Closing Reception**

13:30 - 21:00 **Free Time and Cultural Program**