

IVMSP 2022

IEEE 14th Image, Video,
and Multidimensional
Signal Processing
Workshop

26-29 June 2022
Nafplio, Greece



General Chairs

Constantine Kotropoulos, GR
Christophoros Nikou, GR

General Co-Chairs

Petros Maragos, GR
Thrasos Pappas, US
Athanasios Skodras, GR

Technical Program Chairs

Tasos Dagiuklas, UK
Eduardo A. B. da Silva, BR

Finance Chair

Maria Tzelepi, GR

Plenary Sessions Chairs

Nikos Boulgouris, UK
Amy Reibman, US

Special Sessions Chairs

Kjersti Engan, NO
Kostas Plataniotis, CA

Publicity Chairs

Dimitris Ampeliotis, GR
Karel Fliegel, CZ

Publications Chair

Vassilis Fotopoulos, GR

SPS Liaison

Tan Yap Peng, SG

IVMSP TC Liaison

Jenny Benois-Pineau, FR

Industrial Liaisons

John Apostolopoulos, US
Ioannis Katsavounidis, US
Béatrice Pesquet, FR
Christian Timmerer, AT
Anthony Vetro, US

International Liaisons

Jing Dong, CN
Alex Kot, SG
W. C. Siu, HK

Advisory Board

Mauro Barni, IT,
Kostas Berberidis, GR
Moncef Gabbouj, FI
Aggelos Katsaggelos, US
C.-C. Jay Kuo, US
Nikos Paragios, FR
Fernando Pereira, PT
Ioannis Pitas, GR
Saeed Sanei, UK
Tieniu Tan, CN

Multispectral Sensing and Surveillance Applications

SPECIAL SESSION, CALL FOR PAPERS

The 2022 IEEE 14th Image, Video, and Multidimensional Signal Processing Workshop (IVMSP 2022) will be held in June 26-29, 2022 in Nafplio, the capital of the first Hellenic Republic (Greece). It will bring together leading experts from academia and industry to share the most recent and exciting advances in image, video, and multidimensional signal processing and analysis.

Multispectral and hyperspectral sensing technologies have become essential tools for a wide range of applications such as defense and homeland security, border control, commercial, civil, environmental, and agricultural. Due to the advances in radar, audio and image sensing technologies that cover a wide range of the electromagnetic spectrum, from the ultraviolet through the longwave infrared (0.3 - 14 μm) spectral regions, a wide range of research and commercial application can be identified. Thus, sensing in combination with data capture, storage, and retrieval technologies, support a variety of surveillance applications from field, airborne, and satellite platforms. To support such applications and keep pace with new developments and applications of spectral remote sensing and surveillance systems, different computer vision as well as machine learning and deep learning algorithms and models need to be developed. The proposed Special Session will bring forward new surveillance technologies and discuss the capabilities of novel algorithms when processing data from various sensing technologies and networking platforms.

The aim of this Special Session is to host original papers and reviews on recent research advances and novel *multispectral sensing and surveillance technologies* beyond the state-of-the-art that enable organizations and authorities to protect the public, while being mindful about the privacy concerns that come with such technologies.

Welcomed submissions would be falling in the following wide range of topics:

- Multispectral imaging
- Remote sensing
- Drone surveillance
- Satellite imaging
- Military surveillance
- Threat detection
- Radar remote sensing
- Agricultural sensing
- Data collection activities and analysis
- Data and privacy laws and regulations
- Computer vision algorithms for surveillance
- Artificial intelligence algorithms for surveillance
- Machine learning and deep learning algorithms for surveillance
- Cyber surveillance

PAPER SUBMISSION

The language of the Workshop is English. Prospective authors are invited to submit full-length papers (up to 4 pages for technical content including figures, tables, references and one optional 5th page containing only references). IEEE templates for the paper format, and "no show" policy apply. Authors should indicate one or more of the above listed categories that best describe the topic of the paper. Submitted papers will be peer-reviewed by at least two experts in the field. To maximize visibility and impact as early as possible, all accepted papers will be published in IEEE Xplore through Open Preview and will be freely accessible and downloadable in final format beginning one month before the Workshop. In addition to the technical program, a social program will be offered to the participants and their companions. It will provide an opportunity to meet colleagues and friends against a backdrop of outstanding natural beauty and rich cultural heritage in one of the best-known international tourist destinations.

SPECIAL SESSION ORGANISERS

Thirimachos Bourlai, Ph.D.
School of Electrical and Computer Engineering, University of Georgia, United States
Email: Thirimachos.Bourlai@uga.edu

Panagiotis Karampelas, Ph.D.
Department of Informatics & Computers, Hellenic Air Force Academy, Greece
Email: panagiotis.karampelas@hafa.haf.gr; pkarampelas@gmail.com

IMPORTANT DATES

- Submission of full papers – March 30, 2022
- Notification of acceptance – April 27, 2022
- Author advance registration – May 11, 2022
- Camera-ready paper submission – May 11, 2022

