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Registration

Camera Ready

Deadlines

Submission

Notification

Registration

Camera

Deadlines differ for special tracks. Please consult the conference home page for special tracks Call for Papers (if any).

Past Events

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IARIA Congress 2022: Program

Onsite and Online Options: In order to accommodate a large number of situations, we are offering the option for either physical presence or virtual participation (pdf slides or pre-recorded videos).

For 2022, all events will be held in a hybrid mode with five options: on site or virtual choices (live, pre-recorded videos, voiced presentation slides, and pdf slides).

We hope for better times allowing us to return to the traditional on site scientific events. However, we are ready to adapt any which way the conditions dictate.

IARIA Congress 2022 and SocSys Congress 2022

Conference will be mixed online and on location at

Hotel Novotel Cap 3000

40 avenue du Verdan

06700 Saint Laurent du Var

+33 (0)493195555

Note: This event is a mix of online and on site participation. All contributions are posted below; those presenting onsite have their own schedule, as a subset of the entire program.

Opening Welcome

On Site Program

Keynote Speeches

K. Beyond Industry 4.0 and 5.0: Towards a Smart-Digital-Green Society

Prof. Dr. Hany Moustapha, École de Technologie Supérieure, Canada

On Site

presentation slides

video presentation

short bio

K. COVID-19 - Economic, Academic, Social, Physical, and Mental Health Impacts on University Communities

Prof. Dr. Les Sztandera, Thomas Jefferson University USA

presentation slides

video presentation

short bio

K. Information-centric Wireless Sensor Networks: A Study and a Survey

Prof. Dr. Shinaro Mori, Fukuoka University, Japan

presentation slides

video presentation

short bio

K. Scientific Computing: Is performance only what matters? Experience of running a local data center at University of Stuttgart

Dr. Alexey Cheptsov, Information Service Center of the University of Stuttgart (TIK), Germany

On Site

presentation slides

video presentation

short bio

K. Volumetric Communication across Artificial Reality Continuum. Applications in Telehealth

Prof. Dr. Krzysztof Pietroszek, Institute for Immersive Designs, Experiences, Applications, and Stories (Institute for IDAS), American University in the Film and Media Arts Division of the School of Communication, USA

On Site

presentation slides

video presentation

short bio

K. Hybridized Machine Learning Implementation for a Complex Network Cyber-Physical Supply Chain Analysis

Dr. Steve Chan, Decision Engineering Analysis Laboratory, USA

presentation slides

video presentation

short bio

K. Analyzing Deep Space Network System Performance and Lessons Learned

Timothy Pham, Jet Propulsion Laboratory, NASA, USA

On Site

presentation slides

video presentation

short bio

K. Success Stories of Mathematics in Real Life

Prof. Dr. Rob van der Mei, Centrum Wiskunde & Informatica (CW) and Vrije Universiteit Amsterdam, the Netherlands

presentation slides

video presentation

short bio

K. Multimodal Emotion Recognition Using Transfer Learning

Prof. Dr. Clement Leung, Chinese University of Hong Kong (Shenzhen), China

presentation slides

video presentation

short bio

K. An Evacuation Support System Based on Cooperative UAVs

Prof. Dr. Yasushi Kambayashi, Keio University, Japan

presentation slides

voiced slides

video presentation

short bio

K. Strain Sensors in Smart Applications of Tactile Cyber-Physical Systems: Opportunities and Recommendations

Dr. Dmitry Korzun, Adjunct Professor, Institute of Mathematics and Information Technology, Petrozavodsk State University (PhRSU), Russia

presentation slides

video presentation

short bio

K. SwipeVLock: A Supervised Unlocking Mechanism Based on Swipe Behavior on Smartphones

Wenjuan Li, Hong Kong Polytechnic University, China

presentation slides

video presentation

short bio

K. Digital Identity, Security, and Data Provenance

Prof. Dr. Stan McClellan, Texas State University, San Marcos TX, USA

presentation slides

video presentation

short bio

K. The Security in The Internet of Things: Challenges and Proposed Solutions

Assoc. Prof. Dr. Fehmi Jaafar, Quebec University at Chicoutimi, Canada

On Site

presentation slides

video presentation

short bio

K. Managing Power Infrastructure using LIDAR

Wenli Sultan, PhD, Adjunct Faculty, College of Business and Economics, California State University, USA

presentation slides

video presentation

short bio

K. Allow Knowledge to Prevail: All-scientists Sustainable Contributions to Multi-disciplinary Scientific Insight, from Prehistory to Future

St. Lect., Dr. rer. nat. Claus-Peter Rückemann, Leibniz Universität Hannover and at the Westfälische Wilhelms-Universität, Münster (WWU), Germany

presentation slides

video presentation

short bio

K. Machine Learning: An Exclusively Engineering Domain? The Role of Ethics in ML Design

Prof. Dr. Paula Esteves Cruvinel, Embraer, Brazil

presentation slides

video presentation

short bio

K. Advances in Sensors and X-ray Spectroscopy for Agricultural Soil Analyses

Prof. Dr. Paula Esteves Cruvinel, Embraer, Brazil

presentation slides

video presentation

short bio

Panel 1

Theme: IoT-based Systems Challenges

(IoT, buildings, agriculture, transportation, sensing, smart cities, embedded intelligence)

Chair: Petre Dini, IARIA, USA/EU

Panelists:

Alan Martin Redmond, Centre Scientifique et Technique du Bâtiment, France
Fahim Salmi, University of South-Eastern Norway, Norway
Oliver Michler, TU Dresden, Germany
Lorena Parra Borral, Universitat Politècnica de València, Spain

Panel 2

Theme: Challenges of AI-based Technologies and Applications

(explainability, trustability, cognition, security, cognitive impairments, measurement accuracy, etc.)
(networking, decisions, health, virtual reality, human-computer interactions, etc.)

Chair: Petre Dini, IARIA, USA/EU

Panelists:

Luigi Lavezza, Università degli Studi dell'Insubria, Italy
Malcolm Crowe, University of the West of Scotland, United Kingdom
Arcady Zhukov, University Basque Country, Dept. Polymers Adv. Mater., Spain
Diroo Cavendish, Kyushu Institute of Technology, Japan/USA

Open discussion

Theme: The Future of Recognition Systems

(status, challenges, vision)

Coordinators:

Malcolm Crowe, University of the West of Scotland, United Kingdom
Oliver Michler, TU Dresden, Germany
Hany Moustapha, École de Technologie Supérieure, Montréal, Canada

Regular Sessions

IARIA Congress 2022, The 2022 IARIA Annual Congress on Frontiers in Science, Technology, Services, and Applications

Advanced Functional Amorphous Magnetic Microwires for Technological Applications
Arcady Zhukov, Mihail Ipatov, Paula Corte-León, Alvaro Gonzalez, Alfonso García- Gómez, Valentina Zhukova
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Investigating Hand Dexterity in Patients with Hand Injuries through A Self-made Data Collection Glove
Jong-Chen Chen, Chih-Chen Hung
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Spatial and Temporal Registration of Asynchronous Multi-Sensors for Minimally Invasive Surgery Application
Udohin Eshetari, Ali T. Alcauni
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Electronic Surveillance and Security Applications of Magnetic Glass-coated Microwires.
Valentina Zhukova, Mihail Ipatov, Paula Corte-León, Alvaro Gonzalez, Alfonso García- Gómez, Arcady Zhukov
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Using Locally Weighted Regression to Estimate the Functional Size of Software: a Preliminary Study
Luigi Lavezza, Angela Locoro, Roberto Mei
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Detecting Novel Variants of Application Layer (D)DoS Attacks using Supervised Learning
Etienne van de Bijl, Jan Klein, Joris Pries, Rob van der Mei, Sandjai Bhulai
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Identification of Tropical Dry Forest Transformation in the Colombian Caribbean Region Using Acoustic Recordings through Unsupervised Learning
Nestor Rendón, Susana Rodríguez-Burica, Claudia Isaza
- presentation slides / video / full article in [Thinkmind Digital Library](#)

An Epidemiological Approach for Mobile Ad-Hoc Networks Monitoring
Christophe Gueyeu, Abdelhak Mahmoud, Jacques Bahr
- presentation slides / video / full article in [Thinkmind Digital Library](#)

A Camera-Vision-based Indoor Navigation and Obstacle Avoidance Wearable Assistive Device for Visually Impaired People
Wei-Jen Lin, Mu-Chun Su, Chun-Hsiang Cheng, Cheng-Yu Tsai, Yi-Hsin Chen
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Digital Twin Based Industrial Services - Just Hype or Real Business?
Jukka Hemälä
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Explainable Kinship: The Importance of Facial Features in Kinship Recognition
Britt van Leeuwen, Anvin Garsekole, Joris Pries, Etienne van de Bijl, Jan Klein
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Common Data Model for the Microservices of a RadioPropagation Tool
Adrian Valledor, Marcos Baranquero, Juan Casado, Josefa Gómez, Abdelhamid Tayebi
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Detecting Venous Disorders via Near-Infrared Imaging: Observation of Varicose Vein Development
Huseyn A. Erdem, Senah Ulku
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Flexibility of Modular and Accountable MLOps Pipelines for CPS
Philipp Ruff, Christoph Reich, Daffar Ould-Abdeslam
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Early Risk Detection of Bachelor's Student Withdrawal or Long-Term Retention
Isaac Caicedo-Castro, Oswaldo Vélez-Lango, Mario Macea-Anaya, Samir Castañó-Rivera, Rubby Castro-Piñe
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A Data-Reuse Approach for the HLS-DGD Algorithm
Imad Dornel Fici, Cristian-Lucian Stanciu, Carmela Elisei-Iliecu, Cristian Anghel, Constantin Paleologu
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Enhanced Robust Convex Relaxation Framework for Optimal Controllability of Certain Large Complex Networked Systems
Steve Chan
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Secure Publication Subscription Framework for Reliable Information Dissemination
Shugo Yoshimura, Kouki Inoue, Diroo Cavendish, Hiroshi Koide
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Recommendation Ranking Based on AHP Approach for Productivity Improvement in SME Context
Youssef Abdelaziz, Kamel Chelghoum, Imad Kacem
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Advances in Sensors and X-ray Spectroscopy for Agricultural Soil Analysis
Paulo E. Cruvinel
- presentation slides / video / full article in [Thinkmind Digital Library](#)

An Optimistic, Restful, Serialized RDBMS Using Immutabile Structures [PRESENTATION]
Malcolm Crowe, Fritz Laun
- presentation slides / video

Managing Power Infrastructure Using LIDAR [PRESENTATION]
Wenli Sultan
- presentation slides / video

Micro-Road-Pricing for Highway Toll Collection with Reserving Spatio-Temporal Grid in the Era of Automated Vehicle (POSTER)
Habibullah Babak, Kenye Sato
- presentation slides / video

MODERN SYSTEMS 2022, International Conference of Modern Systems Engineering Solutions

Investigating the Conditions of Emerging Requirements of Advanced Technologies for BIM-SPEED Platform
Alan Martin Redmond, Sora Alvarez-Osaz, Nicolas Pastorely
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Developing European Defense Strategy for Electromagnetic Resilience Infrastructure Network
Alan Martin Redmond, Alexandru Georgescu
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Beyond Industry 4.0/5.0: Towards a Smart Digital Green Society - A Canadian Perspective [PRESENTATION]
Hany Moustapha
- presentation slides / video

Ensure a Stable Power Grid when using Renewable Energy
Alexander Kutsevg, Mo Mansouri
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Applying Systems Thinking for Early Validation of a Case Study Definition: An Automated Parking System
Haytham B. Ali, Mo Mansouri, Gerrit Müller
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Applying Conceptual Modeling and Failure Data Analysis for "Actual Need" Exploration: Case Study for an Automated Parking System
Haytham B. Ali, Gerrit Müller, Fahim A. Salmi
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Preventing E-Government Tragedy Of The Clouds Using System Thinking Methods
Geoffrey Lichtenheim, Mo Mansouri
- presentation slides / video / full article in [Thinkmind Digital Library](#)

User-centered Data Driven Approach to Enhance Information Exploration, Communication and Traceability in a Complex Systems Engineering Environment
Fahim Salmi, Haytham Ali, Gerrit Müller, Kristin Falk
- presentation slides / video / full article in [Thinkmind Digital Library](#)

State of Affair in terms of Big Data Utilization in Complex System Engineering Organizations
Fahim Salmi, Haytham Ali, Tommy Langen, Andreas Wetters, Gerrit Müller, Kristin Falk
- presentation slides / video / full article in [Thinkmind Digital Library](#)

AutoDrone - Use of Autonomously Operated Drone Technology in Forest Inventory
Robert Richter, Christopher Dürkel, Oliver Michler
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Implementation of the RAM Analyses into a Discrete Event Simulation of a Process in Early Stages of its Development
Martin Kubice, Maurice Penzlin
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VR-SysML: SysML Model Visualization and Immersion in Virtual Reality
Roy Oberhauser
- presentation slides / video / full article in [Thinkmind Digital Library](#)

A Systematic Mapping of Natural Gas Transportation Systems' Reliability and Risks Analysis
Yefeng Liang, Mo Mansouri
- presentation slides / video / full article in [Thinkmind Digital Library](#)

Multi-Protocol Interoperability Between Distributed Cyber-Physical Systems Towards Industry 4.0 Collaborative Optimization
Md Sabbir Bin Asad, Christophe Danjou
- presentation slides / video / full article in [Thinkmind Digital Library](#)

PREDICTION SOLUTIONS 2022, International Conference on Prediction Solutions for Technical and Societal Systems

A Call Center Model for Online Mental Health Support
Tim Rens de Boer, Saskia Mérelle, Sandjai Bhulai, Rob van der Mei
- presentation slides / video / full article in [Thinkmind Digital Library](#)

SOCIETY TRENDS 2022, International Conference on Technical Advances and Human Consequences

Recommendation Systems Supporting the Educational Procedure: the Case of Grifobot
Vassilis Pouloupoulos, Manolis Wallace, Panagiotis Kokkinos, Marina Lantzouni
- presentation slides / video / full article in [Thinkmind Digital Library](#)

The Digital Transformation of Education [PRESENTATION]
Dennis Scheukens
- presentation slides / video

Farewell Message

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