

EJEA International Conference 2021 on

Human-centered Sustainability and Innovation for an AI-assisted Future: New Interdisciplinary Education & Research for the Next Stages in Japan and Europe

AIが支援する未来に向けた人間中心のサステナビリティとイノベーションを考える：
新たなステージへ導く日本とヨーロッパの学際的な教育と研究の紹介

October 22nd - 24th, 2021 in Takamatsu, Japan and online

jointly organized by

the European Japan Experts Association (EJEA), Kagawa University, Fraunhofer Institute for Applied Information Technology FIT and the Institute for Security and Development Policy (ISDP)

supported by

Japanese German Center Berlin (JDZB), EU-Japan Centre for Industrial Cooperation, German Research Ambassadors Network for Industrial Technology Endeavors (GRANITE), Japan-German Society Kagawa, JETRO Kagawa, Kagawa Prefecture (Japan), Modular Management Group (Sweden), Takamatsu City (Japan), Women's International Shipping & Trading Association (WISTA Romania)

sponsored by

Toshiba International Foundation (TIFO), Frontiers in Artificial Intelligence, Kagawa Industry Support Foundation (KISF), Swedish Foundation for Strategic Research

The **conference is planned to be held in hybrid-style** (physical meeting in Takamatsu, **Japan** and online participation daytime in **Europe**) on **Oct. 22nd (Fr), 23rd (Sat) and 24th (Sun), 2021 (8:00-13:00 CET / 15:00-20:00 JST)**

NEW

Due to the outbreak situation of COVID-19 all over the world, the committee decided as follows:

1. The conference will be mainly accomplished **ONLINE**
2. Conference fee is **FREE of charge**
3. The deadline for submission has been extended until **September 15th, 2021**

Official **language** of the conference is **English**.

The conference program will be published and updated on the conference's website: <https://www.kagawa-u.ac.jp/kuio/circ/event/ejeaconf/>

Aim of the Conference

In a certain way the aftermath of the COVID-19 pandemic defined the organizer's discussions about the content of this conference. In Europe as well as in Japan we observed, that after a

first phase of stagnation immediately after the outbreak of the pandemic has been overcome, people all over the globe tried to adjust and modify their everyday lives. Many of these changes in our private and professional life came along with new technologies. Within a few weeks only we rushed into the “digital transformation” – a process that we have been discussing for years with a long-term perspective became reality almost “overnight”!

Against this background, the organizers of this conference address the current COVID-situation that is also heating-up the discussion on digital transformation. However, the focus of this conference reaches far beyond! Contributions and practical experiences to this conference will deal with questions, such as:

How can these new models and methods help to develop and realize green / sustainable / secure and resilient initiatives to support local and global communities?

- “Green Sustainable Societies” and “SDGs (sustainable development goals)” are gaining more and more importance in the policies of the European Union and of Japan. How can we create innovative forms of close intercultural and interdisciplinary cooperation that are urgently needed in times of “social distancing”?
- How can we in research and education develop new intercultural and interdisciplinary models and methods using advanced Artificial Intelligence (AI) centered concepts?
- What about transparency, understandability and responsibility in using AI technologies in a human-centered way?

Thus, in face of the complexity and interconnectedness of the processes and structures in digital transformation and future usage of AI,

- a. holistic, general, and multi-level views must be taken into account, considering
- b. the global and cross-cultural contexts, with an explicit focus on
- c. harmony created by human wellbeing, human security and social peace.

To achieve these goals and to update the Japanese-European relationship in order to strengthen exchange and collaboration between the two regions the priorities of the conference focus on providing forums for **research and education as well as innovation and industrial application**. Furthermore, we strongly encourage especially the young generation for implementing the above-mentioned scientific and educational measures in Japan as well as in Europe.

The aim of the conference is to develop integrated views and common European-Japanese recommendations which have the potential to avoid digital risks like division of society, socially incompatible developments, disintegration, leaving behind the elderly, social conflicts etc. and to support digital chances to reach aims like equality and fairness of participation, balance of chances and opportunities, cooperation as well as competition, human wellbeing, social peace and to develop the societal and digital transformation in a peaceful spirit based on high technology.

We invite you for active contribution with lectures, workshops, posters, and discussions in developing new advanced applications of AI for fostering

- new concrete interdisciplinary methods and models to achieve sustainable and resilient societies
- new areas of research and education as well as innovation and industrial application for the benefit of all generations
- new opportunities for and forms of cooperation and partnerships on a local, international, and global level

Target Groups

Individual experts and citizens from all age groups, decision makers and opinion leaders from related organizations, companies, universities, research institutes as well as public administration and governments from Japan and Europe. By this a bank of knowledge and expertise will be created.

Keynote Lectures

- Dr. Colin De Kwant
“Sustainable Mobility Scenario Modeling: Evaluating Future Resilience of Modular Concepts for Electrified Trucks”
Vice President Modular Management®; Lecturer at Royal Institute of Technology (Sweden)
- Dr. Yuko Harayama
“Human in the Loop or Human-centered” (tbc)
Executive Director RIKEN (Japan)
former Executive Member of Council for Science, Technology, and Innovation
- Prof. Dr. Fredrik Heintz
“Education for an AI-assisted Future - From Primary Education to Life-Long Learning”
Linköping University, Dept. of Computer and Information Science (Sweden)
EU Commission High-Level Expert Group on AI
- Prof. Dr. Satoshi Murayama
“Environmental humanities: a long-term local history approach to living spaces to be sustained”
Professor Emeritus, Co-convenor of the International Consortium for Earth and Development Sciences, Kagawa University (Japan)
- Dr. Lucas Paletta
“Cognitive Sensing for Intuitive Interaction, Well-being and Care“
Human Factors Lab at Joanneum Research Forschungsgesellschaft mbH
DIGITAL – Institute for Information and Communication Technologies (Austria)
- Dr. René Reiners
“Human-Centered System Design for Successful Digital Transformation”
Director of User-Centered Computing at Fraunhofer Institute for Applied Information Technology FIT (Germany), Coordinator of GRANITE
- Prof. Dr. Hiroshi Tsuji
“From 45 Years Experience on R&D and Education of Systems Sciences”
Executive Director, University Public Corporation Osaka (Japan)
former President of Osaka Prefecture University

Call for Contributions

We welcome **abstract** submissions for the following categories:

1. Oral Contribution

We ask for oral contributions, that should be no longer than 10 minutes and presented during parallel workshops. Currently the following workshops are foreseen for a resilient post-Corona reality shaped by human and artificial intelligence (AI) – contributions for additional workshops are welcome:

- Educational Change: New Models and New Thinking in Intercultural Concepts: chaired by Prof. Dr. Toshihiro Hayashi, Kagawa University (Japan) and Prof. Dr. Anders Törnqvall, Linköping University (Sweden)
- eHealth / Tele-Medicine / Medical Engineering: chaired by Prof. Dr. Kazuhiro Hara and Prof. Dr. Ichiro Ishimaru, Kagawa University (Japan)
- Smart City: chaired by Mr. Orfeas Voutyras, M-Sec project (Japan-Europe)
- GRANITE workshop: chaired by Dr. René Reiners, Fraunhofer FIT (Germany) and Prof. Dr. Satoru Takahashi, Kagawa University (Japan)
- Environmental Humanities: Water, Air and Land for Sustainable Living Spaces: chaired by Dr. Satoshi Murayama and Prof. Dr. Toru Terao, Kagawa University (Japan)
- Distributed Cognition in Learning and Behavioral Change – Based on Human and Artificial Intelligence: chaired by Prof. Dr. Dietrich Albert, University of Graz (Austria), Prof. Dr. Xiangen Hu, University of Memphis (USA) & Central China Normal University (China), Prof. Dr. Tomoko Kojiri, Kansai University (Japan), and Dr. Paul C. Seitlinger, Tallinn University (Estonia) & University of Graz (Austria)
- Human-Involvement in Technology Advancement: chaired by Dr. René Reiners, Fraunhofer FIT (Germany) and Prof. Dr. Daisuke Sasaki, Kagawa University (Japan)
- Human Security and Sustainability: chaired by Dr. Lars Vargö, Director Japan Center, Institute for Security and Development Policy (Sweden)

Additional workshops may be created according to submissions for oral contributions.

2. Organized Workshop

We welcome your offers to organize and co-chair (Europe and Japan) a workshop in the scope of the conference. Please note that organization must be provided by the applicant itself. The platform and premises will be organized by the conference.

3. Posters

Posters focusing on human-centered sustainability and innovation for an AI-assisted future are very welcome, also from a more specific perspective. Submissions are not limited to established academics; we also encourage students and representatives from the industry to submit their posters!

4. Demonstrations

Demonstrations (at site or online) from industry and research institutions dealing with AI-assisted systems (robots, AI-software etc.) are very welcome.

5. Visits at Local Companies

The conference offers participants exclusive insights into the practical aspects and the application of AI-assisted innovations! Please participate in this format for networking and professional exchange on current topics, realizations, and possible collaborations!

Submission Guidelines

All submissions must be original and not simultaneously submitted to another conference.

Submissions should include:

- Given name, family name, title, affiliation, URL, email address, phone number
- Abstract: 1 page abstract is suitable, however, we accept one up to 4 pages.
- Optional: CV
- Please indicate whether you want to organize a workshop, contribute to a workshop, to present a poster or a demonstration.
- Also please indicate whether you are interested in publishing in the journal "Frontiers in Artificial Intelligence".

NEW

The deadline for submission has been extended, please submit your abstract in English until September 15th, 2021

either via: <https://easychair.org/conferences/?conf=ejeac2021conf>

or via e-mail to ejea2021conf-c@kagawa-u.ac.jp

by using the template offered by Kagawa University:
<https://www.kagawa-u.ac.jp/kuio/circ/event/ejeaconf/>

Results will be notified by September 30th, 2021.

Conference Fee

NEW

The conference fee is FREE since the conference will be mainly accomplished online.

Publication of Contributions

Pending peer-review, extended content will be published within a Research Topic entitled "AI for Human Learning and Behavior Change" in *Frontiers in Artificial Intelligence* (ISSN 2624-8212). More details and dedicated links will follow in summer 2021 (<https://www.frontiersin.org/journals/artificial-intelligence>)

In addition, **all** contributions can be published in the in **Kagawa University International Journal** (ISSN 1884-8745) after extending it to a two-page mini-paper.

NEW

All participants will be asked by the organizing committee if they wish to publish their paper or not. If you wish to publish, further instruction of Kagawa University International Journal will also be given to you and you can finalize your manuscript for submission to this journal with a page limit of less than 6 pages. Your manuscript will have to go through the reviewing process. This issue is scheduled to be published in June 2022.

Program Committee

- Prof. Dr. Dietrich **Albert**, University of Graz (Austria)
- Prof. Dr. Yoshiro **Imai**, Kagawa University (Japan)
- Prof. Dr. Tomoko **Kojiri**, Kansai University (Japan)
- Dr. Anja **Linnemann**, Fraunhofer Institute for Applied Information Technology FIT (Germany)

- Prof. Dr. Anders **Törnvall**, Linköping University (Sweden)
- Prof. Dr. Masaaki **Tokuda**, Kagawa University (Japan)
- Dr. Lars **Vargö**, Institute for Security and Development Policy (Sweden)

Contact

All questions about submissions should be emailed to:
ejea2021conf-c@kagawa-u.ac.jp

Registration

To **register for the conference**, you are kindly asked to write an e-mail to our conference registration address: ejea-reg-c@kagawa-u.ac.jp

Please write into the **email subject** line: **2021EJEA_Conf_Regist**

In your registration email please **include the following information for each person to be registered:**

- 1) First Name
- 2) Family Name
- 3) E-mail address
- 4) Affiliation
- 5) Affiliation postal address

Venue

The conference will be organized as hybrid event at Kagawa University, 1-1 Saiwai-cho, Takamatsu, Kagawa (Japan). All Workshops and talks will also be made available online for registered participants.

Kagawa Prefecture is located in Shikoku Island, one of the four major islands of Japan, where no metropolitan cities exist, and beautiful nature and traditions have well preserved. Its capitol, Takamatsu-city, has been working to promote "Smart City" with human-centered policies and welcomes the conference to be held in Kagawa.

The 88-temple pilgrimage route, art-island Naoshima, Yashima Plateau, Kōpira Temple, Ritsurin Garden, olive-island Shodoshima, Seto Inland Sea National Park, Sanuki Udon noodle, Marugame Uchiwa, Lacquer wares – just to mention a few **highlights of Kagawa Prefecture waiting to welcome you!**

On your way to Kagawa you might stop-over in Okayama, Hiroshima, Miyajima Shrine, Himeji Castle and enjoy Japanese culture apart from metropolitan cities.

The closest international airport is Kansai International Airport (near Osaka). Several flights from Tokyo Haneda International Airport and 2 from Narita International Airport are available to Takamatsu Airport which primarily handles domestic flights except for those from Hong Kong, Shanghai, Taipei, and Incheon.



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