

RELATED CONFERENCES, CALL FOR PAPERS/PARTICIPANTS

TCII Sponsored Conferences

WI-IAT 2021

The 2021 IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology

Melbourne, Australia (Hybrid conference with online and offline modes)

December 14-17, 2021

<https://www.wi-iat.com/wi-iat2021/index.html>

Web Intelligence and Intelligent Agent Technology (WI-IAT) aims to achieve a multi-disciplinary balance between research advances in theories and methods usually associated with collective intelligence, data science, human-centric computing, knowledge management, network science, autonomous agents and multi-agent systems. It is committed to addressing research that both deepen the understanding of computational, logical, cognitive, physical, and social foundations of the future Web, and enable the development and application of intelligent technologies. WI-IAT'21 provides a premier forum and features high-quality, original research papers and real-world applications in all theoretical and technology areas that make up the field of Web Intelligence and Intelligent Agent Technology. WI-IAT'21 welcomes research and application, as well as Industry/Demo-Track paper submissions.

This year celebrates the 20th anniversary of the WI-IAT. The 2021 IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT'21) provides a premier international forum to bring together researchers and practitioners from diverse fields for presentation of original research results, as well as exchange and dissemination of innovative and practical development experiences on Web intelligence and intelligent agent technology research and applications. Academics, professionals and industry people are encouraged to exchange their ideas, findings and strategies in utilizing the

power of human brains and man-made networks to create a better world. More specifically, the fields of how intelligence is impacting the Web of People, the Web of Data, the Web of Things, the Web of Trust, the Web of Agents, and a special track: emerging Web in health and smart living in the 5G Era. Therefore, the theme of WI-IAT'21 will be "Web Intelligence = AI in the Connected World". There are approximately 79 topics spread across these 6 tracks.

Special events will be arranged for the celebration of WI-IAT's 20th anniversary. Every regular registration has included one ticket access to the WI-IAT 20th Anniversary Celebrations on-site at Berth Dockland, 45 New Quay Promenade. Docklands VIC, 3008.

ICDM 2021

The 21st IEEE International Conference on Data Mining

Auckland, New Zealand (Virtual Conference)

December 7-10, 2021

<https://icdm2021.auckland.ac.nz/>

The IEEE International Conference on Data Mining (ICDM) has established itself as the world's premier research conference in data mining. It provides an international forum for presentation of original research results, as well as exchange and dissemination of innovative and practical development experiences. The conference covers all aspects of data mining, including algorithms, software, systems, and applications. ICDM draws researchers, application developers, and practitioners from a wide range of data mining related areas such as big data, deep learning, pattern recognition, statistical and machine learning, databases, data warehousing, data visualization, knowledge-based systems, and high-performance computing. By promoting novel, high-quality research findings, and innovative solutions to challenging data mining problems, the conference seeks to advance the state-of-the-art in data mining.

Topics of interest at this year's conference include: Foundations, algorithms, models and theory of data mining, including big data mining. Deep learning and statistical methods for data

mining; Mining from heterogeneous data sources, including text, semi-structured, spatio-temporal, streaming, graph, web, and multimedia data; Data mining systems and platforms, and their efficiency, scalability, security and privacy; Data mining for modelling, visualization, personalization, and recommendation; Data mining for cyber-physical systems and complex, time-evolving networks; and Applications of data mining in social sciences, physical sciences, engineering, life sciences, web, marketing, finance, precision medicine, health informatics, and other domains. There is also an encouragement of submissions for emerging topics of high importance, such as ethical data analytics, automated data analytics, data-driven reasoning, interpretable modeling, modeling with evolving environment, cyber-physical systems, multi-modality data mining, and heterogeneous data integration and mining.

Awards will be conferred at the conference to the authors of the best paper and the best student paper. A selected number of best papers will be invited for possible inclusion, in an expanded and revised form, in the Knowledge and Information Systems journal (<http://kais.bigke.org/>) published by Springer.

ICHI 2022

The 10th IEEE International Conference on Healthcare Informatics

Lisbon, Portugal

April 14-15, 2022

<https://waset.org/healthcare-informatics-conference-in-april-2022-in-lisbon>

The International Conference on Healthcare Informatics (ICHI 2022) aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Healthcare Informatics. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Healthcare Informatics.

The international research conference program is

designed for original research contributions and presentations in all research fields, with overarching categories including: Medical and Health Sciences Research; Human and Social Sciences Research, and Engineering and Physical Sciences Research. Each category has a number of underlying topics that are timely and emerging areas of interest in the domain. Prospective authors are kindly encouraged to contribute to and help shape the conference through submissions of their research abstracts, papers and e-posters. Also, high quality research contributions describing original and unpublished results of conceptual, constructive, empirical, experimental, or theoretical work in all areas of Healthcare Informatics are cordially invited for presentation at the conference.

ICHI 2022 has teamed up with the Special Journal Issue on Healthcare Informatics. A number of selected high-impact full text papers will also be considered for the special journal issues. All submitted papers will have the opportunity to be considered for this Special Journal Issue. The paper selection will be carried out during the peer review process as well as at the conference presentation stage. Submitted papers must not be under consideration by any other journal or publication. The final decision for paper selection will be made based on peer review reports by the Guest Editors and the Editor-in-Chief jointly. Selected full-text papers will be published online free of charge.

IEEE BigData 2021

The 2021 IEEE International Conference on Big Data (IEEE BigData 2021)

Virtual Conference

December 15-18, 2021

<https://bigdataieee.org/BigData2021/>

The 2021 IEEE International Conference on Big Data (IEEE BigData 2021) will continue the success of the previous IEEE Big Data conferences. It will provide a leading forum for disseminating the latest results in Big Data Research, Development, and Applications. The conference called for original research papers (and significant work-in-progress papers) in any aspect of Big Data, with emphasis on 5Vs (Volume, Velocity, Variety, Value and Veracity), including the Big Data challenges in scientific and engineering, social, sensor/IoT/IoE, and multimedia (audio, video, image, etc) big data systems and applications.

The IEEE BigData 2021 conference will feature

regular and short papers across the main track and Industry and Government Program sessions. The main paper sessions will have 32 topics based around big data themes, while the Industry and Government Program sessions has 7 topics ranging from Machine Learning to IoT. This year's conference also has the BigData Cup Challenges, with focus on a Reinforcement Learning based Recommender System Challenge.

IEEE ICKG 2022

The 12th IEEE International Conference on Knowledge Graph (ICKG-2022)

Amsterdam, Netherlands

November 4-5, 2022

<https://waset.org/knowledge-graphs-conference-in-november-2022-in-amsterdam>

International Conference on Knowledge Graphs aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Knowledge Graphs. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Knowledge Graphs.

Tracks presented at the conference included: Machine Learning and Knowledge Graphs; Reasoning with Knowledge Graphs; Knowledge Graph Analytics and Applications; Knowledge Graphs and NLP; Knowledge graphs for Explainable AI; Multimodal Knowledge Graphs, Social Network and Representation Learning; Knowledge Graphs for Cultural Heritage; Knowledge Graphs for Geospatial Information Systems; Domain Knowledge Graphs, and Knowledge Graphs for Education.

AAMAS 2022

The 21st International Conference on Autonomous Agents and Multi-Agent Systems

Auckland, New Zealand

May 9-13, 2022

<https://aamas2022-conference.auckland.ac.nz/>

AAMAS (International Conference on Autonomous Agents and Multiagent Systems) is

the largest and most influential conference in the area of agents and multiagent systems. The aim of the conference is to bring together researchers and practitioners in all areas of agent technology and to provide a single, high-profile, internationally renowned forum for research in the theory and practice of autonomous agents and multiagent systems. AAMAS is the flagship conference of the non-profit International Foundation for Autonomous Agents and Multiagent Systems (IFAAMAS).

AAMAS-22 sought technical papers describing significant and original research on all aspects of the theory and practice of autonomous agents and multiagent systems. Papers are associated with areas of interest, including: Coordination, Organisations, Institutions, and Norms; Markets, Auctions, and Non-Cooperative Game Theory; Social Choice and Cooperative Game Theory; Knowledge Representation, Reasoning, and Planning; Learning and Adaptation; Modelling and Simulation of Societies; Humans and AI / Human-Agent Interaction; Engineering Multiagent Systems; Robotics, and Innovative Applications.

AAMAS-2022 will feature three special tracks, the Blue Sky Ideas Track, the JAAMAS Track, and the Demo Track, each with a separate Call for Papers. The focus of the Blue Sky Ideas Track is on visionary ideas, long-term challenges, new research opportunities, and controversial debate. The JAAMAS Track offers authors of papers recently published in the Journal of Autonomous Agents and Multiagent Systems (JAAMAS) that have not previously appeared as full papers in an archival conference the opportunity to present their work at AAMAS-2022. The Demo Track, finally, allows participants from both academia and industry to showcase their latest developments in agent-based and robotic systems.

AAAI 2022

The 36th AAAI Conference on Artificial Intelligence

Vancouver, BC, Canada

February 22-March 1, 2022

<https://aaai.org/Conferences/AAAI-22/>

The Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI-21) will be held in Vancouver, BC, Canada, February 22 - March 1, 2021. The general chair will be Katia Sycara (Carnegie Mellon University, USA) and the

program cochairs will be Vasant Honavar (Pennsylvania State University, USA) and Matthijs Spaan (Delft University of Technology, Netherlands).

The purpose of the AAAI conference is to promote research in artificial intelligence (AI) and scientific exchange among AI researchers, practitioners, scientists, and engineers in affiliated disciplines. AAAI-22 will have a diverse technical track, student abstracts, poster sessions, invited speakers, tutorials, workshops, and exhibit and competition programs, all selected according to the highest reviewing standards. AAAI-22 welcomes submissions on mainstream AI topics as well as novel crosscutting work in related areas. AAAI-22 will be co-located with the Thirty-Fourth Innovative Applications of Artificial Intelligence Conference (IAAI-22) and the Twelfth AAAI Symposium on Educational Advances in Artificial Intelligence (EAAI-22).

AAAI-22 welcomes submissions reporting research that advances artificial intelligence, broadly conceived. The conference scope includes machine learning (deep learning, statistical learning, etc), natural language processing, computer vision, data mining, multiagent systems, knowledge representation, human-in-the-loop AI, search, planning, reasoning, robotics and perception, and ethics. In addition to fundamental work focused on any one of these areas we expressly encourage work that cuts across technical areas of AI, (e.g., machine learning and computer vision; computer vision and natural language processing; or machine learning and planning), bridges between AI and a related research area (e.g., neuroscience; cognitive science) or develops AI techniques in the context of important application domains, such as healthcare, sustainability, transportation, and commerce.

As in past years, AAAI-22 will include a Track on AI for Social Impact (AISI). Submissions to this track will be reviewed according to a rubric that emphasizes the fit between the techniques used and a problem of social importance, rather than simply rewarding technical novelty. In particular, reviewers will assess novelty of the AI problem formulation studied; the paper's engagement with previous literature on the application problem (whether in the AI literature or elsewhere); both novelty of and justification for the proposed solution; quality of evaluation; facilitation of follow-up work; and overall scope and promise for social impact. Further details are

available at <https://aaai.org/Conferences/AAAI-22/aiforsocialimpactcall/>

SDM22

The 2022 SIAM International Conference on Data Mining

Hybrid Conference

April 28-30, 2022

<https://www.siam.org/conferences/cm/conference/sdm22>

Data mining is the computational process for discovering valuable knowledge from data – the core of Data Science. It has enormous application in numerous fields, including science, engineering, healthcare, business, and medicine. Typical datasets in these fields are large, complex, and often noisy. Extracting knowledge from these datasets requires the use of sophisticated, high-performance, and principled analysis techniques and algorithms, which are based on sound theoretical and statistical foundations. These techniques in turn require implementations on high performance computational infrastructure that are carefully tuned for performance. Powerful visualization technologies along with effective user interfaces are also essential to make data mining tools appealing to researchers, analysts, data scientists and application developers from different disciplines, as well as usable by stakeholders.

The SDM conference provides a venue for researchers who are addressing these problems to present their work in a peer-reviewed forum. It also provides an ideal setting for graduate students to network and get feedback for their work (as part of the doctoral forum) and everyone new to the field to learn about cutting-edge research by hearing outstanding invited speakers and attending presentations and tutorials (included with conference registration). A set of focused workshops is also held on the last day of the conference.

SDM22 has three main themes in Methods and Algorithms, Applications and Human Factors and Social Issues, each with a number of related topics. Each category contains a multitude of related themes as topics for papers. The proceedings of the conference are published in archival form and are made available on the SIAM web site, to be posted online April 2022.

IJCAI-ECAI 2022

The 31st International Joint Conference on Artificial Intelligence

Vienna, Austria

July 23-29, 2022

<http://www.ijcai-21.org/>

IJCAI-ECAI 2022 is the 31st International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence, the premier international gathering of researchers in AI. Starting from 1969, IJCAI has brought together the international AI community to communicate the advances and achievements of artificial intelligence research.

Following the tradition of previous IJCAIs, IJCAI-ECAI 2022 will feature the following tracks: workshops and tutorials; a doctoral consortium; the main technical program; an early career spotlight track; special tracks on “AI for Good” and on “AI, the Arts and Creativity”; survey, sister best paper and journal tracks; a demo, a video and a robot exhibition track; a diversity and inclusion program, as well as competitions and challenges.

Submissions to IJCAI-ECAI 22 should report on significant, original, and previously unpublished results on any aspect of artificial intelligence. Papers on novel AI research problems, on AI techniques for novel application domains, and papers that cross discipline boundaries within AI are especially encouraged. The submission site for IJCAI-ECAI 22 opens December 30, 2021.