



## Conference Reports

**Louise A. Dennis** (University of Manchester; [louise.dennis@manchester.ac.uk](mailto:louise.dennis@manchester.ac.uk))

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This section is compiled from reports of recent events sponsored or run in cooperation with ACM SIGAI. In general these reports were written and submitted by the conference organisers.

### **The ACM- SIGAI POST CONFERENCE REPORT 12th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management (IC3K '21)**

*Online 11/02/2020-11/04/2020*

<http://www.ic3k.org/?y=2020>

The purpose of the IC3K is to bring together researchers, engineers and practitioners on the areas of Knowledge Discovery, Knowledge Engineering and Knowledge Management. IC3K is composed of three co-located conferences, each specialized in at least one of the aforementioned main knowledge areas.

IC3K 2020 was exceptionally held as an online streaming event, due to covid-19, from November 2 to 4, 2020. It was sponsored by the Institute for Systems and Technologies of Information, Control and Communication (INSTICC).

IC3K 2020 was also organized in cooperation with the ACM SIGAI - ACM Special Interest Group on Artificial Intelligence, the Portuguese Association for Artificial Intelligence, the Associação Portuguesa de Reconhecimento de Padrões (APRP), and the Associazione Italiana per l'Intelligenza Artificiale.

IC3K received 133 paper submissions from 44 countries. To evaluate each submission, a double-blind paper review was performed by the Program Committee. After a stringent selection process, 21.05% of the papers were published and presented as full papers, i.e. completed work (12 pages/25' oral presentation).

Four invited talks were delivered by internationally distinguished speakers, namely:

- Alexander Smirnov, SPIIRAS, Russian Federation
- Manfred Reichert, Ulm University, Germany
- Frank van Harmelen, The Hybrid Intelligence Center & Vrije Universiteit Amsterdam, Netherlands Stefan Decker, RWTH Aachen University, Germany

Additionally, the conference acknowledged "Best Paper Awards", "Best Student Paper Awards", "Best Poster Awards", one "Best PhD Project Award", and in some cases a "Best Industrial Paper Award", which were all conferred during the conference. More information can be found at: <http://www.ic3k.org/PreviousAwards.aspx>

### **The International Joint Conference on Biomedical Engineering Systems and Technologies (BIOSTEC '21)**

*Online 02/11/2021-02/13/2021*

<http://www.biostec.org/?y=2021>

The purpose of BIOSTEC is to bring together researchers and practitioners, including engineers, biologists, health professionals and informatics/computer scientists, interested in both theoretical advances and applications of information systems, artificial intelligence, signal processing, electronics and other engineering tools in knowledge areas related to biology and medicine. BIOSTEC is composed of five co-located conferences, each specialized in a different knowledge area.

BIOSTEC 2021 was exceptionally held as an online streaming event, due to covid-19, from February 11-13, 2021. It was sponsored by the Institute for Systems and Technologies of Information, Control and Communication (INSTICC) and technically co-sponsored by the IEEE Engineering in Medicine and Biology Society.

BIOSTEC 2021 was also organized in cooperation with the ACM SIGAI - ACM Special Interest Group on Artificial Intelligence, the ACM Special Interest Group on Management Information Systems (SIGMIS), the ACM

Special Interest Group on Accessible Computing (SIG ACCESS), the ACM Special Interest Group on Bioinformatics, Computational Biology, and Biomedical Informatics (SIGBio), the Association for the Advancement of Artificial Intelligence (AAAI), the International Society for Computational Biology (ISCB), the Finnish Society for Medical Physics and Medical Engineering, the Swiss Society for Biomedical Engineering, the German Society for Biomedical Engineering (VDE DGBMT), the Societe Française de Genie Biologique et Medical (SFGBM), and TELIGHT.

BIOSTEC received 265 paper submissions from 52 countries. To evaluate each submission, a double-blind paper review was performed by the Program Committee. After a stringent selection process, 25% of the papers were published and presented as full papers, i.e. completed work (12 pages/25' oral presentation).

Four invited talks were delivered by internationally distinguished speakers, namely:

- Athanasios Tsanas, University of Edinburgh, United Kingdom
- Thomas Ostermann, Universität Witten/Herdecke, Germany
- Mireya Fernández Chimeno, Universitat Politècnica de Catalunya, Spain
- Tiago Guerreiro, Faculdade de Ciências, Universidade de Lisboa, Portugal

Additionally, a “Best Paper Award”, a “Best Student Paper Award”, and a “Best Poster Award” were conferred for each of the sub-conferences that compose BIOSTEC during the event. Furthermore, a “Best Industrial Paper Award” was granted in HEALTHINF, and a “Best PhD Project Award” was granted in the Doctoral Consortium of the BIOSTEC joint conference. More information can be found at: <http://biostec.org/PreviousAwards.aspx>

### **IEEE AIVR 2020 (IEEE International Conference on Artificial Intelligence and Virtual Reality 2020)**

*Online 12/14/2021-12/18/2021*

<https://aivr.science.uu.nl/index.html>

The main intention of IEEE AIVR is to bring together the communities of AI researchers

and VR/AR researchers and everyone working on the intersection between these two areas. While there are plenty events in either of these fields where related researchers could publish their work, IEEE AIVR was founded four years ago based on the observation that having a unique event combining those fields would be beneficial because it could bring together these people distributed over different conferences where their work might only be considered a niche area, it could foster and encourage collaboration between different fields, and in the long run it could create a new, interdisciplinary community. There is still a long way to go, but after its third incarnation now, we see promising developments in this direction.

Like pretty much all conferences scheduled after March 2020, IEEE AIVR 2020 had to be held virtually due to the COVID-19-enforced restrictions. To accommodate for different time zones, the organizers decided to switch from a three full-day schedule to a five half-day schedule with online presentations using video conferencing and interactive poster and demo sessions using the web-based Mobilla Hubs VR environment. Despite the special circumstances due to the pandemic, IEEE AIVR 2020 saw a steady growth in registrations, passing the 100 mark for the first time, and in submissions, which also showed an increase compared to previous years. It is particularly pleasing to see that now in its third incarnation, IEEE AIVR seems to develop a unique community attracting people from different areas. While the majority of submissions is coming from VR/AR-related domains, the relevance that AI does or potentially can play in these works was clearly visible. The event was complemented by five workshops that also addressed interesting and relevant topics at the intersection between AI and VR/AR: One on ethics in AI and VR/AR, one on capturing and rendering of digital humans for AR/VR, one on Immersive Analytics, one on the animation of realistic crowds and humans, and one on VR/AR in medical imaging.

## 15th INTERNATIONAL CONFERENCE ON THE FOUNDATIONS OF DIGITAL GAMES (FDG 2020)

Online 09/15/2020-09/18/2020

<http://fdg2020.org>

The 15th International Conference on the Foundations of Digital Games (FDG'20) took place during 15-18 September as a virtual conference hosted by the University of Malta. FDG is an interdisciplinary conference on technology used to develop digital games and the study of digital games and their design, where academics can present their work to a diverse audience, share new ideas, and find collaborations with different backgrounds. The target audience primarily consists of games researchers and game AI researchers. The theme for FDG'20 was "Games and their Heritage". FDG'20 was originally planned to be hosted in Bugibba, on the Mediterranean island of Malta. Due to the global pandemic and to ensure everyone's well-being, FDG'20 took place in a virtual format with all presenters and attendees participating remotely. Remote attendance permitted a low admission price which in turn led to a much higher attendance than previous years, reaching over 300 registrations on the days of the conference. The conference took place during 15-18 September, with the 11th and 14th of September dedicated to the workshops of FDG'20 and its Doctoral Consortium.

FDG'20 received a total of 143 research paper submissions in eight different research tracks. Of these, 51 were accepted (acceptance rate: 36%). In addition, 44 short papers were accepted from the 143 research paper submissions and from 25 late-breaking paper submissions (overall acceptance rate: 57%). FDG'20 also hosted five workshops, four of which had papers published in the proceedings. Some workshops had a long history within FDG, such as the 11th workshop on Procedural Content Generation, while there were also two new workshops at FDG'20: the Workshop on Forgetting and Remembering and the Workshop on Digital Games for Digital Literacy and Computational Thinking. FDG'20 also included a procedural content generation competition, two panels, six demonstrations, and five presentations at the Doctoral Consortium. Five keynotes framed the conference:

- AI in Content Production Automation, by Sarah Asadi
- Procedural Content Generation as Art, Design and Play, by Tom Betts
- Photography Workshops for Spacemen & Parties in Spreadsheets, by Marie Foulston
- From the Ivory Tower to the Skunk Works - Bringing Research to Life in Industry, by Luke Dicken
- Back to school with Minecraft, by Deirdre Quarnstrom

A best paper ballot included six papers from different tracks. Attendees' voting decided the best paper of FDG'20: "Player-Centered AI for Automatic Game Personalization: Open Problems", by Jichen Zhu and Santiago Ontanon. The runner-up best paper was "Crafting is So Hardcore: Masculinized Making in Gaming Representations of Labor" by Anne Sullivan, Mel Stanfill and Anastasia Salter.

Proceedings of the FDG'20 conference and its workshops can be found at: <https://dl.acm.org/doi/proceedings/10.1145/3402942>



**Louise Dennis** is the Conference Coordination Officer for ACM SIGAI, and a faculty member at the University of Manchester. Her research is in Verification of Autonomous Systems, Cognitive Agents and Machine Ethics. Contact her

at [louise.dennis@manchester.ac.uk](mailto:louise.dennis@manchester.ac.uk).