



# IRCUWU 2023

7<sup>th</sup> International Research Conference

**17<sup>th</sup> & 18<sup>th</sup> August 2023**

*“Digitalization for transition to circular economy ecosystems”*





# IRCUWU 2023

## 7<sup>th</sup> International Research Conference - 2023

*"Digitalization for transition to circular economy ecosystems"*

August 17-18, 2023

Uva Wellassa University  
Badulla  
Sri Lanka

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## Acknowledgement

The successful realization of the 7<sup>th</sup> International Research Conference of Uva Wellassa University (IRCUWU2023), centered around the theme "Digitalization for transition to circular economy ecosystems," owes its existence to the indispensable assistance, contributions, dedication, and well-wishes extended by numerous individuals. This two-day conference commenced with an inauguration session followed by twelve technical sessions.

The Chief Guest, Professor Jayantha Lal Ratnasekera, Vice Chancellor of Uva Wellassa University of Sri Lanka, along with the keynote speakers; Professor R. Balasubramani, Associate Professor, Department of Library and Information Science, Bharathidasan University, India, and Prof. YuanTong Gu, Head of School, Mechanical, Medical and Process Engineering, Queensland University of Technology, Australia, were sincerely appreciated for sharing their invaluable experiences and thoughts with us.

A special thank is deservedly extended to all track coordinators, panel members, and track conveners for their valuable contributions to this event. Furthermore, the authors and presenters deserve endless praise for their contributions and for sharing their essential research findings using various methods.

The audience had the opportunity to witness this work with the ready assistance and significant cooperation extended by the Editor-in-Chief, the members of the Editorial Board, and the Reviewers in finalizing the Proceedings while maintaining the accepted standards in scientific publications.

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We extend our heartfelt gratitude to our esteemed partners and sponsors of the IRCUWU 2023 for their invaluable support in ensuring the resounding success of this event. A special acknowledgment goes to our Gold Partner, Bank of Ceylon-Badulla branch, and our Silver Partners, Coalition for Disaster Resilient Infrastructure, and International Water Management Institute (IWMI). We are equally thankful to our sponsors, Microtech Biological (Pvt) Ltd. and Prome Engineering, as well as our Technical Partner, Computer Peripherals (Pvt) Ltd. Your contributions have profoundly enriched the conference, facilitating the exploration of cutting-edge ideas and solutions. We extend our sincere gratitude for your dedication and collaboration, which have played a pivotal role in the making this conference a success.


Finally, sincere appreciation is extended to all the committed academic, administrative, and non-academic staff members of Uva Wellassa University and all those who actively contributed to the success of IRCUWU2023. Your efforts were instrumental in making this conference a resounding success.

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## **Adopting Artificial Intelligence for digital transformation of University libraries: A review**

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There's a renewed focus on digital transformation (DT) of university libraries to become an intimate information center among emerging generations. Providing various user needs for different generations is a real challenge for a university library. Artificial Intelligence (AI) is one of the pivotal technological tools with the potential to digitally transform a university library. AI has the potential to enhance library services and operations, ultimately improving user experiences and promoting efficient resource management. The lacuna of having a comprehensive review regarding the use of AI in DT of university libraries will be addressed by this study. Thus, the objective of the research was to investigate how AI can have adopted to perform the DL of university libraries. The study is a literature review that was followed by the systematic literature review method. In achieving the purpose, related current empirical knowledge was searched and reviewed on “the use of AI in DT of university libraries” in the EBSCOhost, Lens.org, and Dimensions databases from 1946 (the age of baby boomers) to 2023 (present GenZ). The article selection criteria were executed using the PRISMA article selection flowchart steps. Bibliometric analysis will be performed using RStudio to achieve the research objectives. Literature revealed that; AI can be adopted for 1. Intelligent search and discovery, 2. Virtual assistants 3. Automated collection management, 4. Library management automation with data-driven decision-making options, and 5. For collaboration and building communities. Literature also suggests that the future university libraries will integrate with emerging technologies such as the Internet of Things (IoT), data analytics, and semantic web and lead towards enabling intelligent library systems, advanced recommendation engines, and personalized learning experiences. However, challenges such as ethical considerations, data privacy, algorithm bias, staff training, implementation cost, and user acceptance are critical factors that require careful attention while implementing AI solutions. Thus, more research and tested framework for the digital transformation of university libraries is highly essential before adopting AI into the university library systems.

**Keywords:** Library transformation, Artificial intelligence, University library transformation, AI-driven transformation