SUMMiT
RESEARCH
Book of Abstracts

Book of abstracts of the Research Summit 2024

July 16-19, 2024
University of Aveiro, Portugal

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Research Summit 2024
Universidade de Aveiro

Book of abstracts of the Research Summit 2024
under the theme "50 Years of Research at the UA: Challenges for the Future"

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Acknowledgements

Preface

The Research Summit 2024 took place from July 16-19 under the theme "50 Years of Research at the UA: Challenges for the Future". This forum aimed to foster important debates among the University of Aveiro's research community, increase collaboration, advance the state of the art, and boost research efforts on campus. This year, discussions also focused on the future of the UA. The objectives of Research Summit 2024 were:

- To strengthen networking among faculty members, researchers, and students on campus, developing sustainable research partnerships for more efficient use of infrastructure, sharing of know-how, and contacts;

- To reflect on the past 50 years and discuss the future challenges for the research of the institution;

- To showcase the research carried out at the Research Units;

- To provide PhD students the opportunity to present their work, encouraging them to improve their communication and networking skills.

The Research Summit 2024 was organized differently at this year, with one extra day being added to the general programme. Regarding the structure, 6 UA commissioners were responsible for 6 topics (Materials and Energy, Information, Communication and Microelectronics, Environment and Ocean, Health and Society, Music and Digital Cultures & Education for the XXI Century) to be discussed by international and national experts. The research units coordinators also demonstrated in a pitch how the Unit has contributed to promoting inter, trans, and multidisciplinary research approaches, projecting the future of the unit along these lines. On the following 2 days, presentations by PhD students, as well as first and second cycle students involved in extracurricular research activities, took place, with more training provided to Ph.D. students and a "Best communication Award" in the end of the Summit. We thank the participants for their participation.

This Book of Abstracts and Proceedings, of the Research Summit 2024, is the result of remarkable contributions from young scientists and PhD students working on the topics of the Doctoral Programmes of the University of Aveiro. Although the Research Summit 2024 is aimed at young researchers, senior researchers have also contributed to the success of the conference through their contributions, fostering discussion and collaboration in the research papers included in the book of abstracts and proceedings. The presence of senior scientists and PhD supervisors was very fruitful for all participants and it is hoped that young researchers and PhD students benefited from this experience.

The organisers hope that this Research Summit 2024 was a remarkable opportunity for a fruitful exchange of ideas between the participants and a milestone in the history of the Forums at the University of Aveiro.

Artur M.S. Silva
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Aveiro, Portugal, July 2024.

An EduCITY game in Vale de Ílhavo to preserve cultural heritage and traditions

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Abstract. Vale de Ílhavo is classified as an Aldeia de Portugal due to its high cultural value, especially its typical Carnival with Cardadores (unique in the country) and its gastronomic value (padas and folar). An educational mobile augmented reality game, supported by the EduCITY app, was developed for Vale de Ílhavo, in a collaboration between the University of Aveiro and Ílhavo City Council. The aim of the development of this game is to value and preserve the local cultural heritage and traditions. The game challenges the users to follow a path through six points of interest and fifteen questions, allowing them to explore and learn about local history and activities. The game is aimed at the local community and tourists, of all ages, and was developed in Portuguese and English. Users will access information through multimedia resources integrated into the EduCITY app, including videos and augmented reality, where virtual information is superimposed on physical elements of the environment to be observed, analysed, and to answer correctly. An activity of exploration of the game with seniors is planned in order to collect evaluation data on the educational value of the game. This evaluation supports improvements to the game before its wider exploration within the Municipalitys educational/cultural programme. This work previews future collaborations to create other educational mobile augmented reality games in the citys iconic locations.

Keywords: *EduCITY app; Augmented reality; Educational mobile game; Vale de Ílhavo.*