Record Nr. UNINA9910585780703321 Robotics in education: RiE 2022 / / edited by Wilfried Lepuschitz, [and **Titolo** four others] Pubbl/distr/stampa Cham, Switzerland:,: Springer,, [2022] ©2022 **ISBN** 3-031-12848-6 Descrizione fisica 1 online resource (xi, 198 pages): illustrations (chiefly color) Collana Lecture Notes in Networks and Systems; ; v.515 929.374 Disciplina Soggetti Educational technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Intro -- Preface -- Organization -- Committee -- Co-chairpersons --International Programme Committee -- Local Conference Organization -- Contents -- Workshops, Curricula and Related Aspects --Educational Robots and Flow Experience -- 1 Introduction -- 2 Flow --3 Educational Robots and Flow -- 4 Studying Flow -- 5 Aim -- 6 Methodology -- 7 Results -- 8 Discussion -- 9 Conclusion and Suggestions for Further Studies -- Appendix 1 -- Appendix 2 --References -- Implementation of a Multi-disciplinary Robotics Curriculum for master's Student: The Use Case of AMSCC1 International Semester -- 1 Introduction -- 2 General Considerations and Requirements -- 2.1 Prerequisites -- 2.2 Semester's Goals -- 2.3 Semester Design's Guidelines -- 3 Hardware and Software Selection --3.1 The Robotics Platform -- 3.2 Simulation of the Robot Digital Twin -- 3.3 Operating System, ROS Version and Programming Language Picks -- 3.4 Docker Containers as Last Building Blocks -- 4 Efficiently Learning or Teaching ROS -- 5 The Semester's Syllabus at a Glance --

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Sommario/riassunto

This book comprises the latest achievements in research and development in educational robotics presented at the 13th International Conference on Robotics in Education (RiE), which was carried out as a purely virtual conference from April 27 to 28, 2022. Researchers and educators will find valuable methodologies, experiences, and tools for robotics in education that encourage learning in the fields of science, technology, engineering, arts, and mathematics (STEAM) through the design, creation, and programming of robots addressing real-world societal needs. Social robotics is becoming an important topic in education as well. This also involves various modern technologies ranging from robotics platforms to programming environments and languages. Many papers also prove the positive impact of robotics on the students interests and competence development. The presented approaches cover the whole educative range from kindergarten to the university level and lifelong learning.