1. Record Nr. UNISA996464417503316 Autore Ratchev Svetan Titolo Smart Technologies for Precision Assembly: 9th IFIP WG 5.5 International Precision Assembly Seminar, IPAS 2020, Virtual Event, December 14-15, 2020, Revised Selected Papers Pubbl/distr/stampa Springer Nature, 2021 Cham:,: Springer International Publishing AG,, 2021 ©2021 **ISBN** 3-030-72632-0 Descrizione fisica 1 online resource (371 pages) IFIP Advances in Information and Communication Technology;; v.620 Collana Soggetti Information technology: general issues Artificial intelligence Human-computer interaction Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Intro -- Preface -- Organization -- Contents -- Keynote Paper --Augmented Reality in Assembly Systems: State of the Art and Future Perspectives -- 1 Introduction -- 2 Basics on Augmented Reality -- 2.1 AR Techniques -- 2.2 AR Devices -- 2.3 AR Applications in Production Engineering -- 3 Applications in Manual Assembly Systems -- 3.1 Guidance in Assembly Tasks - Optical and Video See-Through Approaches -- 3.2 Guidance in Assembly Tasks - Image Projection Approaches -- 3.3 Guidance in Complex Assembly Tasks -- 3.4 Order Picking -- 3.5 Quality Control and Inspection -- 3.6 Integration with Sensing Devices -- 3.7 Training -- 4 Applications in Collaborative Assembly Systems -- 5 Other Potential Areas of Application -- 6 Open Issues and Future Perspectives -- 6.1 Hardware and Software Performance -- 6.2 Tracking Methods -- 6.3 User's Acceptance -- 6.4 Authoring Procedure -- 7 Conclusions -- References -- Assembly Design and Planning -- Application of a Standardized Design Procedure

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Sommario/riassunto

This open access book constitutes the refereed post-conference proceedings of the 9th IFIP WG 5.5 International Precision Assembly Seminar, IPAS 2020, held virtually in December 2020. The 16 revised full papers and 10 revised short papers presented together with 1 keynote paper were carefully reviewed and selected from numerous submissions. The papers address topics such as assembly design and planning; assembly operations; assembly cells and systems; human centred assembly; and assistance methods in assembly.