

Title (en)
SURGICAL ASSISTANCE SYSTEM WITH IMPROVED REGISTRATION, AND REGISTRATION METHOD

Title (de)
CHIRURGISCHES ASSISTENZSYSTEM MIT VERBESSERTER REGISTRIERUNG UND REGISTRIERVERFAHREN

Title (fr)
SYSTÈME D'ASSISTANCE CHIRURGICALE À ENREGISTREMENT AMÉLIORÉ ET PROCÉDÉ D'ENREGISTREMENT

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Abstract (en)
[origin: WO2023275158A1] The invention relates to a surgical assistance system (1) for use in a surgical intervention, having: at least one imaging 3D recording device which is provided for and adapted so as to generate a three-dimensional intracorporeal recording (IA) of a patient (P); a tracking system (14) which is provided for and adapted so as to detect and track at least one surgical intervention region of the patient (P); a data providing unit (10) which is adapted so as to provide recorded digital 3D data (3DA) of the patient (P); and a control unit (12) which is adapted so as to process the three-dimensional intracorporeal recording (IA), the data of the tracking system (14), and the provided recorded 3D data (3DA), wherein the surgical assistance system (1) is adapted so as to register the recorded 3D data (3DA) onto an outer surface of the patient (P) as a first registration; and the control unit (12) is adapted so as to determine at least one landmark and/or a surface and/or a three-dimensional volume of an intracorporeal structure in the form of an intracorporeal reference from the three-dimensional intracorporeal recording (IA) and/or the recorded 3D data (3DA) and register the recorded 3D data (3DA) on the intracorporeal structure of the patient (P) detected as a three-dimensional intracorporeal recording (IA) in the form of a second registration on the basis of the first registration and on the basis of the determined intracorporeal reference. The invention also relates to a registration method and to a computer-readable storage means.

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