P3333.2.4

Submitter Email: ylm2103@gmail.com
Type of Project: Modify Existing Approved PAR
PAR Request Date: 19-Dec-2016
PAR Approval Date: 17-Feb-2017
PAR Expiration Date: 31-Dec-2018
Status: Modification to a Previously Approved PAR
Root PAR: P3333.2.4 **Approved on:** 27-Mar-2014

1.1 Project Number: P3333.2.4
1.2 Type of Document: Standard
1.3 Life Cycle: Full Use

2.1 Title: Standard for Three-Dimensional (3D) Medical Simulation

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3.1 Working Group: 3D Based Medical Application Working group (EMB/Stds Com/3333.2)
Contact Information for Working Group Chair
Name: Young Lae Moon
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Contact Information for Working Group Vice-Chair
None

3.2 Sponsoring Society and Committee: IEEE Engineering in Medicine and Biology Society/Standards Committee (EMB/Stds Com)
Contact Information for Sponsor Chair
Name: Carole Carey
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Contact Information for Standards Representative
None

3.3 Joint Sponsor: IEEE Computer Society/Standards Activities Board (C/SAB)
Contact Information for Sponsor Chair
Name: p eastman
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4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 12/2017
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 10/2018

5.1 Approximate number of people expected to be actively involved in the development of this project: 40
5.2 Scope: This standard discusses the simulation of the movement of joints and subsequent changes of skin, muscle, and neighboring structures. It defines joint range of motion, movement, and structure of skeleton for rigging work. Additionally, it reviews simulation devices such as haptic devices or software and hardware based on reality augmented equipment.

5.3 Is the completion of this standard dependent upon the completion of another standard: No
5.4 Purpose: The purpose of this document is the standardization of three-dimensional medical simulations, which will help device development and related research.

5.5 Need for the Project: To make a medical plan or to perform surgery, virtual practice using simulation is necessary. However, there are no rules of rigging method, joint range of motion, principles of movement, and so on. Recently, 3D medical simulation has been trying by

different methods depending on researchers or research institutes, it makes different results. Therefore, global standard medical 3D simulation is necessary based on knowledge of medicine, engineering, and other related fields.

5.6 Stakeholders for the Standard: Medical practitioner
Health care manager
Medical researcher
Medical device developer
Medical device manufacturer
Technical expert
3D product manufacturer

Intellectual Property
6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No
6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

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7.1 Are there other standards or projects with a similar scope?: No
7.2 Joint Development
Is it the intent to develop this document jointly with another organization?: No

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8.1 Additional Explanatory Notes: A modified PAR is submitted to update primary sponsor as IEEE Engineering in Medicine and Biology Society/Standards Committee (EMB/Stds Com) and joint sponsor as IEEE Computer Society/Standards Activities Board (C/SAB).