RCB24

3D Printing and 3D Modeling with Free and Open-Source Software (Hands-on)

Monday, Nov. 30 2:30PM - 4:00PM Location: S401CD

IN

AMA PRA Category 1 Credits ™: 1.50
ARRT Category A+ Credits: 1.50

Participants
Michael W. Itagaki, MD, MBA, Seattle, WA (*Presenter*) Owner, Embodi3D, LLC
Tatiana Kelil, MD, Boston, MA (*Presenter*) Nothing to Disclose
Beth A. Ripley, MD, PhD, Boston, MA (*Presenter*) Nothing to Disclose

LEARNING OBJECTIVES

1) To become familiar with the steps of converting a medical imaging scan in standard Digital Imaging and Communications in Medicine (DICOM) format into a 3D printable medical model. 2) to obtain hands-on experience using free, open-source software packages to perform each step.

ABSTRACT

This presentation will provide hands-on training for converting a medical imaging scan into a 3D printed medical model using free, open-source software. Participants will convert a real computed tomography image data set in Digital Imaging and Communications in Medicine (DICOM) format to stereolithography (STL) file format using the open-source software package 3D Slicer. Participants will then further manipulation the STL file in preparation for 3D printing using the open-source software package Blender. By the end of the session participants should have a medical model that is 3D printable. Additional free learning resources for more advanced medical 3D printing will be provided. Techniques and software packages discussed will work on Windows, Macintosh, and Linux platforms.

Active Handout:Michael Ward Itagaki

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