Czech Technical University in Prague Faculty of Electrical Engineering

Department of Cybernetics

DIPLOMA THESIS ASSIGNMENT

Student: Bc. Michal Šmrha

Study programme: Biomedical Engineering and Informatics

Specialisation: Biomedical Informatics

Title of Diploma Thesis: 3D Atlas of Human Bones

Guidelines:

- 1. Perform an analysis of the current solution of the 3D bone atlas. Identify possible improvements.
- 2. Perform a review of relevant technologies.
- 3. Based on the previous analysis design a new version of the atlas.
- 4. Consult the design with a medical expert.
- 5. Implement the atlas according to the design.
- 6. Verify and test the functionality of the implementation.
- 7. In case of time reserve, perform testing at the medical faculty.

Bibliography/Sources:

- [1] WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) Paperback July 19, 2013 by Kouichi Matsuda (Author), Rodger Lea (Author) ISBN-13: 978-0321902924
- [2] Professional ASP.NET MVC 5 Paperback August 4, 2014 by Jon Galloway (Author), Brad Wilson (Author), K. Scott Allen (Author), David Matson (Author) 4 customer reviews ISBN-13: 978-1118794753
- [3] Systems Analysis and Design with UML Hardcover February 1, 2012 by Alan Dennis (Author), Barbara Haley Wixom (Author), David Tegarden (Author) 15 customer reviews ISBN-13: 978-1118037423

Diploma Thesis Supervisor: Ing. Miroslav Burša, Ph.D.

Valid until: the end of the winter semester of academic year 2015/2016

L.S.

doc. Dr. Ing. Jan Kybic Head of Department

prof. Ing. Pavel Ripka, CSc.

Dean