



University of Groningen

## Application of cone beam computed tomography in facial imaging science

Fourie, Zacharias

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version Publisher's PDF, also known as Version of record

Publication date: 2011

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA): Fourie, Z. (2011). Application of cone beam computed tomography in facial imaging science. [S.n.].

Copyright Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): http://www.rug.nl/research/portal. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Centrale U Medische M Bibliotheek C Groningen G APPLICATI

STELLINGEN behorende bij het Proefschrift:

# APPLICATION OF CONE BEAM COMPUTED TOMOGRAPHY IN FACIAL IMAGING SCIENCE

### Zacharias Fourie Groningen, 26 september 2011

- Producing 3D surface models from Cone beam computerized tomography (CBCT) datasets is still less accurate than the reality when using threshold based methods. Differences in the segmentation process resulted in significant clinical differences between the measurements. (*This* thesis)
- The commercially segmented surface models were more accurate than the experienced clinician's segmented surface models. However, equal quality may also be reached by a clinician if sufficient training and time is taken to segment a CBCT surface model. (*This thesis*)
- 3. Because CBCT images are often used for pre-surgical planning, the accuracy is of utmost importance. (*This thesis*)
- 4. There are clear potential benefits of using 3D measurements appose to direct measurements in the assessment of facial deformities. Measurements recorded by 3D systems appeared to be both sufficiently accurate and reliable enough for research and clinical use. (*This thesis*)
- The soft tissue measurements on surface models derived from CBCT are reliable and accurate. Existing CBCT images can be used to derive accurate measurements for establishing soft tissue thickness databases of different populations. (*This thesis*)
- 6. All children are artists. The problem is how to remain an artist once he grows up. (Pablo Picasso)
- 7. A person who won't read has no advantage over one who can't read. (Mark Twain)
- 8. A man is but the product of his thoughts. What he thinks, he becomes. (Mohandas Gandhi)
- 9. A successful man is one who makes more money than his wife can spend. A successful woman is one who can find such a man. (*Lana Turner*)
- 10. Education without values, as useful as it is, seems rather to make man a more clever devil. (C.S. Lewis)
- 11. Work as if you were to live a hundred years. Pray as if you were to die tomorrow. (Benjamin Franklin)
- 12. The more I practice, the luckier I get. (Gary Player)