

ALL THE 4D4ALL THESIS

PhD

2024-2027

Mengdi Lu (PHD candidate), Title: **“Using VR application and 4D scanning for neurorehabilitation platform”**, REVAKI, University of Antwerp.

Bart Eeckhau (PhD candidate), Title: **“Comparative study of the mechanism of action of Dry Needling and Botulinum Toxin type A as a treatment for lower limb post-stroke spasticity: a proof of concept controlled trial”**, REVAKI, University of Antwerp.

2024-2025

Estela Perez Luque, Title: **“Human Motion Prediction for Automotive Ergonomics Design”**.
University of Skovde, Sweden,

BSc-MSc

2024-2026

Mirte Stessel, Emma Van den Hoek, Femke Van Orden, Title: **“How accurate are 3D and 4D digital human models generated using smartphone compared to traditional anthropometric methods: a systematic review”**, University of Antwerp, REVAKI.

Nouran Khafaga, Muhammed Ubaidullah Khan, Muhammed Faizan Khan, Title: **“A systematic review of teh accuracy, validity and reliability, of markerless versus marked based 3D motion capture for industrial ergonomics risk analysis”**, University of Antwerp, REVAKI.

Xian Maes, Yassier El Yafchi, Quinte Geldolf, Title: **“Accuracy, validity and reliability of portable force plate for measuring jump performance and maximum isometric force: a systematic review and meta-analysis”**, University of Antwerp, REVAKI.

Daan Animashaun, Niels Oeyen, Tuur Stienaers, Title: **“Enhancing cyclist ergonomics through 3D-4D biomechanical analysis: a systematic reveiw and meta-analysis”**, University of Antwerp, REVAKI.

Ayesha Roche, Ruben Van Der Berg, Isha Van Goethem, Title: **“The efficacy of 3D-4D DHM in improving body image perception”**, University of Antwerp, REVAKI.

2024-2025

Roberto Sarachetti and Delia Trabuio, Title: **“Design a pill dispenser for improving therapeutical adhence for people with dementia”**, UNIFE, (Italy) and University of Antwerp.

Valentina Dal Corso, Matteo Trabucco, Title: **“Design a wearable MOCAP to increase awareness in Skiers”**, UNIFE, (Italy) and University of Antwerp.

Eugenia Fontinovo, Title: **“Ergonomic analysis of the workers' movement in industry, with the experimental comparison between 4D scanning system and inertial measurement unit device, to reduce the risk of musculoskeletal disorders.”**, UNIVPM, (Italy) and University of Antwerp.

2023-2025

Nazarahari Hoda, Inva Gjeleshi, Maria Maryam, Title: **“4D Digital Human Modeling in VR for medical applications and simulations”**, University of Antwerp, REVAKI.

Mannaert Stien, De Block Ruben, Callaerts Yana, Title: **“De ideale houding op de fiets”**, University of Antwerp, REVAKI

Naalden Annelieke, Laermans Eline, Alex Dens, Title: **“Study new protocols and algorithms in biomechanics for measuring spatiotemporal parameters of gait using innovative photogrammetric”**, University of Antwerp, REVAKI.

Van Nieuwburg Eline, Gaitanaris, Ilias, Mavrou Maria, Title: **“Study new protocols and algorithms for measuring posturography (e.g., balance control), spine deformities (scoliosis, kyphosis, lordosis) using innovative photogrammetric 4D scanning techniques”**, University of Antwerp. Antwerp, REVAKI.

Van Laerhoven Charlotte, Jansen Lynn, Van Es Laura, Title: **“Study the effect of music in neurological disorders using wearable devices”**, University of Antwerp, REVAKI.

2023-2024

Nourhane Nader, Title: **“Preliminary design and ergonomic assessment of smart garments for astronauts'health monitoring during intravehicular activities”**, Aereospace Engineering, Sapienza, Italy

Sara Meletani, Title: **“Comparison between the use of 4D optoelectronic stereophotogrammetry wearable inertial measurement systems in the reconstruction of joint kinematics and spatiotemporal parameters during gait in healthy subjects”**, UNIVPM (Italy) and University of Antwerp.

2022-2024

Duco van der Wolde, Brent Koks, Rik Kusters, Title: **“Evaluation of the effect of using the Kinesiotape applications using 4D Digital Human Modelling”**, University of Antwerp, Medicine.

Eveline Abts, Cas Van Bocxlaer, Maxime Van den Bussche, Title: **“The use of 4D scanning in gait analysis”**, University of Antwerp, REVAKI.

Liam Van Hoof, Kiara de Backer, Maxim Homblé, Title: **“The interaction between balance and gait”**, University of Antwerp, REVAKI.

Dellaert Lianne, Meeuwssen Lien, Staeljanssens Ellen, Title: **“The difference in gait pattern between obese and healthy body weighted adults assessed with 3D gait analysis”**, University of Antwerp, REVAKI.

2021-2023

Gitte Van Cleemput, Zala Van Dyck, Véronique Declercq, Title: **“The effects of rhythmic auditory stimulation on the rehabilitation of stroke patient using wearable devices”**.