IBV launches MOVE 4D, a new generation of body motion scanner

3DBODY.TECH Conference & Expo will be the launching pad for an innovative high-speed 4D body scanner developed by Instituto de Biomecánica (IBV)

Measurements or 3D surfaces of the body captured, typically in a single static posture, are used to develop different types of wearable products, such as garments, helmets, orthotic devices, etc. However, the use of most of these products also involves human motion producing a change in posture, measurements and shape of the body.

On the other hand, current gold standards in human movement analysis are based on marker photogrammetric systems, which offer an affordable simplification of body segments. Doubtlessly, these approaches have been an excellent method for assessing joints biomechanics, calculating limbs movements or quantifying musculoskeletal performance.

But, what happen with soft tissues as how body masses move and influence dynamic interaction? New approaches based on mixing 3D body shape digitalization and innovative techniques in movement analysis are working together in the next generation of 4D scanners.

In this sense, **Instituto de Biomecánica (IBV)** presents a high-speed 4D body scanner, **MOVE 4D**, the new generation of automatic and markerless 3D human body motion scanner.

MOVE 4D is a revolutionary concept of scanner for human digitalization. It is a modular photogrammetry-based 4D capture and analysis system, which consists of a set of synchronised scanning modules and a processing software.

Markerless, ultra fast, automatic processing and easily synchronized

MOVE 4D allows the automatic markerless 3D acquisition of body shapes in movement and artefact-free watertight mesh reconstruction with anatomical point-to-point correspondence interframe. With an ultra-high spatial and temporal resolution up to 180 fps, the scanner provides a 3D texturized reconstruction with excellent reality results.

Beside this, MOVE 4D's automatic processing software is relied on data-driven body shape & posture models, enabling the expansion of the state-of-the-art in human assessment research by means of the combination of digital anthropometric reconstructions with the highest standards of human movement analysis.

Finally, this technology is ready to be easily synchronized with other biomechanical equipment. Its configuration can be customized depending on applications and it uses technology in continuous evolution as a result of an intense technological and scientific activity.

Multiple applications

This revolutionary concept of scanner allows multiple applications, such as research in sports performance sciences, biomechanics, ergonomics and medical sciences, or industry applications in the field of products and services design, data economy, digital production and entertainment, among others.

In the words of David Garrido, head of Innovation in Biomechanical Assessment at IBV, "*as a result of the huge experience of IBV in Anthropometry and Human Movement Analysis, MOVE 4D represents a step forward in the field of body shape digitalization, ergonomics and biomechanics*".

3DBODY.TECH Conference & Expo will be the launching pad of this innovative product. All professionals active in the specific sector of 3D body scanning & processing will be able to check a demo of MOVE 4D in the technical exhibition that takes place in paralell to the conference.

This is the world's largest meeting entirely dedicated to 3D body scanning and processing technologies and it will take place on 22-23 October 2019, in Lugano (Switzerland).

About IBV

IBV is a leading company in 3D body scanning and human modelling and provides advanced 3D data treatment solutions (accurate and automated creation of 3D body avatars from 3D raw scans, 2D pictures or 1D measurements; 3D databases harmonisation tools, virtual measuring tape or shape analysis tools) and smartphone 3D scanning technologies to support innovative business models based on user anthropometry.

More information at: anthropometry.ibv.org

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