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Assessment of Swagger Perception by Linear Shape Variation on the Static Phenomenon

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Abstract: Moving technology is to consist of the moving status of the Floating Perception Modulus (FPM) and Liquid Perception Modulus (LPM) on the swagger moving shape. Condition of the perception modulus by the swagger moving shape is organized the judder moving system. As to define the moving of signal on the matter we compared a swagger value of the floating perception modulus on the floating state. The concept of liquid perception modulus was analyzed the reference of liquid perception signal and liquid perception signal by the liquid state. For detecting a variation of the FPM-LPM of the maximum and average in terms of the moving shape and swagger moving value that was a swagger value of the top variation of the Top-$\varepsilon_{MAX\text{-}AVG}$ with 5.92±0.59 units that was a swagger value of the peripheral variation of the Per-$\varepsilon_{MAX\text{-}AVG}$ with 1.77±0.01 units that was a swagger value of the limbus variation of the Lim-$\varepsilon_{MAX\text{-}AVG}$ with 0.85±0.17 units that was a swagger value of the center variation of the Cen-$\varepsilon_{MAX\text{-}AVG}$ with 0.13±0.01 units.

Key words: Moving technology, floating perception, liquid perception, perception modulus system, variation

INTRODUCTION

Linear shape of perception system is proposed a concept of a floating material that allows reducing variation of structures significantly more than a liquid material. Analyses regarding two or more masses moving in interactive directions is not easy matter of numerous. The system is studied statically states of a multi-span moving on which non-inertial loads were going with constant and varying speeds (Wu and Dai, 1987). A floating material layer that turns into the main structure is always expected to be possibly the dissipating material. In many cases, the simple use of floating layers is provided to support sufficient quality. The liquid material layer is focused our attention on materials with multi-direction of dependent velocity (Qiu *et al*., 2016a, b). The layer of moving material is proposed a special material that is resistant to deflections and to the rate of deformation. The material exhibits properties defined by general parameters which are going to be determined to obtain significantly floating perception and liquid perception in the materials. The parameter of the material is selected that preserve possibly low stresses and displacements of the structure. In this study was the item of the floating-liquid technology that was to consist of the moving perception with the swagger moving shape by the condition of the perception modulus. This function was suggested a swagger value of the floating-liquid function by the perception modulus to define a moving data from the basis reference by floating module and liquid module. Also, the judder moving was to assess the capacity of the moving shape with the control degree of perception modulus on the FPM-LPM that was shown the floating and liquid shape by the swagger perception modulus system.

MATERIALS AND METHODS

Sequence control procedure: The Swagger Perception Shape (SPS) is used to show the swagger moving shape on the moving perception system. Swagger is shown the various changes through floating and liquid perception modulus. The swagger perception action is shown to result the parameter of Floating Perception Modulus-Liquid Perception Modulus (FPM-LPM). The FPM-LPM is exhibited with experiment on the different perception of the SPS that is shown in the swagger action and judder moving (Kim, 2011; Kim and Kim, 2015; Kim and Shin, 2017).

The Swagger Perception Shape System (SPSS) was shown the linear shape by the Floating Perception Modulus (FPM). Specification of SPSS was shown the

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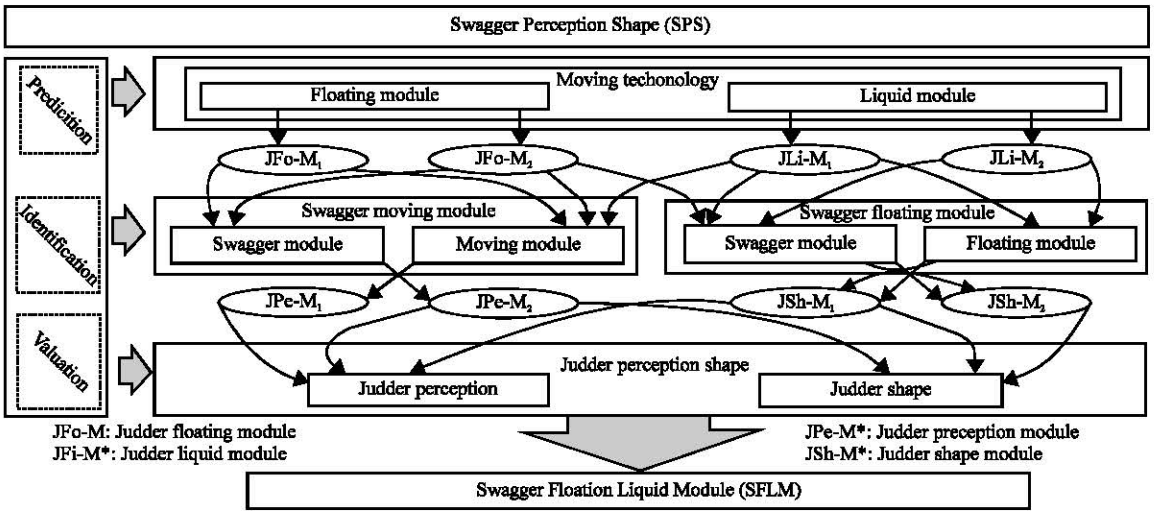

Fig. 1: System block of swagger perception by linear shape on the moving technology

floating-liquid that was similar to a swagger moving by the Moving Technology (MT). The swagger moving was adjusted to control in the judder condition that was incurred by the MT tool. The swagger parameters by SPSS was incurred with moving data by the Swagger Floating Modulus (SFM) and Swagger Liquid Modulus (SLM). The SFM article by SPSS was shown with floating combination of data parameters by the swagger-moving modulus. The SLM article by SPSS was shown with liquid combination of data parameters by swagger-moving modulus. The Judder Swagger Moving (JSM) was estimated a judder perception technology of x-y direction from Center of Axial (COA) on the Swagger Moving (SM) of SPSS. The Swagger Floating Liquid Modulus (SFLM) was made up the Judder Perception (JP) and Judder Shape (JS) on SPSS (Fig. 1).

Multiple alignments of perception shape and its evaluation: The Swagger Floating Liquid Perception (SFLP) was estimated the perception shape system of the Dual Inverted Balance Link Model (DIBLM) by the Center Of Mass (COM) from Center Of Axial (COA) and allows examining floating-liquid moving of balance-control mechanisms. The SFLP of DIBLM ignores the matter weight and the horizontal forces acting on it. The Floating Liquid System (FLS) model applies to quiet stance wherep the vertical sway angle 'y' is small. The different interval range with the swagger-floating-liquid moment of inertia from sway angle is calculation $I\ddot{y}_{sfl}$ that requires:

$$I\ddot{y}_{sfl} = mgh\left(y_{sfl} - y_{esfl}\right) \quad (1)$$

$$Y_{SFIP}(s) = \frac{g/h}{(g/h) - s^2} Y_{esfl}(s) \quad (2)$$

$$\hat{Y}_{esfi}(n) = \frac{T\sqrt{g/h}}{2} e^{-|n/T|\sqrt{g/h}} y_{esfl}(n) \quad (3)$$

Where:

$I = mh^2$ = The matter moving of inertia
m = The matter moment of the COM
h = The matter height of the COM
sfl = The gravitational acceleration
y_{sfl} and $\ddot{y}_{sfl}$ = The swagger-floating-liquid COM displacement and acceleration
y_{csfl} = The swagger-floating-liquid COM displacement (Winter, 2004)

Laplace-transforming (Eq. 1) gives (Tossavainen *et al*., 2006). Partial fractioning, convoluting (*) and discretizing Eq. 2 with respect to time gives (Tossavainen *et al*., 2006). Where T is the sampling interval. The force platform records the 'sfl' of COM excursions y_{csfl} (n).

RESULTS AND DISCUSSION

Properties of the sequence selection: The experiment of SPS-shape was created the SPS-$\varepsilon_{MAX\text{-}MIN}$, SPS-$\varepsilon_{AVG\text{-}MAX\text{-}MIN}$ and SPS-$\varepsilon_{MAX\text{-}AVG\text{-}MIN}$ database which is collected from the swagger moving shape by the SPS action (Table 1). Swagger moving shape data are used MATLAB 6.1 for the calculations.

Improvements of multiple sequence selections: Swagger Perception Shape (SPS) is to be verified the moving status of the Swagger Floating Modulus (SFM) and Swagger Liquid Modulus (SLM) on the Perception Technology (PT) condition.

Table 1: Average of the swagger wave shapes: the top FPM-LPM (SPS-Topε_{MAX-AV}), peripheral FPM-LPM (SPS-Perε_{MAX-AV}), limbus FPM-LPM (SPS-Limε_{MAX-AV}) and center FPM-LPM (SPS-Cenε_{MAX-AV}) condition

Average ε	Top $\varepsilon_{Avg-FPM-LPM}$	Per $\varepsilon_{Avg-FPM-LPM}$	Lim $\varepsilon_{Avg-FPM-LPM}$	Cen$\varepsilon_{Avg-FPM-LPM}$
SPS-ε_{MAX}	18.58±1.62	7.85±0.15	2.85±0.46	0.50±0.05
SPS-ε_{MIN}	6.74±0.44	4.30±0.12	1.15±0.13	0.23±0.02
SPS-$\varepsilon_{MAX-AVG}$	5.92±0.59	1.77±0.01	0.85±0.17	0.13±0.01

PT was to define the fine objects of the Swagger Floating Modulus (SFM) on the SPS-shape. And, PT was to maintain the equivalent things of the Swagger Liquid Modulus (SLM) on the SPS-shape. The results are to be verified the Swagger Perception Shape System (SPSS) in accordance with the parameter of Floating Perception Modulus (FPM). The experiment is incurred outstanding an alteration of Liquid Perception Modulus (LPM) is shown in the judder perception shape action.

Comparison database of FPM-LPM on the SPS-$\varepsilon_{MAX-MIN}$, SPS-$\varepsilon_{AVG-MAX-MIN}$ and SPS-$\varepsilon_{MAX-AVG-MIN}$: Swagger perception shape (SPS) on the Top (Top-ε) condition was to show a Floating Perception Modulus-Liquid Perception Modulus (FPM-LPM) value for the SPS-Top-$\varepsilon_{MAX-MIN}$, SPS-Top-$\varepsilon_{AVG-MAX-MIN}$ and SPS-Top-$\varepsilon_{MAX-AVG-MIN}$ (Fig. 2). The large swagger of the SPS-Top-$\varepsilon_{MAX-MIN}$ was to the normal direction in the SPSS. Furthermore, SPS action of top FPM-LPM was the small swagger to between the SPS-Top-$\varepsilon_{AVG-MAX-MIN}$ and SPS-Top-$\varepsilon_{MAX-AVG-MIN}$ with the same and opposite direction in the SPSS. In the SPS action of top FPM-LPM was come into sight a slightly large swagger at 11.84±1.18 unit with SPS-Top-$\varepsilon_{MAX-MIN}$ of the swagger wave shape. In the top FPM-LPM of SPS action was come into sight a very small swagger at 0.81± (-0.15) unit with SPS-Top-$\varepsilon_{AVG-MAX-MIN}$ in the SPSS. The outstanding this action of swagger wave shape in the top FPM-LPM was show that a swagger influence was occurred the opposite direction in the SPSS. In the swagger of SPS action was come into sight a very small swagger at (-0.817)±0.15 unit with SPS-Top-$\varepsilon_{MAX-AVG-MIN}$. The judder phenomenon of the top FPM-LPM was incurred outstanding to suggest the SPSS by the judder wave in the SPS action direction. Swagger Perception Shape (SPS) of peripheral (Per-ε) condition was to show a floating perception modulus-liquid perception modulus (FPM-LPM) value for the SPS-Per-$\varepsilon_{MAX-MIN}$, SPS-Per-$\varepsilon_{AVG-MAX-MIN}$ and SPS-Per-$\varepsilon_{MAX-AVG-MIN}$ (Fig. 2). SPS action of peripheral FPM-LPM was the some swagger to difference between SPS-Per-$\varepsilon_{MAX-MIN}$ and SPS-Per-$\varepsilon_{AVG-MAX-MIN}$ with the same direction in the SPSS. Whereas, the SPS action of peripheral FPM-LPM was come into sight very small swagger at SPS-Per-$\varepsilon_{MAX-AVG-MIN}$ of the swagger wave shapes on the normal and opposite direction in the SPSS. SPS action of peripheral FPM-LPM was come into sight small swagger at 3.55±0.03 unit with SPS-Per-$\varepsilon_{MAX-MIN}$ of the swagger wave shape. In the peripheral FPM-LPM of SPS action was come into sight slightly small at 2.52±0.11 unit with SPS-Per-$\varepsilon_{AVG-MAX-MIN}$ in the SPSS. The outstanding this action of swagger wave shape in the peripheral FPM-LPM was show that a swagger was occurred the opposite direction in the SPSS. But, it was a minute role in the swagger action of a peripheral moving. In the swagger of SPS action was come into sight little swagger at (-2.53)±(-0.11) unit with SPS-Per-$\varepsilon_{MAX-AVG-MIN}$ on the same direction. The peripheral FPM-LPM was come into sight to suggest a very more variation of judder moving than the top FPM-LPM in the SPS action direction. Swagger Perception Shape (SPS) of limbus (Lim-ε) condition was to show a floating perception modulus-liquid perception modulus (FPM-LPM) value for the SPS-Lim-$\varepsilon_{MAX-MIN}$, SPS-Lim-$\varepsilon_{AVG-MAX-MIN}$ and SPS-Lim-$\varepsilon_{MAX-AVG-MIN}$ (Fig. 2). SPS action of limbus FPM-LPM was come into sight small swagger at SPS-Lim-$\varepsilon_{MAX-MIN}$ and SPS-Lim-$\varepsilon_{AVG-MAX-MIN}$ of the swagger wave shape on the normal direction in the SPSS. Whereas, differently the very small swagger value of SPS-Lim-$\varepsilon_{MAX-AVG-MIN}$ was to the opposite direction in the SPSS. SPS action of limbus FPM-LPM was come into sight slightly small swagger at 1.70±0.33 unit with SPS-Lim-$\varepsilon_{MAX-MIN}$ of the swagger wave shape. In the limbus FPM-LPM of SPS action was come into sight very little at 0.30±(-0.04) unit with SPS-Lim-$\varepsilon_{AVG-MAX-MIN}$ on the normal direction in the SPSS. The outstanding, this action of the swagger wave shape in the limbus FPM-LPM was show that a swagger was occurred the and opposite direction in the SPSS. But, it was an outstanding role in the swagger action of a limbus moving. In the swagger of SPS action was come into sight very small swagger at (-0.29)±0.03 unit with SPS-Lim-$\varepsilon_{MAX-AVG-MIN}$. The limbus FPM-LPM was incurred outstanding to suggest the SPSS by the judder moving at the SPS action. Swagger Perception Shape (SPS) of center (Cen-ε) condition was to show a Floating Perception Modulus-Liquid Perception Modulus (FPM-LPM) value for the SPS-Cen-$\varepsilon_{MAX-MIN}$, SPS-Cen-$\varepsilon_{AVG-MAX-MIN}$ and SPS-Cen-$\varepsilon_{MAX-AVG-MIN}$ (Fig. 2). SPS action of center FPM-LPM was come into sight small swagger at SPS-Cen-$\varepsilon_{MAX-MIN}$ and SPS-Cen-$\varepsilon_{AVG-MAX-MIN}$ of the swagger wave shape on the normal direction in the SPSS. Whereas, differently the small swagger value of SPS-Cen-$\varepsilon_{MAX-AVG-MIN}$ was to the opposite direction in the SPSS. SPS action of center FPM-LPM was come into sight very small swagger at 0.27±0.02 unit with SPS-Cen-$\varepsilon_{MAX-MIN}$ of the swagger wave shape. In the center FPM-LPM of

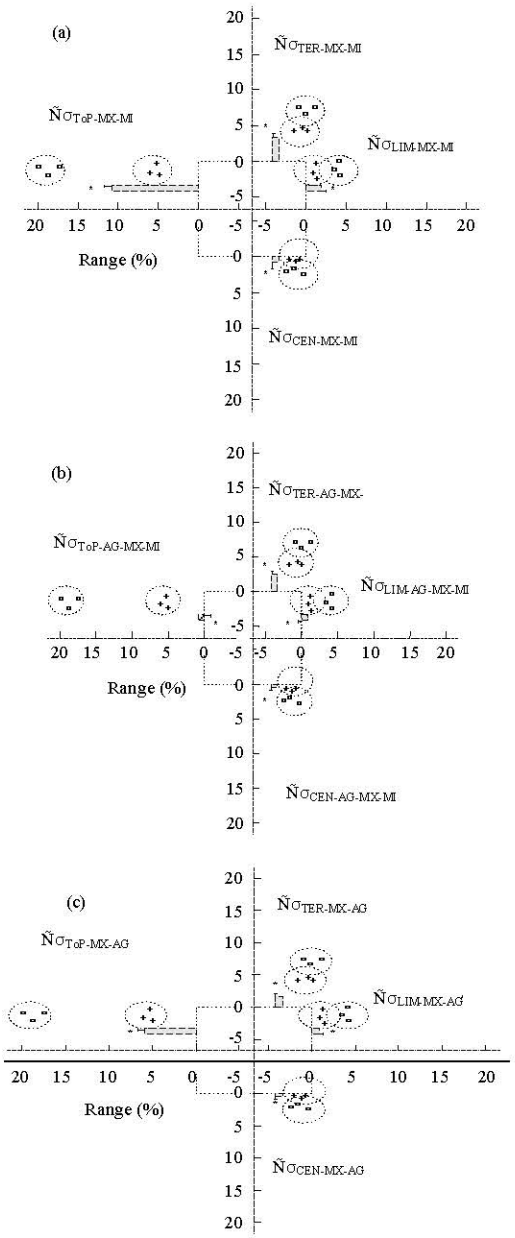

Fig. 2: SPS-function of the data on the swagger wave condition for action: for activity: parameter of the SPS-Top-ε_{AVG}, SPS-Per-ε_{AVG}, SPS-Lim-ε_{AVG} and SPS-Cen-ε_{AVG}

SPS action was come into sight very little at 0.10±0.01 unit with SPS-Cen-$\varepsilon_{AVG\text{-}MAX\text{-}MIN}$ on the normal direction in the SPSS. The outstanding this action of the swagger wave shape in the center FPM-LPM was show that a swagger was occurred the opposite direction in the SPSS. But, it was an outstanding role in the swagger action of a center moving. In the swagger of SPS action was come into sightvery small swagger at (-0.09)±(-0.01) unit with SPS-Cen-$\varepsilon_{MAX\text{-}AVG\text{-}MIN}$ on the opposite direction in the SPSS. The center FPM-LPM was incurred slightly to suggest the SPSS by the judder moving at the SPS action.

CONCLUSION

Judder perception system was adjusted of a shape by the special moving and was included a swagger data of judder moving modulus.

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REFERENCES

Kim, J.L. and K.D. Kim, 2015. Presentation of budge sonance with small action on the body motion. Intl. J. Adv. Smart Convergence, 4: 35-39.

Kim, J.L. and M.S. Shin, 2017. Study of the dangle effect function on the matter. Adv. Appl. Convergence Lett., 9: 46-48.

Kim, J.L., 2011. Analysis of posture balance system of using multi-parameter after exercising. J. Inst. Internet Broadcasting Commun., 11: 145-150.

Qiu, Y., I. Vlassiouk, P. Hinkle, M.M.E. Toimil and A.J. Levine *et al*., 2016a. Role of particle focusing in resistive-pulse technique: Direction-dependent velocity in micropores. ACS. Nano, 10: 3509-3517.

Qiu, Y., I. Vlassiouk, Y. Chen and Z.S. Siwy, 2016b. Direction dependence of resistive-pulse amplitude in conically shaped mesopores. Anal. Chem., 88: 4917-4925.

Tossavainen, T., E. Toppila, I. Pyykko, P.M. Forsman and M. Juhola *et al*., 2006. Virtual reality in posturography. IEEE. Trans. Inf. Technol. Biomed., 10: 282-292.

Winter, D., 2004. Biomechanics and Motor Control of Human Movement. 3rd Edn., Wiley, New York, USA., ISBN:9780471449898, Pages: 344.

Wu, J.S. and C.W. Dai, 1987. Dynamic responses of multispan nonuniform beam due to moving loads. J. Struct. Eng., 113: 458-474.