Fusion of Tire Lateral Force Estimation and Sliding Mode Control for Improved Vehicle Handling

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(Received date ; Revised date ; Accepted date ) \* Please leave blank

**ABSTRACT−**Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here.Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. Type the abstract here. [Capital letter at the beginning of each sentence, put a period at the end, Please write in 100 ~ 200 words, Times New Roman, 9pt]

**KEY WORDS** : Type key words here, Type key words here, Type key words here, Type key words here [Capital letter at the beginning of each keyword, Do not put a period at the end, Times New Roman, 9pt]

**[Main Body : Times New Roman, 10pt]**

nomenclature

[All should have small letters, Times New Roman, 10pt]

A : area, m2

subscripts

|  |
| --- |
| [All should have small letters, Times New Roman, 10pt]  A,B,C,P : nodal point |
| \* *Corresponding author*. e-mail: type e-mail address [Official E-mail Address] |

1. INTRODUCTION [All should have capital letters, Times New Roman, 10pt]

The manuscript elements have been formatted for you through the “styles” capability of the software. To use the styles, select the text you wish to apply a style to, then, using the mouse, point to the style box on the toolbar. Click once on the downward pointing arrow to the right, and select the appropriate style.

2. Planar lateral dynamics model

This study utilizes planar lateral dynamics model as a vehicle motion model for estimating lateral force of each tire.

2.1. Vertical Force Calculation

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| SPCEN | 208 | 350 | 0.48 | 0.140 | 0.080 | 0.007 | 0.31 |
| 60TRIP | 432 | 800 | 0.59 | 0.075 | 0.030 | 0.012 | 0.55 |
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5. CONCLUSION

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**ACKNOWLEDGEMENT−**This work was supported by Institute of Information & communications Technology Planning & Evaluation (IITP) grant funded by the Korea government (MSIT) (No.2022-0-01053, Development of Network Load Balancing Techniques Based on Multiple Communication/Computing/Storage Resources)

REFERENCES

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