

## **Read me file: implementation of "A new tool for model examination: Estimation of the mediator transfer function between the model and measured signals"**

The codes in this directory implement the demonstration on the demonstration dataset of the study:

Matania O., Zamir O., Bortman J. "A new tool for model examination: Estimation of the mediator transfer function between the model and measured signals", Journal of Sound and Vibration, (2023). <https://doi.org/10.1016/j.jsv.2023.117560>

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## **A new tool for model examination: Estimation of the mediator transfer function between the model and measured signals**

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The demonstration dataset consists of measured signals (see Fig. 5, Fig. 6 and Table 1) and measured transfer function (see Fig. 10).

You can run the codes using Matlab by two steps:

1. Download data.zip file and processed\_data.zip file from:

[https://drive.google.com/drive/folders/17syVgYJh8yAM0Q\\_-ALHQIqCoAvY6kbvq?usp=sharing](https://drive.google.com/drive/folders/17syVgYJh8yAM0Q_-ALHQIqCoAvY6kbvq?usp=sharing)

and extract their data. Set the right path in the main.m file:

```
33 % Set the directory of the data and the processed data
34 data_path = 'D:\data\estm_mediator_tf_between_model_2_measured_sigs\data\';
35 processed_data_path = 'D:\data\estm_mediator_tf_between_model_2_measured_sigs\processed_data\';
```

2. Run main.m file.

You can also set the transfer function number (between 1-24) and the noise level in main.m file:

```
28 % Set transfer function number (1-24) and noise amplitude
29
30 tf_num = 1 ;
31 noise_amp = 0.25 ;
```

You can use the codes and data for any academic purposes; however you are requested to cite:

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