

The project purpose is to perform a sort of identification of system through the construction of the Hankel matrix and then factorizing so as to obtain a realization. Read carefully the paper [1].

- Transform the description of the technique into an algorithm and implement it in a computer.
- Introduce some noise in the model while collecting data.
- Test the computer package on the examples of the paper.
- Write a small report (max. 6 pages) describing the main features. Give the code as an appendix to this report (not counted in the page limit).

References

- [1] B. M. Anderson, F. M. Brasch, and P. V. Lopresti. The Sequential Construction of Minimal Partial Realizations from Finite Input-Output Data. *SIAM J. Control*, 13(3):552–571, 1975.