Errata:
A review on data-driven linear parameter-varying modeling approaches: A high-purity distillation column case study

A. A. Bachnas, R. Tóth, J.H.A. Ludlage and A. Mesbah

I. FOREWORD
This note serves as a correction of typos in the published paper [1]. Despite all the efforts of the authors, such unfortunate mistakes have remained unnoticed till the final printing process. In case of other errors or comments, please do not hesitate to contact the corresponding authors.

II. ERRORS
A. Section 4: LPV identification using the global approach
- Under equation (21), the dimensions of \( \theta \) are incorrectly specified for \( 1 \leq i \leq n_a \). The correct form should read as “... and \( \theta_{1,s} \in \mathbb{R}^{n_Y \times n_Y}, \theta_{n_a+1+j,s} \in \mathbb{R}^{n_Y \times n_U} \) being ...”.
- Under equation (26), the dimensions of \( \theta \) are incorrectly specified. The correct form should read as: \( \theta \in \mathbb{R}^{n_U(n_a+1)(n_{\psi}+1) \times n_Y} \).
- Under equation (27), the dimensions of \( \theta_i \) are incorrectly specified. The correct form should read as: \( \theta_i \in \mathbb{R}^{n_{\psi} \times n_Y} \) for \( i \in I_{n_a} \) and \( \theta_i \in \mathbb{R}^{n_{\psi} \times n_U} \) for \( i \in I_{n_a+1} \).
- Equation (29) should be replaced by:

\[
\text{vec}(\hat{\beta}) = \left( \frac{1}{N} I_{n_Y} \otimes \Omega + \Gamma^{-1} \otimes I_N \right)^{-1} \frac{1}{N} \text{vec}(\hat{Y}), \tag{29}
\]

where \( \otimes \) stands for the Kronecker product and \( \text{vec} \) is column-wise vectorization of a matrix.

REFERENCES

R. Tóth is with the Control Systems Group, Electrical Engineering Department, Eindhoven University of Technology, P.O. Box 513, 5600 MB Eindhoven, The Netherlands, email: r.toth@tue.nl.