

CURRICULUM VITAE OF Khaled BELARBI

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<https://scholar.google.com/citations?user=N-Hv6TgAAAAJ&hl=fr>

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Educational Profile:

I was born and bred in Constantine, Algeria. I received the “ingenieur” degree from the Ecole Polytechnique of Alger, Algeria, and the MSc. (December 1984) and Ph.D. (June 1988) degrees in automatic control from the University of Manchester Institute of Science and Technology, UMIST, U.K. . The title of my PhD thesis: “Short Term Production Planning for a two-stage manufacturing system”.

Since 2014, I am Professor at Ecole Nationale Polytechnique de Constantine, ENPC, Algeria. Before joining ENPC, I was with the department of electronics Faculty of Technology, University of Constantine.

Scientific Activities

Main teaching : Control systems (Classical Linear, Nonlinear, Optimal);

Occasional teaching: Optimisation, Operation research, Electronics.

Research: Main interests: Fuzzy control, Adaptive control, Predictive Control

Also I spend time studying History of North Africa during Antiquity.

List of Current Research Projects

List of Journal Publications

1. Hamadou, M., Belarbi, K. Design of Fuzzy Observers and Output Feedback Fuzzy Controllers for Takagi–Sugeno Discrete Systems Via the Matrices Norms Approach. *J Control Autom Electr Syst* (2023). <https://doi.org/10.1007/s40313-023-00997-4>
2. Boumaza, H., Belarbi, K. Optimal model predictive control solution approximation using Takagi Sugeno for linear and a class of nonlinear systems. *Int. J. Dynam. Control* **10**, 1265–1278 (2022). <https://doi.org/10.1007/s40435-021-00875-4>.
3. Belarbi, K. On Matrix Norms, Stability and Stabilization of a Class of Discrete Takagi–Sugeno Fuzzy Systems in *IEEE Transactions on Fuzzy Systems*, vol. 27, no. 10, pp. 1999–2008, Oct. 2019,
4. Boulkaibet I., K Belarbi, et al An adaptive fuzzy predictive control of nonlinear processes based on Multi-Kernel least squares support vector regression *Applied Soft Computing*, 73, 572-590, 2018.
5. Bahita, M., Belarbi, K. Fuzzy modelling and model reference neural adaptive control of the concentration in a chemical reactor (CSTR). *AI & Soc* **33**, 189–196 (2018). <https://doi.org/10.1007/s00146-018-0806-z>
6. Bahita M, Belarbi K. Real-time application of a fuzzy adaptive control to one level in a three-tank system. *Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering*. 2018;232(7):845-856. doi:[10.1177/0959651818764205](https://doi.org/10.1177/0959651818764205)
7. Boulkaibet I. K. Belarbi et al. A new TS fuzzy model predictive control for nonlinear processes *Expert Systems with Applications*, 88, 132-151, 2017. <https://doi.org/10.1016/j.eswa.2017.06.039>.
8. Merabti, H. and Belarbi, K. (2017), "Accelerated micro particle swarm optimization for the solution of nonlinear model predictive control", *World Journal of Engineering*, Vol. 14 No. 6, pp. 509-521. <https://doi.org/10.1108/WJE-01-2017-0004>
9. Merabti H., K. Belarbi & B. Bouchemal (2016) Nonlinear predictive control of a mobile robot: a solution using metaheuristics, *Journal of the Chinese Institute of Engineers*, 39:3, 282-290, DOI: [10.1080/02533839.2015.1091276](https://doi.org/10.1080/02533839.2015.1091276)

List of Conference Papers

1. Hamadou M. and K. Belarbi, "An Alternative Stabilization Approach for Delayed Takagi–Sugeno Discrete Fuzzy Systems," *2022 IEEE 21st International Conference on Sciences and Techniques of Automatic Control and Computer Engineering (STA)*, Sousse, Tunisia, 2022, pp. 112-115, doi: 10.1109/STA56120.2022.10019195.
2. Bahita M. and K. Belarbi, "Adaptive Control of Nonaffine Nonlinear Systems by Neural state Feedback," *2019 2nd International Conference on new Trends in Computing Sciences (ICTCS)*, Amman, Jordan, 2019, pp. 1-6, doi: 10.1109/ICTCS.2019.8923118.
3. Merabti, H., Belarbi, K., Bouchachi, I. (2017). Single and Multi Objective Predictive Control of Mobile Robots. In: Chadli, M., Bououden, S., Zelinka, I. (eds) *Recent Advances in Electrical Engineering and Control Applications. ICEECA 2016. Lecture Notes in Electrical Engineering*, vol 411. Springer, Cham. https://doi.org/10.1007/978-3-319-48929-2_6

4. Merabti H., I. Bouchachi and K. Belarbi, "Nonlinear model predictive control of quadcopter," *2015 16th International Conference on Sciences and Techniques of Automatic Control and Computer Engineering (STA)*, Monastir, Tunisia, 2015, pp. 208-211, doi: 10.1109/STA.2015.7505151.
5. Bahita M., K Belarbi Model reference neural-fuzzy adaptive control of the concentration in a chemical reactor (CSTR) IFAC-PapersOnLine Volume 49, Issue 29, 2016, Pages 158-162 <https://doi.org/10.1016/j.ifacol.2016.11.093>

List of Current Doctoral Research Students Supervision

1. Meroua Hamadou
2. Abderaouf Lecheheb