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## Assistant professor

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### Education:

- Ph.D: Electronic Engineering, Faculty of Electronic Engineering, Menoufia University, Egypt, 2015.
- MSc: Electronic Engineering, Faculty of Electronic Engineering, Menoufia University, Egypt, 2011.
- BSc: Electronic Engineering, Faculty of Electronic Engineering, Menoufia University, Egypt, 2007.

### Current Position:

- 2015-Now: Assistant professor at Dept of Industrial Electronics and Control Engineering, Faculty of Electronic Engineering, Menoufia University, Egypt.

### Previous Work Experiences

- 2011-2015: Lecturer, Faculty of Electronic Engineering, Menoufia University, Egypt.
- 2007-2011: Demonstrator, Faculty of Electronic Engineering, Menoufia University, Egypt.

### Research Interest:

- Automatic Control Engineering
- System Modeling.
- Robotics and Mechatronics.
- Artificial Intelligence (Fuzzy Logic, Type-2 Fuzzy Logic, Neural Network, Fuzzy Neural Network and Clustering).
- Applications of artificial intelligence for biomedical systems.
- Applications of artificial intelligence for solar energy systems.

### Recent Publications:

[1] M. El-Bardini, **A. M. El-Nagar** and N. El-Rabaie, "Interval Type-2 Fuzzy Logic Control For Multivariable Anaesthesia System", Journal of Engineering Sciences, Assiut University, Vol. 38, No. 6, PP. 1485-1506, 2010.

- [2] M. El-Bardini, **A. M. El-Nagar**, "Direct Adaptive Interval Type-2 Fuzzy Logic Controller for the Multivariable Anaesthesia System", *Ain Shams Eng. Journal*, Vol. 2, PP. 149-160, 2011.
- [3] **A.M. El-Nagar**, M. El-Bardini and Nabila El-Rabaie, "Intelligent Control for Nonlinear Inverted Pendulum Based on Interval Type-2 Fuzzy PD controller", *Alexandria Engineering Journal*, Vol. 53, No. 1, PP. 23-32, 2014.
- [4] M. El-Bardini and **A.M. El-Nagar**, "Interval Type-2 Fuzzy PID Controller for Uncertain Nonlinear Inverted Pendulum System", *ISA Transaction*, Vol. 53, No. 3, PP. 732-743, 2014.
- [5] **A.M. El-Nagar** and M. El-Bardini, "Practical Implementation for the Interval Type-2 Fuzzy PID Controller using A Low Cost Microcontroller", *Ain Shams Eng. Journal*, Vol. 5, No. 2, PP. 475-787, 2014.
- [6] **A.M. El-Nagar** and M. El-Bardini, "Simplified Interval Type-2 Fuzzy Logic System Based on New Type-reduction Approach", *Journal of Intelligent and Fuzzy Systems*, 2014.
- [7] **A.M. El-Nagar** and M. El-Bardini, "Interval Type-2 Fuzzy Neural Network Controller for a Multivariable Anesthesia System Based On a Hardware-In-The-Loop Simulation", *Artificial Intelligence In Medicine*, Vol. 61, PP. 1-10, 2014.
- [8] **A.M. El-Nagar** and M. El-Bardini, "Practical Realization for the Interval Type-2 Fuzzy PD+I Controller using A Low Cost Microcontroller", *The Arabian Journal for Science and Engineering*, Vol. 39, PP. 6463-6476, 2014.
- [9] M. El-Bardini and **A.M. El-Nagar**, "Interval Type-2 Fuzzy PID Controller: Analytical Structures and Stability Analysis", *The Arabian Journal for Science and Engineering*, Vol. 39, PP. 7443-7458, 2014.
- [10] **A.M. El-Nagar** and M. El-Bardini, "Derivation and Stability Analysis of the Analytical Structures of the Interval Type-2 Fuzzy PID Controller", *Applied Soft Computing*, Vol. 24, PP. 704-716, 2014.
- [11] **A.M. El-Nagar** and M. El-Bardini, "Hardware-in-the-loop simulation of interval type-2 fuzzy PD controller for uncertain non linear system using low cost microcontroller", *Applied Mathematical Modeling*, 2015 (in press).