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| **Name** | **Dr. Abdel-Fattah Heliel, Associate Professor** |
| **Photo** |  |
| **Degree** | Associate Professor of Computer Engineering and Automatic Control |
| **Department** | Electrical Engineering Department |
| **General Specialization** | Computer Engineering and Automatic Control |
| **Specialization** | Soft Computing  |
| **Home page** | www.kfs.edu.eg/ |
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| **Qualifications** | PhD. in "Control Engineering and Robotics " (2002) |
| MSc. in "Control Engineering and Robotics " (1997) |
| Bachelor of Engineering in "Electrical Engineering" (1991) |
| **Skills & Activities** | Optimization, Neuro-Fuzzy, Control Systems Engineering, Fuzzy Control, Fuzzy Logic Control, Electrical Engineering, Evolutionary Computation, Computational Intelligence, Control Theory, Soft Computing, Genetic Algorithm, Artificial Intelligence, Control Systems, Controls, Drives, Modeling, Solar Activity, Electric Motors, Fuzzy Logic, Optical Engineering, Forecasting, Global Optimization, Instrumentation. |
| **Research Experience** |  |
| *April 2013 – present* | **Professor (Associate) and Head of Elect. Eng. Dept.**Faculty of Engineering, Kafrelsheikh University, Kafrelsheikh, Egypt., Electrical Engineering, Kafrelsheikh, Egypt |
| *Aug 2013 – Dec 2014* | **Vice Dean for Graduate Studies & Research**Kafrelsheikh University, Kafrelsheikh, Egypt |
| *Jan 2013 – present* | **Professor (Associate)**Kafrelsheikh University, Department of Electrical EngineeringKafrelsheikh, Egypt |
| *Jul 2009 – Dec 2012* | **Professor (Associate)**National Research Institute of Astronomy and Geophysics, Department of Astronomy, Cairo, Egypt |
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| **Recent Publications** | 1. Attia, Abdel-Fattah, Ragab A. El Sehiemy, and Hany M. Hasanien. "Optimal power flow solution in power systems using a novel Sine-Cosine algorithm." *International Journal of Electrical Power & Energy Systems* 99 (2018): 331-343.
2. El‐Sehiemy, Ragab A., Rizk M. Rizk‐Allah, and Abdel‐Fattah Attia. "Assessment of hurricane versus sine‐cosine optimization algorithms for economic/ecological emissions load dispatch problem." *International Transactions on Electrical Energy Systems* (2018): e2716.
3. Attia, Abdel-Fattah A. "Intelligent controller for tracking a 14-inch Celestron telescope." *Acta Polytechnica* 58.5 (2018): 271-278.
4. Attia, Abdel-Fattah. "Adaptive particle swarm optimization for optimal orbital elements of binary stars." *Experimental Astronomy* 42.3 (2016): 343-359.
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| **Conferences** | 1. Attia, Abdel-Fattah,” Online Tuning Based Fuzzy Logic Controller for Power System Stabilizers”, *19th International Middle East Power Systems Conference* (MEPCON’17), 19-21 December 2017, Cairo, Egypt.
2. Attia, Abdel-Fattah, A. M. Sharaf,” A Novel Multistage Fuzzy Controller for FACTS Stabilization Scheme for SMIB AC System”, *16th International Middle East Power Systems Conference* (MEPCON’14), 23-25 February 2014, Cairo, Egypt.
 |
| **Professional Activities** | * Reviewer, IEEE Transaction Systems, Man and Cybernetics – Part B.
* Reviewer, International Journal of Applied Soft Computing.
* Reviewer, International Journal of Soft Computing.
* Reviewer, Journal of Electrical and Electronics Engineering Research
* Reviewer, Journal of Electric Power Components and Systems
 |
| **Head of Department** | Prof. Dr. Abdel-Fattah Attia |
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| **Subjects of Bachelor** | Control Systems, *Automatic Control (1), Automatic Control (2), Intelligent Control Systems, Guidance and Control, and Artificial Intelligence, Senior projects.* |
| **Subjects of post Graduates** | * *Automatic Control (1),*
* *Automatic Control (2),*
* *Intelligent Control Systems.*
* *Modeling and Simulations and*
* *Intelligent Control Systems*
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| **Intelligent Research System Group (ISRG)** | Dr Abdel-Fattah Attia is the Founder and Head of ISRG Group in 2015 at Electrical Engineering Department, Kafrelsheikh University. The Intelligent Systems Research Group (ISRG) within the Faculty of Engineering consists of five academic staff members, postgraduate (Ph.D., and MSc) students, etc. The main interest of the group is the theoretical and practical aspects of modeling and control of systems, with special emphasis in energy-related fields such as power converters, electromechanical systems and fuel cells. The inherent nonlinearity of most of those applications requires the use of nontrivial techniques such as soft computing algorithms, which the members of the group are advanced practitioners. The group also has expertise in other techniques such as Neuro-Modeling and control and heuristic optimization techniques. These algorithms will be applied in many applications such power systems and renewable energy. The group members have several publications in the area of power energy. The aim of the group is to create real-world intelligent systems applicable in Egypt. |