

## Romanian Academy 2016 “Tudor Tănăsescu” Award Prof. Gheorghe-Daniel ANDREESCU, PhD

The Tudor Tănăsescu award of the Romanian Academy is an annual prize for Excellency in research with publications and citations inside the field of the Information Science and Technology section. Prof. Gheorghe-Daniel Andreescu is the recipient of this award in December 2016 for original research contributions in four scientific papers in the area of advanced automation.

### Short biography

Gheorghe-Daniel Andreescu received the diplomat engineer degree in Applied electronics in 1977 and the PhD degree in Automatic systems (System engineering) in 1999 from the Politehnica University of Timișoara (UPT). He is currently a Professor at the Department of Automation and Applied Informatics in UPT since 2004, PhD adviser in System engineering since 2005, and director of the UPT Doctoral School of Engineering Studies since 2012.

His main research field of interest include: advanced control of ac drives, sensorless control, observers, sliding-mode control, power electronics control, mechatronic systems, greenhouse climate control, modelling and simulation of hearing with cochlear implants, drum boiler-turbine control, real-time implementations.

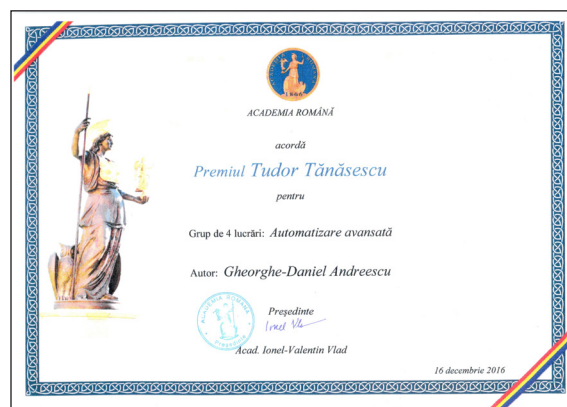
Prof. Andreescu is author or co-author of more than 90 papers in international conference proceedings and international journals, with 16 journal papers indexed in Web of Science including IEEE Transactions on: Industrial Electronics (2), Industry Applications (3), Energy Conversion (2), Power Electronics (2); IET Electric Power Applications (3), Electric Power Components and Systems (3) with an average impact factor  $IF = 2.56$ . He is a Senior Member of IEEE since 2005.

His papers have more than 1100 independent citations from indexed papers, including more than 600 citations in Web of Science (300 in journals with a cumulative impact factor  $IF = 890$  and average  $IF = 2.9$ ), with citations of more than 40 US/EU patents and 80 PhD/MS thesis abroad. His Hirsh index in Web of Science is 11, and in Scopus is 17. Citations include authors from more than 100 universities (20%) in Top 500 World Universities. Prof. Andreescu has been nominated by Thomson Reuters as a Highly Cited Researcher in 2016.

Original contributions in 2014 – papers and citations

For the 2014 year, Prof. Andreescu has more than 60 citations in Web of Science Thomson Reuters.

There are four papers in 2014 with original contributions taking into account for Romanian Academy award, where Prof. Andreescu is coauthor in three different domains of advances automation as following:



A) Advanced sensorless control systems for ac electric drives:

[1] M.C. Ancuti, L. Tutelea, G.-D. Andreescu, F. Blaabjerg, C. Lascu, I. Boldea, Practical wide-speed-range sensorless control system for permanent magnet reluctance synchronous motor drives via active flux model, *Electric Power Components and Systems*, 42(1): 91–102, Jan. 2014.

B) Greenhouse climate control systems:

[2] E.H. Gurban, T.-L. Dragomir, G.-D. Andreescu, Greenhouse climate control enhancement by using genetic algorithms, *Control Engineering and Applied Informatics*, 16(3): 35–45, Sep. 2014.

[3] E.H. Gurban, G.-D. Andreescu, Comparison of modified Smith predictor and PID controller tuned by genetic algorithms for greenhouse climate control, *Proc. IEEE 9th International Symp. on Applied Computational Intelligence and Informatics*, pp. 79–83, May 2014.

C) Modelling and simulation of hearing with cochlear implants with novel auralization method:

[4] A.M. Kuczapski, G.-D. Andreescu, Modelling and simulation of hearing with cochlear implants: A proposed method for better auralization, *Proc. 6th International Workshop Soft Computing Applications (SOFA 2014)*, and in *Soft Computing Applications*, Vol. 357 series *Advances in Intelligent Systems and Computing*, Springer, pp. 753–767, 2015.

Again, I would like to thank to my co-authors for the beautiful working together with the main results given by the above papers. From Politehnica University of Timisoara – greatly thanks to my excellent PhD students E.G. Gurban and A.M. Kuczapski, special thanks to prof. T.L. Dragomir and highly considerations and gratitude to prof. Ion Boldea with his team M.C. Ancuti, L. Tutelea, C. Lascu, and many thanks to prof. F. Blaabjerg from Aalborg University, Denmark.