

**Professor Eng. VALENTINA E. BĂLAȘ, Ph.D., Senior Member of IEEE**

Valentina E. Balas is currently Full Professor at “Aurel Vlaicu” University of Arad, Romania. She is author of more than 200 research papers. Her research interests are in Intelligent Systems, Fuzzy Control, Soft Computing. She is Editor-in Chief to International Journal of Advanced Intelligence Paradigms (IJAIP) and to IJCSE. Dr. Balas is member of EUSFLAT, ACM and a SM IEEE, member in TC – EC and TC-FS (IEEE CIS), TC – SC (IEEE SMCS), Joint Secretary FIM.



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**Interests:**

- Intelligent Systems,
- Soft Computing,
- Fuzzy Systems,
- Interpolative Fuzzy Controllers,
- Smart sensors,
- Electronics

**Selected publications:**

- Balas, V. E.; Ceregan, V.; Codrean, A.; Dragomir, T. L. [Extension of a control structure with PSAIC](#). In *Soft Computing Applications, 2009. SOFA '09. 3rd International Workshop on*, pp. 83-86. IEEE Xplore Digital Library, 2009.
- Popescu, Marius-Constantin; Balas, Valentina; Popescu, Liliana. [Heating monitored and optimal control of electric drives](#). In *Soft Computing Applications, 2009. SOFA '09. 3rd International Workshop on*, pp. 151-156. IEEE Xplore Digital Library, 2009.
- Roopaei, M.; Balas, Valentina Emilia. [Adaptive gain sliding mode control in uncertain MIMO systems](#). *Soft Computing Applications, 2009. SOFA '09. 3rd International Workshop on*, pp. 77 -

82 , 2009.

- Popescu, Marius-Constantin; Balas, Valentina; Popescu, Liliana. [System decentralized for tracking control and data acquisition using for hydroelectric central](#). In *Soft Computing Applications, 2009. SOFA '09. 3rd International Workshop on*, pp. 157 - 162 . IEEE Xplore Digital Library, 2009.
- M. M. Balas, Valentina E. Balas . [Postmodernism and Control Engineering](#). In Seising, Rudolf (eds.), *Studies in Fuzziness and Soft Computing; Views on Fuzzy Sets and Systems from Different Perspective. Philosophy, Logic; Criticism and Applications*, Vol. 243, pp. 377-390. Springer, 2009.
- Noroozi, N. Roopaei, M. Balas, V. E. Tsung-Chih Lin . [Observer-based adaptive variable structure control and synchronization of unknown chaotic systems](#). In IEEE Xplore Digital Library (ed.), *Applied Computational Intelligence and Informatics, 2009. SACI '09. 5th International Symposium on Applied Computational Intelligence and Informatics*, ISBN: 978-1-4244-4477-9, pp. 71-76. 2009.
- Valentina E. Balas, Marius M. Balas. [On the Switching Control](#) . *AIP Conference Proceedings*, Volume 1117, American Institute of Physics, pp. 81-88, 2009.
- Marius M. Balas, Valentina E. Balas. [Monoscopic CCD Cameras as Distance Sensors](#) . In *AIP Conference Proceedings* , Volume 1117 , pp. 67-73 . American Institute of Physics , 2009.
- Balas M. M., Balas V. E. . [The Fuzzy Interpolative Control for Passive Greenhouses](#) . In Horia-Nicolai Teodorescu, Junzo Watada, Lakhmi C. Jain (eds.), : *INTELLIGENT SYSTEMS AND TECHNOLOGIES: METHODS AND APPLICATIONS Book Series: Studies in Computational Intelligence* , Volume: 217 , pp. 219-231. Springer, 2009.
- M. M. Balas, V. E. Balas. [World Knowledge for Control Application by Fuzzy-Interpolative Systems](#). *Int. J. of Computers, Communications & Control*, Vol. III , pp. 28-32, 2008.
- V. E. Balas, M. M. Balas. [Constant Time to Collision Platoons](#). *Int. J. of Computers, Communications & Control*, Vol. III, pp. 33-39, 2008.
- V. E. Balas, M. M. Balas. [Traffic Management by Constant Time to Collision](#). In Ignac Lovrek, Robert J. Howlett and Lakhmi C. Jain (eds.), *Knowledge-Based Intelligent Information and Engineering Systems*, Lecture Notes in Computer Science, p. 658–663. Springer, 2008.
- V. E. Balas, E. Roventa, T. Spircu. [Fusion devices and changes of belief](#). *Journal of Intelligent and Fuzzy Systems*, Volume 19, Number 1 / 2008, pp. 9-18, 2008.
- Balas, Marius M.; Balas, Valentina E. . [World Knowledge for Control Applications](#). In *11th International Conference on Intelligent Engineering Systems, June 29 2007-July 1 2007*, IEEE Xplore Digital Library, pp. 225-228. 2007.
- Timar, D. B.; Balas, V. E.; . [Decision-Making in Human Resources Selection Methodology](#). In *Soft Computing Applications, SOFA 2007. 2nd International Workshop, 21-23 Aug. 2007*, pp. 123-127. IEEE Xplore Digital Library, 2007.
- Balas, M. M. Balas, V. E. Duplaix, J. . [On the Switching Controllers' Issue](#). In *Soft Computing Applications, SOFA 2007. 2nd International Workshop 21-23 Aug. 2007*, pp. 103 - 108. IEEE Xplore Digital Library, 2007.
- Balas, M. M.; Balas, V. E.; Duplaix, J.; . [Optimizing the Distance-Gap between Cars by Constant Time to Collision Planning](#). In *Industrial Electronics, 2007. ISIE 2007. IEEE International Symposium on*, pp. 304 - 309. 2007.
- Balas, V. E., Balas, M. M. . [Driver assisting by inverse time to collision](#). In *2006 World Automation Congress, WAC'06*, art. no. 4259975. IEEE Xplore Digital Library, 2007.
- Balas, M. M., Balas, V. E. . [Some observations on stability of the switching adaptive rule bases](#)

- [of the fuzzy self-adapted interpolative controllers](#). In *2007 ISCIII'07: 3rd International Symposium on Computational Intelligence and Intelligent Informatics; Proceedings*, art. no. 4218396, pp. pp. 63-66. IEEE Xplore Digital Library, 2007.
- Balas, V. E., Balas, M. M. . [Switching adaptive correctors for fuzzy fusion self-adapted interpolative controllers](#). In *2007 ISCIII'07: 3rd International Symposium on Computational Intelligence and Intelligent Informatics; Proceedings*, art. no. 4218397, pp. pp. 67-72. IEEE Xplore Digital Library, 2007.
  - Filip, I. , Prostean, O., Szeidert, I., Balas, V, Prostean, G. . [Comparative study regarding an adaptive fuzzy controller and a self-tuning controller with application to the excitation control of a synchronous generator](#). *WSEAS Transactions on Systems, Volume 5, Issue 7, July 2006*, p. Pages 1587, 2006.
  - Balas, M. M., Balas, V. E. . [Optimizing the distance-gap between cars by fuzzy-interpolative control with time to collision planning](#). In *2006 IEEE International Conference on Mechatronics, ICM*, art. no. 4018362, pp. pp. 215-21. IEEE Xplore Digital Library, 2006.
  - Balas, M. M., Balas, V. E., Balas-Timar, D. V., Szantho, L. R. . [The fuzzy-interpolative methodology in soft computing](#). *WSEAS Transactions on Information Science and Applications 3 (9)*, pp. pp. 1625-1, 2006.
  - Balas, V. E., Balas, M. M. . [Observing control systems by phase trajectories of the error](#). *WSEAS Transactions on Systems 5 (7)*, pp. pp. 1717-, 2006.
  - Balas, M. M., Balas, V. E., Barna, C. . [The constant effort imposed distance braking for urban railway vehicles](#). In *EUROCON 2005 - The International Conference on Computer as a Tool I*, art. no. 1629937, pp. pp. 365-36. IEEE Xplore Digital Library, 2005.
  - Precup, R. -E., Preitl, S., Balas, M., Balas, V. . [Fuzzy controllers for tire slip control in anti-lock braking systems](#). In *IEEE International Conference on Fuzzy Systems 3*, pp. pp. 1317-1. IEEE Xplore Digital Library, 2004.
  - Balas, M., Balas, V., Bocii, L. S., Radu, I., Koles, I. . [The real-time evaluation of the weariness of the disk brake](#). In *Proceedings of the Mini Conference on Vehicle System Dynamics, Identification and Anomalies*, pp. pp. 241-24. 2002.
  - Balas, V., Balas, M. . [The real-time estimation of the adherence by internal model](#). In *Proceedings of the Mini Conference on Vehicle System Dynamics, Identification and Anomalies*, pp. pp. 247-25. IEEE Xplore Digital Library, 2002.