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L i s t a l u c r u r i l o r t i i n i f i c e (s e l e c i e)

C r i , m o n o g r a f i i , t r a t a t e

a) C r i i c a p i t o l e d e c r i p u b l i c a t e d e e d i t u r i d i n R o m â n i a

1. Voicu M., 2010, Interconexiuni, *Editura Academiei Române*, București; 302 pag.; ISBN 978-973-27-1969-5
2. Voicu M., Seghedin N. (coord.), 2010, Manualul procedurilor pentru evaluarea și asigurarea calității; ed. A 2-a revizuit și adăugit. *Editura Politehniunum*, Iași, VI+750 pag.; ISSN 1583-4514
3. Voicu M., 2010, Societatea postmodernă și societatea cunoașterii. În Prelegeri academice, *Editura Academiei Române*; vol. VIII, București, pp. 93-118; ISSN 1583-4514
4. Voicu M., 2009, Elemente de teoria distribuțiilor. În Dumitrache I. (coord.), *Automatica*, *Editura Academiei Române*; vol. I, subcap. 1.4, pp. 91-104; ISBN 978-973-27-1883-4, 978-973-27-1882-7
5. Voicu M., 2009, Proprietăți structurale. În Dumitrache I. (coord.), *Automatica*, *Editura Academiei Române*; vol. I, cap. 5, pp. 229-255; ISBN 978-973-27-1883-4, 978-973-27-1882-7
6. Voicu M., 2009, Conducerea optimală. În Dumitrache I. (coord.), *Automatica*, *Editura Academiei Române*; vol. I, subcap. 13.3, pp. 648-670; ISBN 978-973-1883-4
7. Voicu M., Păstrăvanu O., Dima A. (Coord.), 2009, *Ingineria românească – factor al dezvoltării durabile*, vol. 1., Zilele academice ale Academiei de Științe Tehnice din România, ediția a IV-a, *Editura AGIR*, București, 325 pag.; ISSN 2066-6586
8. Voicu M., Nedevschi S., Crețu Vl., 2009, Program-cadru pentru domeniul Calculatoare și Tehnologia Informației. În Korca M. (coord.), *Educație de calitate pentru piața muncii*, *Editura Universitară*, București, subcap. 3.4, pp. 107-115; ISBN 978-973-749-758-1
9. Voicu M., Nedevschi S., Crețu Vl., 2009, Standarde de calitate a conținutului pentru programele de studii de licență în domeniul Calculatoare și Tehnologia Informației. În Korca M. (coord.), *Educație de calitate pentru piața muncii*, *Editura Universitară*, București, subcap. 3.3, pp. 103-107; ISBN 978-973-749-758-1
10. Voicu M., 2009, Constatări cu privire la aplicarea Metodologiei ARACIS în evaluarea de programe de studii de licență din domeniul Calculatoare și Tehnologia Informației. În Korca M. (coord.), *Educație de calitate pentru piața muncii*, *Editura Universitară*, București, Subcap. 3.1, pp. 78-92; ISBN 978-973-749-758-1
11. Voicu M., 2008, Teoria sistemelor, *Editura Academiei Române*, București, 416 pag.; ISBN 978-973-27-1673-1
12. Voicu M. (coord.), 2008, Manualul procedurilor pentru evaluarea și asigurarea calității educației. *Editura Politehniunum*, Iași, 498 pag.; ISBN 978-973-621-179-9
13. Voicu M., 2006, Secolul XXI sau Cum descinde secolul XXI din mileniul II, *Editura Academiei Române*, București, 174 pag.; ISBN 10) 973-27-1468-9, ISBN (13) 978-973-27-

14. Voicu M., 2004, Conexiuni, *Editura Politehniun*, Ia i, 196 pag.; ISBN 973-621-066-9
15. Voicu M., 2002, Cauzalitatea – probleme epistemologice în modelarea matematică a sistemelor. În Prelegeri academice, vol. I, *Editura Apollonia*, Ia i, pp. 75-90; ISSN 1583-4514
16. Voicu M., 2001, Teoria sistemelor cu aplicații în bioingineria medicală, *Editura „Gheorghe Asachi”*, Ia i, 220 pag.; ISBN 973-8050-70-7
17. Voicu M., Pastravanu O., 1997, Non-recursive models in control system analysis and design, *Editura Dosoitei*, Ia i, 145p.; ISBN 973-9135-31-5
18. Voicu M., 1993, Sisteme automate multivariabile, *Editura „Gheorghe Asachi”*, Ia i, 264 pag.; ISBN 973-95650-8-5
19. Voicu M., 1986, Tehnici de analiză a stabilității sistemelor automate. *Editura Tehnic*, București, 390 pag.

Manuale universitare

1. Voicu M., 2013, Introducere în automatică – suport de curs (format tip rit), *Editura Conspress* (a Universității Tehnice de Construcții din) București, 256 pag.; ISBN 978-973-100-250-7
2. Voicu M., Almoreanu M., Cojocaru D., Târnovan G. I., 2010, Cap. 12, Domeniul științei ingineriei. În Ivănescu I., Stanciu M. D., Florescu M. C. (coord.), Suport de curs pentru formarea evaluatorilor ARACIS, vol. II, *Editura Qual Media*, București, pp.597-687; ISBN 978-606-8154-05-3
3. Voicu M., 2002, Introducere în automatică (ediția a II-a revizuită și actualizată), *Editura POLIROM*, Iași, XIV+264 pag.; ISBN 973-681-111-5
4. Voicu M., Ferariu L, Pastravanu O., Schonberger Fr., 1999, Introducere în Automatică – Culegere de probleme, *Editura Matrix Rom*, 217pag., ISBN 973-685-135-4
5. Voicu M., 1998, Introducere în automatică, *Editura Dosoitei*, Iași, 250 pag.; ISBN 973-9135-60-9

b) Cărți publicate de edituri internaționale

1. Voicu M. (Ed.), 2004, Advances in Automatic Control, *Kluwer International Series in Engineering and Computer Science*, 754, Boston, 456 pag.; ISBN 1-4020-7607-X
2. Gabko P., Kopacek P., Voicu M. (Eds), 1993, Computer Science Topics in Automatic Control Engineering Education, Vienna University of Technology, Vienna University of Technology, *SEFI Documents*, No. 10/1993, Brussels, 243 pag.; ISBN 2-87352-012-4

c) Capitoale în cărți publicate de edituri internaționale

1. Pastravanu O., Voicu M., 2004, Componentwise asymptotic stability – from flow-invariance to Lyapunov functions, In Voicu M. (Ed.), Advances in Automatic Control, *Kluwer International Series in Engineering & Computer Science*, 754, pp. 257-270; ISBN 1-4020-7607-X
2. Voicu M., Pastravanu O., 2004, Setting up the reference input in sliding motion control and its closed-loop tracking performance, In Voicu M. (Ed.), Advances in Automatic Control, *Kluwer International Series in Engineering & Computer Science*, 754, pp. 383-392; ISBN 1-4020-7607-X
3. Voicu M., Pastravanu O., 2004, Flow-invariance method in control – a survey of some results, In Voicu M. (Ed.), Advances in Automatic Control, *Kluwer International Series in Engineering & Computer Science*, 754, pp. 393-433; ISBN 1-4020-7607-X
4. Voicu M., Pastravanu O., 2003, Componentwise asymptotic stability induced by symmetrical polyhedral time-dependent constraints, In Barbu V., Lasieka I., Tiba D, Vârsan C. (Eds.), Analysis and Optimization of Differential Systems, *Kluwer*, pp. 433-242, IFIP 121; ISBN 1-4020-7439-5

5. Voicu M., Lazar C., Schonberger F., Ifrim S., 1997, Predictive control of thermal treatment processes; Cap. 10. In Albertos P. et al (Eds), Control Engineering Solutions – a practical approach, *The Institution of Electrical Engineers*, London; ISBN 0 85296 829 9
6. Pastravanu O., Voicu M., 1994, Mathematical background of self-learning pole placement via non-recursive linear models, In Houstis E. N., Rice J. R. (Eds.), Artificial Intelligence, Expert Systems and Symbolic Computing, 1992, *Elsevier*, pp. 331-342; ISBN 0-444-89703-8
7. Pastravanu O., Voicu M., Isopescu L., Calinescu R., 1993, Symbolic manipulation CAD for parameterized families of systems, In Stowell F. A., West D., Howell J. G. (Eds.), Systems Science: Addressing Global Issues, *Plenum*, pp. 507-512; ISBN 0-306-44522-0
8. Pastravanu O., Voicu M., 1992, Effects of sampled and quantized control on the geometry of the reachability sets of linear continuous systems, In Sydow A. (Ed.), Computational Systems Analysis, *Elsevier*, pp. 221-226; ISBN 0-444-89780-1
9. Pastravanu O., Voicu M., 1992, A trajectory-related geometric insight into state feedback derived from Ackermann's formula, In Trapp R. (Ed.), Cybernetics and Systems Research '92, *World Scientific Publishing*, vol. 1, pp. 237-244; ISBN 981-02-1991-1
10. Pastravanu O., Voicu M., 1991, Eigenvalues assignment method based on non-recursive linear models, In Barbu V. (Ed.), Differential Equations and Control Theory, Longman Scientific and Technical, Pitman Research Notes in Mathematics Series 250, *Longman House*, pp. 264-272; ISBN 0-582-06691-3

Articole publicate în reviste de specialitate indexate ISI și BDI

a) Reviste indexate ISI

1. Voicu M., Robust controller including a modified Smith predictor for AQM supporting TCP flows; *Control Engrg and Appl. Informatics*, 2012, vol.14, no.3, pp. 3-8; ISSN 1454-8658
2. Matcovschi M. H., Pastravanu O., Voicu M., 2012, Right bounds for eigenvalue ranges of interval matrices - Estimation principles vs global optimization, *Journal of Control Engineering and Applied Informatics*, vol. 14, no. 1, pp. 3-13; ISSN 1454-8658
3. Pastravanu O., Matcovschi M. H., Voicu M., 2009, Invariant-set-based analysis and design. a survey of some noticeable contributions, *Romanian Journal of Information Science and Technology*, vol. 12, no. 4, pp. 425-439; ISSN 1453-8245
4. Matcovschi M.H., Pastravanu O., Voicu M., 2007, Novel results in the qualitative analysis of continuous-time bidirectional associative memories, *Mathematical Reports*, vol. 9 (59), no. 1, pp. 61-75; ISSN 1582-3067
5. Voicu M., 2007, Determination of McMillan degree via Hankel block matrices associated to Taylor series expansion. *Studies in Informatics and Control*, vol. 16, no. 4, pp. 393-400; ISSN 1220-1766
6. Matcovschi M.H., Pastravanu O., Voicu M., 2007, Invariant sets with arbitrary time-dependence in the dynamics of linear systems with interval-type uncertainties, *Control Engineering and Applied Informatics*, vol. 9, no. 3-4, pp. 36-42; ISSN 1454-8658
7. Voicu M., Lazar C., Pastravanu O., Ganciu T., Balaban E., Bejan I., Panescu D., 2006, Brief history of the automatic control degree course at Technical University "Gheorghe Asachi" of Iasi, *Control Engineering and Applied Informatics*, vol. 8, no. 4, pp. 9-17; ISSN 1454-8658
8. Pastravanu O., Voicu M., 2006, Generalized matrix diagonal stability and linear dynamical systems, *Linear Algebra and its Applications*, 419, issues 2-3, pp. 299-310; ISSN 0024-3795
9. Pastravanu O., Matcovschi M.H., Voicu M., 2006, New results in the state-space analysis of positive linear systems, *Romanian Journal of Information Science and Technology*, vol. 9, no. 3, pp. 217-225; ISSN 1453-8245
10. Pastravanu O., Voicu M., 2005, On the componentwise stability of linear systems, *Int. J. Robust and Nonlinear Control*, 15, 1, pp. 15-23; ISSN 1049-8923

11. Pastravanu O., Voicu M., 2004, Necessary and sufficient conditions for componentwise stability of interval matrix systems, *IEEE Trans. Automatic Control*, 49, 6, pp. 1016-21; ISSN 0018-9286
12. Matcovschi M., Pastravanu O., and Voicu M., 2003, Componentwise absolute stability of Hopfield neural networks without delay, *Revue Roumaine Sci. Techn. – Electrotechn. et Energ.*, vol. 48, no. 4, pp. 495-504; ISSN 0035-4066
13. Pastravanu O., Voicu M., 2002, Interval matrix systems – Flow invariance and componentwise asymptotic stability, *Differential and Integral Equations*, 15, 11, pp. 1377–94; ISSN 0893-4983
14. Voicu M., Pastravanu O., 2002, Time-domain and parametric L^2 -properties corresponding to Popov inequality, *Kybernetika*, vol. 38, no.5, pp. 617-629; ISSN 0023-5954
15. Voicu M., Pastravanu O., 2002, Exploring the componentwise absolute stability of endemic epidemic systems via SIR models, *Control Engineering and Applied Informatics*, vol. 4, no. 4, pp. 23-28; ISSN 1454-8658
16. Pastravanu O., Voicu M., 2001, Robustness of componentwise asymptotic stability for a class of nonlinear systems, *Proc. Romanian Academy, Series A*, vol. 2, no. 1-2, pp. 61-67; ISSN 1454-9069
17. Pastravanu O., Voicu M., 2000, Quasi-behavioral approach to eigenvalue assignment, *Revue Roumaine Sci. Techn. - Electrotechn. et Energ.*, vol. 45, no. 3, pp. 373-89; ISSN 0035-4066
18. Pastravanu O., Voicu M., 2000, Preserving componentwise asymptotic stability under disturbances, *Revue Roumaine Sci. Techn. – Electrotechn. et Energ.*, vol. 45, no. 3, pp. 413-25; ISSN 0035-4066
19. Pastravanu O., Voicu M., 1995, Geometric approach to eigenvalue assignment with decoupled finite effect sequence constraints, *Systems Analysis - Modelling - Simulation*, vol. 18-19, pp. 119-122, ISSN 0232-9298 (incorporated into *Int. Journal of Systems Science*, archive 1984-2003)
20. Moro an B. I., Voicu M., 1994, General sliding mode systems analysis and design via flow invariance method, *Studies in Informatics and Control*, vol. 3, no. 4, pp. 347-366; ISSN 1220 1766
21. Pastravanu, O., Voicu, M., Isopescu, L., 1992, Design and real-time implementation of a structurally stable compensator for a BIBO unstable multi-model system, *Studies in Informatics and Control*, vol. 1, no 3, pp. 215-225; ISSN 1220-1776
22. Voicu M., Moro an B., 1991, Variable structure controller for feedback positioning of dc electric motor. *Revue Roumaine des Sciences Techniques*, ser. electr. energ., tom 32, 2, pp. 247-264; ISSN 0035-4066
23. Pastravanu O., Voicu M., 1989, A microcomputer-based teaching environment for control engineering, *Systems Analysis – Modelling - Simulation*, vol 6, no. 11-12, pp. 933-937; ISSN 0232-9298 (incorporated into *Int. Journal of Systems Science*, archive 1984-2003)
24. Voicu M., 1987, Observing the state with componentwise exponentially decaying error. *Systems & Control Letters* 9, pp. 33-42; ISSN 0167-6911
25. Voicu M., 1984, Componentwise asymptotic stability of the linear constant dynamical systems. *IEEE Transactions on Automatic Control*, vol. AC-29, no. 10, pp. 937-939; ISSN 0018-9286
26. Voicu M., 1980, Kirchhoff interconnectability of linear constant dynamical systems. *International Journal of Systems Science*, no. 8, pp. 907-919; ISSN 0020-7721

b) Reviste indexate BDI

1. Voicu M., Al moreanu M., Lache S., Cre O., 2010, Îmbun t irea procesului de evaluare a calit ii programelor de studii inginerie ti în universit ile din România. *Quality Assurance Review for Higher Education*, vol. 2, or. 2, pp. 120-133; ISSN 2066-9119

2. Voicu M., 2009, Evaluarea intern a calit ii programelor de studiu, *Quality Assurance Review for Higher Education*, vol. 1, no. 1, pp. 79- 83; ISSN 2066-9119
3. P str vanu O., Matcovschi M., Voicu M., 2008, Numerical design of state-space observers with componentwise monitored error, *Buletinul Institutului Politehnic din Ia i, sec ia IV, Automatica i Calculatoare*, Tome LIV (LVIII), fasc 1, pp. 25-34; ISSN 1220-2169
4. Pastravanu O., Voicu M., 2005, Flow-invariant exponential stability of linear systems. *Memoriile Sectiilor Stiintifice ale Academiei Romane*, Seria IV, tom XXVIII, pp. 173-184, ISSN 1224-1407
5. Pastravanu O., Voicu M., 2003, Dynamics of a class of uncertain nonlinear systems under flow-invariance constraints, *Int. J. Mathematics and Mathematical Sciences*, vol. 5, pp. 263-94; ISSN 0161-1712
6. Pastravanu, O., Voicu, M., 2002, Flow-invariance and componentwise asymptotic stability of a class of nonlinear systems – he non-symmetrical case, *Memoriile Sec iilor tiintifice ale Academiei Romane*, Seria IV, tom XXV, pp. 7-22; ISSN 11224-1407
7. Pastravanu, O., Voicu, M., 2001, State feedback and observer design ensuring componentwise asymptotic stability, *Buletinul Institutului Politehnic din Iasi*, tom XLVII (LI), sec ia IV, Automatica i Calculatoare, fasc. 1-4, pp. 85-98; ISSN 1220-2169
8. P nescu D., Voicu M., Dumbrav t., Ro ioru R., Porumb G., Br escu C., Dorin V., 2001, The development of a flexible manufacturing system for CIM education, *Buletinul Institutului Politehnic din Ia i, sec ia IV, Automatica i Calculatoare*, tom XLVII (LI), 1-4, pp. 75-83; ISSN 1220 2169
9. Voicu M., 1998, Sufficient conditions for Hurwitz and Schur polynomials. *Buletinul Institutului Politehnic din Ia i, sec ia IV, Automatica i Calculatoare*, tom XLIV (XLVII), pp. 1-6; ISSN 1220 2169
10. Voicu M., 1997, System matrix with prescribed off-diagonal entries obtained via state feedback. *Buletinul Institutului Politehnic din Ia i, sec ia IV, Automatica i Calculatoare*, tom XLIII (XLVIII), pp. 5-9; ISSN 1220 2169
11. Voicu M., Moro an B. I., 1997, Variable structure control system characterization and design via flow -invariance method. *International J. Automation Austria*, 1, vol. 5, pp. 12-15; ISSN 1562-2703
12. Voicu M., Pastravanu O., Lazar C., 1996, A didactic approach to the hyperstability of automatic control systems, *Buletinul Institutului Politehnic din Iasi*, tom XLII (XLVI), sec ia IV, Automatica i Calculatoare, pp. 95-102; ISSN 1220-2169
13. Pastravanu O., Ifrim S., Lazar C ., Voicu M., 1996, Petri-net based approach to resource allocation in fuzzy distributed control, *Buletinul Institutului Politehnic din Iasi*, XLII (XLVI), sec ia IV, Automatica i Calculatoare, 109-114; ISSN 1220-2169
14. Voicu M., Pastravanu O., 1994, Development of low-cost automation in Romania, *Buletinul Institutului Politehnic din Iasi*, XL (XLIV), sec ia IV, Automatica i Calculatoare, pp. 21-22; ISSN 1220-216 (O versiune preliminar a fost comunicat la *IFAC Symp. on Low-Cost Automation*, Vienna University of Technology, Sept. 9-11, 1992; *Proceedings, IFAC*, 6 pag.)
15. Voicu M., Lazar C., Balaban, E., Ganciu T., Pastravanu, O., 1994, Designing a new curriculum for automatic control, *Buletinul Institutului Politehnic din Iasi*, tom XL (XLIV), sec ia IV, Automatica i Calculatoare, pp. 23-40; ISSN 1220-2169 (O persiune prealabil a fost comunicat la *Workshop on Automation and Control Technology Education 2001*, Vienna University of Technology, January 25-27, 1993; publicat în *SEFI Documents* (Brussels), No. 2/1993, (ISBN 2 87352 005 1), pp. 84-110.)
16. Voicu M., Pastravanu O., 1994, Transferring knowledge from mathematics to systems and control theory - A metatheoretic and didactic viewpoint, *Buletinul Institutului Politehnic din Iasi*, XL (XLIV), sec ia IV, Automatica i Calculatoare, pp. 41-52; ISSN 1220-2169 (O

versiune preliminar a fost comunicat la *Workshop on Automation and Control Technology Education 2001*, Vienna University of Technology, January 25-27, 1993; publicat în *SEFI Documents* (Société d'Éducation et Formation des Ingénieurs, Brussels), No. 2/1993 (ISBN 2 87352 005 1), pp. 211-226.)

17. Lazar C., Pastravanu O., Voicu M., 1994, Laboratory equipment and process set-ups for control systems, *Buletinul Institutului Politehnic din Iasi*, tom XL (XLIV), sec ia IV, Automatica i Calculatoare, 61-68; ISSN 1220-2169 (O versiune preliminar a fost comunicat la *European Seminar on Automation and Control Technology Education*, Dresden Technical University, April 21-23, 1993; publicat în *SEFI Documents* (Brussels), No. 9/1993 (ISBN 2 87352 011 6), pp. 93-104.
18. Poli E., Pastravanu O., Voicu M., 1994, Design of real-time applications, *Buletinul Institutului Politehnic din Iasi*, tom XL (XLIV), sec ia IV Automatica i Calculatoare, pp. 69-78; ISSN 1220-2169 (O versiune preliminar a fost comunicat la *European Seminar on Automation and Control Technology Education*, Technical University of Dresden (Germany), April 21-23, 1993; publicat în *SEFI Documents* (Brussels), No. 9/1993 (ISBN 2 87352 011 6), pp. 167-178.)
19. Voicu M., 1993, On the McMillan degree of a strictly proper rational matrix. *Buletinul Institutului Politehnic din Ia i*, sec ia IV, Automatica i Calculatoare, tom XXXIX (XLIII), pp. 35-40; ISSN 1220 2169
20. Voicu M., Pastravanu O., 1992, An approach to linear-quadratic control problem using non-recursive models, *Buletinul Institutului Politehnic din Iasi*, tom XXXVIII (XLII), sec ia IV, pp. 61-72; ISSN 1220-2169
21. Voicu M., Sufficient existence conditions of limit cycles. *Buletinul Institutului Politehnic din Ia i*, sec ia III, XXXVII (XXXI), 1990, 1-2, pp. 23-26.
22. Lazar C., Voicu M., 1989, Performances improvement using I-intelligent controller in case of state feedback stabilized systems with non zero initial condition, *Buletinul Institutului Politehnic din Ia i*, sec ia III, tom XXXV (XXXIX), fasc. 1-2, pp. 19-24; ISSN 0304-5188
23. Voicu M., Moro an B.-I., State space flow structure induced by sliding motion control. *Buletinul Institutului Politehnic din Ia i*, sec ia III, XXXVI (XXXX), 1989, 3-4, pp. 25-29.
24. Voicu, M., Pastravanu, O., 1988, On the dimension of linear dynamical systems, *Buletinul Institutului Politehnic din Iasi*, XXXIV (XXXVIII), sec ia III, pp. 21-26; ISSN 0304-5188
25. Lazar, C., Voicu, M., Pastravanu, O., 1987, Performance improvement using I-intelligent controller in case of Kessler's optimization criteria, *Buletinul Institutului Politehnic din Iasi*, tom XXXIII (XXXVII), sec ia III, pp. 74-78; ISSN 0304-5188
26. Voicu M., Pastravanu O., 1987, Practical testing of state and output controllability, *International Journal of Systems Science*, 13 (1987), no. 3-4, pp. 93-105; ISSN 0137-1223
27. Voicu M., A 1986, A sufficient asymptotic stability condition for discrete systems, *Buletinul Institutului Politehnic din Ia i*, sec ia III, tom XXXII (XXXVI), fasc. 1-4, pp. 37-39; ISSN 0304-5188
28. Voicu M., Ein Anwendungsbeispiel der komponentenweisen Stabilisierung. *Buletinul Institutului Politehnic din Ia i*, sec ia III, XXXI (XXXV), 1985, 1-4, pp. 57-60.
29. Voicu M., 1984, Pathological phenomena in the Kirchhoff interconnected hypersystems, *Buletinul Institutului Politehnic din Ia i*, sec ia III, XXX (XXXIV), 1984, fasc. 1-4, pp. 47-49
30. Voicu M., Gerschgorinsche Kreise und die komponentenweise Stabilisierung. *Buletinul Institutului Politehnic din Ia i*, sec ia III, XXXI (XXXV), 1985, 1-4, pp. 45-50.
31. Voicu M., State constraints and asymptotic stability of linear constant dynamical systems. *Buletinul Institutului Politehnic din Ia i*, sec ia III, XXVII (XXXI), 1981, 3-4, pp. 57-60.
32. Voicu M., 1980, Schätzung von Stromüberschwingungen der konventionellen Verzerrungs-betriebesquelle von industriellen elektrischen Netzwerken mittels Luenberger – Beobachters,

- Buletinul Institutului Politehnic din Ia i*, sec ia III, tom XXVI (XXX), fasc. 3-4, pp. 89-102
33. Voicu M., 1979, Wienerfilter für die optimale Dämpfung des Verzerrungsbetriebes von industriellen elektrischen Netzwerken, *Buletinul Institutului Politehnic din Ia i*, sec ia III, tom XXV (XXIX), 1-2, pp. 51-64
 34. Voicu M., 1979, Adaptive Wienerfilter für die optimale Dämpfung des Verzerrungsbetriebes von industriellen elektrischen Netzwerken, *Buletinul Institutului Politehnic din Ia i*, sec ia III, tom XXV (XXIX), fasc. 3-4, pp. 77-86
 35. Voicu M., 1978, Digitale Simulation des Verzerrungsbetriebes von elektrischen industriellen Netzwerken als stochastischer Prozess, *Bul. Inst. Politehnic din Ia i*, sec ia III, tom XXIV (XXVIII), fasc. 1-2, pp. 77-84
 36. Voicu M., 1978, Theoretical problems concerning the design of the variable filters for optimal compensation of the deforming regime (in Romanian), *Electrotehnica*, no.5, pp. 155-159
 37. Bejan I., Voicu M., i ariu I., Asandei D., Pal C., 1978, Stability conditions for a nonlinear controller used for voltage automatic control, *Bul. Inst. Politeh. din Ia i*, sec ia III, tom XXIV (XXVIII), fasc. 3-4, pp. 97-108
 38. Voicu M., 1977, Analyse der inneren stochastischen Störung, formelle Ursache des Verzerrungsbetriebes von industriellen Netzwerken mittels dynamisch statistischer Methoden, *Buletinul Institutului Politehnic din Ia i*, sec ia III, tom XXIII (XXVII), fasc. 3-4, pp. 53-60
 39. Voicu M., Verzerrungsbetrieb als stochastischer Prozess; eine allgemeine äquivalente Schaltung des elektrischen industriellen Netzwerkes, Unterlage des Verzerrungsbetriebes, *Buletinul Institutului Politehnic din Ia i*, sec ia III, XXII (XXVI), 1976, 3-4, pp. 45-50
 40. Voicu M., 1976, Auto-optimal compensation of deforming regime (in Romanian), *Electrotehnica*, no. 8, pp. 287-294
 41. Voicu M., 1975, Über die Entwurfsvoraussetzungen der für die Dämpfung des Verzerrungsbetriebes von industriellen elektrischen Netzwerken bestimmten Resonanzfilter, *Buletinul Institutului Politehnic din Ia i*, sec ia III, tom XX (XXIV), fasc. 3-4, pp. 83-90
 42. Voicu M., Sebastian L., 1974, Analyse des Verzerrungsbetriebes von industriell angewandten elektrischen Netzwerken mittels dynamisch statistischer Methoden, *Elektrotechnische Zeitschrift A*, Heft 6, pp. 310-315
 43. Sebastian L., Voicu M., 1974, Stabilität von Grenzwahlungen bei nichtlinearen Regelungssystemen mit zwei Nichtlinearitäten, *Regelungstechnik und Prozessdatenverarbeitung*, Heft 10, pp. 317-319
 44. Voicu M., 1972, Identification complète des processus dynamiques linéaires, *Revue Française d'Automatique, Informatique et de Recherche opérationnelle*, no. J-2, pp. 87-95
 45. Bejan I., Balaban G., Voicu M., 1972, Possibilité d'augmenter la grandeur de sortie et la sensibilité du modulateur magnétique avec sortie sous fréquence double, utilisé comme élément de mesure de la phase, *Buletinul Institutului Politehnic din Ia i*, sec ia III, tom XVIII (XXII), fasc. 3-4, pp. 193-204
 46. Bejan I., Balaban G., Voicu M., 1972, The possibility of using the second-harmonic-type magnetic modulator as directional relays and transmitters of active and reactive power, *Buletinul Institutului Politehnic din Ia i*, sec ia III, tom XVII (XXI), fasc. 1-2, pp. 73-78
 47. Bejan I., Balaban G., Voicu M., 1971, Study of the second-harmonic-type magnetic modulator used as a static element in measuring the phase difference between current and voltage, *Bulet. Institutului Politehn. din Ia i*, sec ia III, tom XVII (XXI), fasc. 3-4, pp. 73-78
 48. Voicu M., 1970, A property of passive linear dipoles in nonsinusoidal permanent regime (in Romanian), *Electrotehnica*, no. 7, pp. 233-236
 49. Giosan T., 1970, Voicu M., Formules d'approximation et d'interpolation par polynômes obtenues à l'aide du déterminant Vandermonde, *Bulet. Inst. Politehnic din Ia i*, sec ia III, tom XVI (XX), fasc. 3-4, pp. 13-19

50. Voicu M., 1970, Contribution a la détermination de l'influence des paramètres inductifs et capacitifs des bobines cylindriques sur les sollicitations de l'isolement transversal de la bobine soumise a l'onde de choc de tension, II, *Buletinul Institutului Politehnic din Ia i*, sec ia III, tom XVI (XX), fasc. 3-4, pp. 97-104
51. Voicu M., 1969, Contribution a la détermination de l'influence des paramètres inductifs et capacitifs des bobines cylindriques sur les sollicitations de l'isolement transversal de la bobine soumise a l'onde de choc de tension, *Bulet. Institutului Politehnic din Ia i*, sec ia III, tom XIV (XVIII), fasc. 3-4, pp. 417-428

Lucr ri publicate în volumele unor conferin e interna ionale indexate ISI i BDI

1. O. Pastravanu, M.H. Matcovschi, M. Voicu, 2013, Feasible and equilibrium solutions to the closed Leontief models, *IEEE 17th Conf. on Systems Theory, Control and Computing ICSTCC Sinaia*; technically co-sponsored by IEEE Control Systems Society, IEEE-Xplore
2. Pastravanu, O., Halauca, C., Voicu, 2012, M., Fragility analysis for CWEAS state feedback control, *IEEE 16th International Conference on Systems Theory, Control and Computing ICSTCC*, Sinaia; technically co-sponsored by IEEE Control Systems Society, IEEE-Xplore
3. Voicu M. (ed.), 2011, *IEEE 15th Int. Conf. On System Theory, Control and Computing*, Sinaia; technically co-sponsored by IEEE Control Systems Society, IEEE-Xplore; ISBN 978-973-621-322-9
4. O. Pastravanu, M.-H. Matcovschi, M. Voicu, 2011, Qualitative analysis results for arbitrarily switching positive systems, *18th World Congress of IFAC*, Milan, pp. 1326-1331
5. M.H. Matcovschi, O. Pastravanu, and M. Voicu, 2011, On some properties of diagonally stable polytopic systems, *15th International Conference on System Theory, Control and Computing – ICSTCC 2011*, Sinaia, pp. 353-358; technically co-sponsored by IEEE Control Systems Society, IEEE-Xplore, ISBN: 978-973-621-322-9
6. Seghedin N., Voicu M., Todorean D., Marian S., 2010, Using the weighted cause – effect diagram in the process of quality assurance in higher education, *6th Int. Seminar “Quality Management in Higher Education”*, Tulcea
7. Seghedin N., Voicu M., Todorean D., Marian S., 2010, Ways to development of the quality culture in universities, *6th Int. Seminar “Quality Management in Higher Education”*, Tulcea
8. Voicu M., Matcovschi, M.H., Pastravanu O., 2007, Invariant and contractive sets in motion stability analysis of a mobile robot, *4th IFAC Conference on Management and Control of Production and Logistics (IFAC MCPL 2007)*, Sibiu, Preprints, vol. I, pp. 133-138; ISBN 978-973-481-1
9. O. Pastravanu, M.H. Matcovschi, and M. Voicu, 2007, Majorant matrices in the qualitative analysis of interval dynamical systems, *European Control Conference ECC'07*, Kos, Greece, 2-5 July 2007, CD, 6pp.
10. Pastravanu O., Matcovschi M.H., Voicu M., 2006, Time-dependent invariant sets in system dynamics, *IEEE Conference on Control Applications (CCA 2006)*, München, Proceedings on CD-ROM, 6 pg, IEEE Catalog Number: 06CH37824C
11. Pastravanu O., Matcovschi M.H., Voicu M., 2005, Diagonally invariant exponential stability, *16th IFAC World Congress*, Prague, DVD-ROM, 6 pag.; ISBN 978-008-0451-0-84
12. Pastravanu O., Voicu M., 2003, Norm-based approach to componentwise asymptotic stability, *11th IEEE Mediterranean Conference on Control and Automation MED'03*, Rhodes, Greece, CD-ROM, 6 pag.; ISBN 960-87706-0-20
13. Pastravanu O., Voicu M., 2003, Componentwise stabilizability and detectability of linear systems, *European Control Conference ECC2003*, Univ. of Cambridge, CD-ROM, pp. 648-53
14. Pastravanu O., Voicu M., 2001, Dynamics of a class of nonlinear systems under flow-invariance constraints, *9th IEEE Mediterranean Conference on Control and Automation*,

- MED 01*, Dubrovnik, Book of Abstracts, pp. 94, ISBN 953-6037-34-3, CD-ROM, 6 pag.; ISBN 953-6037-35-1
15. Pastravanu O., Voicu M., 2001, Flow-invariance in exploring stability for a class of non-linear uncertain systems, *European Control Conference, ECC 2001*, Porto, Book of Abstracts, pp. 47, ISBN 972-752-047-2, Proceedings on CD-ROM, 6 pag.
 16. Pastravanu O., Voicu M., 2001, Componentwise asymptotic stability of a class of nonlinear systems, *IFAC/IEEE Symposium on System Structure and Control 2001*, Prague, pp. 407-412; ISBN 0080434142
 17. Voicu M., Pastravanu O., 2001, Time-domain and parametric properties corresponding to Popov inequality, *1st IFAC Symposium on System Structure and Control (SSSC 01)*, August 29-31, Czech Techn. University of Prague, p. 52; Proceedings ISBN 0-08-043414-2; CD-ROM, 108, 6 pag.
 18. Pastravanu O., Voicu M., 2000, Robustness analysis of componentwise asymptotic stability, *Proceedings of the 16th World Congress of IMACS, IMACS 2000*, Lausanne, CD-ROM, 6 pag.; ISBN 3-95222075-1-9
 19. Pastravanu O., Voicu M., 1999, Flow-invariant rectangular sets and componentwise asymptotic stability of interval matrix systems, *5th European Control Conference ECC'99*, Karlsruhe, 1999; Volume of abstracts, pp. 13; Full paper on CD-ROM, rubicon GmbH
 20. Voicu M., Panescu D., Pastravanu O., Dumbrava St., Ifrim S., Resmerita St., 1998, CIM systems: a new trend in control engineering education, *Global Congress on Engineering Education*, Cracow, UNESCO International Centre for Engineering Education, pp. 337-341; ISBN 0 7326 1903 3
 21. Pastravanu O., Voicu M., 1998, East-West academic cooperation within the framework of TEMPUS-PHARE Program, *IFAC Conf. Supplemental Ways for Improving International Stability SWISS'98*, Sinaia, Elsevier, pp. 97-103; ISBN: 008043231X
 22. Pastravanu O., Voicu M., 1997, State feedback control in a quasi-behavioral setting based on non-recursive models, *4th European Control Conference ECC'97*, Bruxelles, Volume of abstracts, pp. WE-E J4; Full paper on CD-ROM, BELWARE Information Technology, Belgium, pp. WE-E J4
 23. Voicu M., Pastravanu O., 1995, Optimal control design based on non-recursive linear models, *3rd European Control Conference ECC'95*, Universita La Sapienza, Rome, *Proceedings*, vol. 1, pp. 501-506
 24. Marcu T., Voicu M., 1995, A neuro-fuzzy approach to pattern recognition for process change detection, *3rd European Control Conference*, Universita La Sapienza, Rome, vol. 3, pp. 1999-2004
 25. Voicu M., Lazar C., Pastravanu O., 1994, Fuzzy-type PID control using Shegalkin polynomials, *International Workshop on Fuzzy Technologies in Automatic and Intelligent Systems – Fuzzy Duisburg'94*, Duisburg, pp 155-160.
 26. Voicu M., Moro an B.-I., 1994, Teaching fundamentals of automatic control and system theory, *European Seminar on Automation and Control Technology Education – „EXACT 94”*, Technical University of Dresden, *SEFI Documents* (Brussels), No. 11/1994, pp. 44-50; ISBN 2 87352 015 9
 27. Marcu T., Voicu M., 1993, Fuzzy and non-parametric techniques of pattern recognition for fault detection in dynamic systems, *2nd European Control Conference*, University of Groningen, *Proceedings*, 6 pag.
 28. Voicu M., Marcu T., 1993, The integration of computer science topics – clue of education in control engineering, *Workshop on Computer Science Topics for Control Engineering Education*, Vienna University of Technology, *SEFI Documents* (Brussels), No. 10/1993 (), Brussels, pp. 7-12; ISBN 2 87352 012 4

29. Voicu M., Pastravanu O., Pavaluc L., Lazar C., 1992, Design and numerical implementation of a state estimator for biosynthesis processes, *2nd IFAC Symposium on Modelling and Control of Biotechnical Processes*, Colorado, Pergamon Press, pp.359-362; ISBN 0-08-041710-8
30. Voicu M., Pastravanu O., Pavaluc L., Lazar C., 1992, State estimation techniques in increasing the efficiency of computer-controlled biosynthesis processes, *IFAC Workshop on Automatic Control for Quality and Productivity*, Istanbul, vol.2, pp.487-494
31. Voicu M., Pastravanu O., Pavaluc L., Lazar C., 1992, State estimation techniques in increasing the efficiency of computer-controlled biosynthesis processes, *IFAC Workshop on Automatic Control for Quality and Productivity*, Istanbul, vol.2, pp. 487-494
32. Voicu M., Pastravanu O., Lazar C., 1992, Design and numerical implementation of a state estimator for biosynthesis processes, *2nd IFAC on Modelling and Control of Biotechnical Processes*, Colorado, *Proceedings, IFAC*, pp. 350-362
33. Marcu T., Voicu M., 1992, Fuzzy weighted clustering and classification for process fault detection, *IFAC Symp. on Artificial Intelligence in Real Time Control*, Delft, *Proceedings, IFAC*, pp. 275-280
34. Marcu T., Voicu M., 1991, Miscellaneous pattern classification techniques for process fault detection and isolation, *IFAC/IMACS International Symp. on Fault Detection, Supervision and Safety for Technical Processes*, Baden-Baden, *Proceedings, VDI/VDE*, vol. I, pp. 175-180
35. Pastravanu O., Voicu M., 1991, Self-learning control using non-recursive linear models, *13th IMACS World Congress*, Dublin, vol. III, pp. 1041-1042
36. Marcu T., Voicu M., 1991, Miscellaneous pattern classification techniques for process fault detection and isolation, *IFAC/IMACS International Symp. on Fault Detection, Supervision and Safety for Technical Processes*, Baden-Baden, *Proceedings, VDI/VDE*, vol. I, pp. 175-180
37. Pastravanu O., Voicu M., Marcu T., Lazar C., 1991, From numerical to symbolic computation - Modern perspectives for computer-aided education in control engineering, *IEEE Region 8 Int. Conf. MELECON'91*, Ljubljana, vol. II, pp. 1548-1551, IEEE Cat. No:91CH2964-5, ISBN 0-87942-655-1
38. Voicu M., Pastravanu O., 1990, Optimal control of systems with unknown parameters using non-recursive linear models, *IEEE Int. Workshop on Intelligent Motion Control*, Istanbul, pp. 757-761, IEEE Cat. No:90TH0272-5
39. Lazar C., Voicu M., Pastravanu O., 1989, A microcomputer-based vision system, *3rd International Conference on Automatic Image Processing CAIP'89*, Leipzig, Akademie-Verlag, Poster book, pp. 21-23

Brevete de invenție

1. Lazar C., Voicu M., Leca M., Asandei D., Pal C., 1988, Procedeu și dispozitiv pentru codarea imaginii TV. Brevet nr. 94 966/1988. Titular: *Institutul Politehnic*, Iași
2. Voicu M., Pal C., Asandei D., Lazar C., 1986, Metodă și dispozitiv pentru testarea controlabilității sistemelor. Brevet nr. 91382/1986. Titular: *Institutul Politehnic*, Iași
3. Voicu M., Lazar C., Asandei D., Pal C., Leca M. 1986, Generator de semnale funcționale scurte. Brevet nr. 91690/1986. Titular: *Întreprinderea de Aparate de Măsurări și Control Industriale*, București
4. Bejan I., Voicu M., Pal C., Asandei D., Lazar C., 1985, Regulator extremal pentru bobine de stingere. Brevet nr. 92 134/1985. Titular: *Institutul Politehnic*, Iași
5. Bejan I., Balaban E., Voicu M., Pal C., Asandei D., Lazar C., Crăciun V., 1985, Aparat numeric pentru controlul și semnalizarea funcționării dispozitivelor de distribuție de la semnalele de precizie. Brevet nr. 87587/1985. Titular: *Întreprinderea „Ceahlău”*, Piatra Neamă

6. Bejan I., Iariu I., Voicu M., Pal C., Asandei D., Mihai I., Dugan V., 1982, Dispozitiv de reglare automat a tensiunii - curent pentru redresoare, Brevet nr. 79412/1982. Titular: *Uzina electrică*, Iași
7. Voicu M., 1980, Metodă și dispozitiv de identificare completă a proceselor automatizate liniare. Brevet nr. 73715/1980. Titular: *Institutul Politehnic*, Iași
8. Voicu M., Iariu I., Asandei D., 1979, Procedeu și dispozitiv de comandă a servomotoarelor asincrone. Brevet nr. 72589/1979. Titular: *Întreprinderea Electrotehnică*, București
9. Bejan I., Iariu I., Voicu M., Pal C., Asandei D., Grecu D., Andreia Gh., 1979, Dispozitiv de reglare automată a tensiunii redresoarelor cu autotransformatoare reglabile. Brevet nr. 72942/1979. Titular: *Întreprinderea Electrocentrale*, Borzești
10. Bejan I., Balaban G., Voicu M., 1973, Traductor de putere. Brevet nr. 56567/1973. Titular: *Institutul Politehnic*, Iași