A N E X A 5

UNIVERSITATEA „AUREL VLAICU” DIN ARAD
Facultatea de Ştiinţe Exacte
Domeniul de masterat: Matematică
Programul de studii : MODELARE MATEMATICĂ ÎN ŞTIINŢĂ ŞI TEHNOLOGIE

TABEL PRIVIND INDEPLINIREA INDICATORULUI

„Cadrele didactice titulare* au pregătirea iniţială, sunt doctori / doctoranzi şi cercetează în domeniul în care se includ disciplinele din postul ocupat.”

Nr. crt.	Gradul didactic, numele şi prenumele titularului vârsta / vechimea în învăţământul superior	Disciplinele din cadrul programului de studii incluse în postul didactic şi tipul activităţii desfăşurate (curs, seminar, lucrări, proiect)	Competenţa cadrului didactic titular în disciplinele din postul didactic			Constatări privind îndeplinirea indicatorului
			Universitatea/ facultatea/ specializarea absolvită	Specializarea la masterat/ doctorat	Maxim 6 articole reprezentative	
1.	Prof. dr. ing. Beiu Valeriu 69 / 42	Modele neuronale pentru inteligenţă artificială / Neural models for artificial intelligence	Universitatea Politehnica Bucureşti / Facultatea de Automatizări şi Calculatoare / Calculatoare Universitatea Catolică Leuven / Facultatea de Ştiinţe Aplicate / Ştiinţe Aplicate King’s College London şi Los Alamos National Lab / Reţele Neuronale	Masterat: Calculatoare Doctorat: Ştiinţe Aplicate Postdoc: Reţele Neuronale	1. M. Tache, W. Ibrahim, F. Kharbash, and V. Beiu, Reliability and Performance of Optimised Schmitt Trigger Gates, IET J Eng., vol. 2018, no. 8, Aug. 2018, pp. 735–744. https://doi.org/10.1049/joe.2018.0091 2. V. Beiu, and L. Daus, Reliability Bounds for Two Dimensional Consecutive Systems, Nano Comm. Nets., vol. 6, no. 3 (Sp. Iss. Bio. Info. & Comm. Tech.), Sep. 2015, pp. 145–152. https://doi.org/10.1016/j.nancom.2015.04.003 3. M. Tache, S. Hoara, V.-F. Dragoi, and V. Beiu, Green AI from Kirchhoff to Shannon, Intl. Conf. Comp. Comm. & Ctrl. (ICCC), pp. 433–443, May 16-20, 2022. https://doi.org/10.1007/978-3-031-16684-6_37 4. R.-M. Beiu, V.-F. Duma, and V. Beiu, The Latest on the Axon Initial Segment, Intl. Conf. Comp. Comm. & Ctrl. (ICCCC), pp. 136–141, May 8-12, 2018. https://doi.org/10.1109/ICCCC.2018.8390450 5. V. Beiu, Photonic Techniques for Brain Imaging, SPIE-SRLS Intl. Conf. Lasers	Îndeplinit

					Med. (ICLM), art. 108310I (pp. 1–4), Jul. 13-15, 2017. https://doi.org/10.1117/12.2282763 6. V. Beiu, L. Daus, N.-C. Rohatinovici, and V. E. Balas, Transport Reliability on Axonal Cytoskeleton, IEEE Intl. Conf. Eng. Modern Electr. Sys. (EMES), pp. 160–163, Jun. 1-2, 2017. https://doi.org/10.1109/EMES.2017.7980404	
	Conf. dr. Beniamin Bogoșel 37/13	Optimizarea formelor / Shape Optimization	Universitatea de Vest Timișoara / Facultatea de Matematică / Matematică	Masterat în Modelizare Analitică și Geometrică/ Doctorat in Matematică Aplicată	1. P. Antunes, B. Bogosel, Optimization of the Steklov-Lamé eigenvalues with respect to the domain, Journal of Differential Equations, 426, 1-35, 2025 https://doi.org/10.1016/j.jde.2025.01.043 2. B. Bogosel, D. Bucur, I. Fragala, The nonlocal isoperimetric problem for polygons: Hardy–Littlewood and Riesz inequalities, Matematische Annalen, 389, 1835-1882, 2024 https://doi.org/10.1007/s00208-023-02683-x 3. G. Allaire, M. Bihr, B. Bogosel and M. Godoy, Accessibility constraints in structural optimization via distance functions, Journal of Computational Physics, 484, 2023 https://doi.org/10.1016/j.jcp.2023.112083 4. P. Antunes, B. Bogosel, Parametric shape optimization using the support function, Computational Optimization and Applications, 82, 107-138, 2022 https://doi.org/10.1007/s10589-022-00367-x 5. B. Bogosel, E. Oudet, Partitions of Mimimal Length on Manifolds, Experimental Mathematics, 2017 https://doi.org/10.1080/10586458.2016.1223570	Îndeplinit
		Metodologia cercetării ştiinţifice/ Methodology of Scientific Research			1. G. Allaire, B. Bogosel, Optimizing supports for additive manufacturing, Structural and Multidisciplinary Optimization, 58, 2493-2515, 2018	

					https://doi.org/10.1007/s00158-018-2125-x 2. G. Allaire, M. Bihr, B. Bogosel, Support optimization in additive manufacturing for geometric and thermo-mechanical constraints, Structural and Multidisciplinary Optimization, 61, 2377-2399, 2020 https://doi.org/10.1007/s00158-020-02551-1 3. G. Allaire, B. Bogosel, M. Godoy, Topology optimization of supports with imperfect bonding in additive manufacturing, Structural and Multidisciplinary Optimization, 65, 2022, https://doi.org/10.1007/s00158-022-03284-z 4. G. Allaire, B. Bogosel, M. Godoy, Shape optimization of an imperfect interface: steady-state heat diffusion, Journal of Optimization Theory and Applications, 191, 169-201, 2021 https://doi.org/10.1007/s10957-021-01928-6 5. B. Bogosel, T. Giletti, A. Tellini, Propagation for KPP bulk-surface systems in a general cylindrical domain, Nonlinear Analysis, 2021 https://doi.org/10.1016/j.na.2021.112528	
	Conf. dr. Drăgoi Vlad-Florin 41/11	Data Science	Universitatea Claude Bernard Lyon, Franța / Facultatea de Științe și Tehnologii / Matematică	Masterat in Securitatea Sistemelor de Informații/ Doctorat in Informatica	1. Vlad-Florin Dragoi, Brice Colombier, Nicolas Vallet, Pierre-Louis Cayrel, Vincent Grosso, Full Key-Recovery Cubic-Time Template Attack on Classic McEliece Decapsulation. IACR Transactions on Cryptographic Hardware and Embedded Systems, 2025(1), 367-391. https://doi.org/10.46586/tches.v2025.i1.367-391 2. Vlad-Florin Dragoi, Brice Colombier, Pierre-Louis Cayrel, Vincent Grosso, Integer syndrome decoding in the presence of noise, Cryptography and Communications – Discrete- Structures boolean functions and sequences, vol. 16, no. 5, 2022. https://doi.org/10.1007/s12095-024-00712-3	Îndeplinit

					3. Vincent Grosso, Pierre-Louis Cayrel, Brice Colombier, Vlad-Florin Dragoi, Punctured Syndrome Decoding Problem Efficient Side-Channel Attacks Against Classic McEliece, Constructive Side-channel Analysis and Secure Design (COSADE), 2023. https://doi.org/10.1007/978-3-031-29497-6_9	
		Tehnici de simulare și modelare			1. Marilena Jianu, Leonard Daus, Vlad-Florin Dragoi, Valeriu Beiu, The Roots of the Reliability Polynomials of Circular Consecutive-k-out-of-n:F Systems, Mathematics, vol. 11, no. 20, 2023. https://doi.org/10.3390/math11204252 2. Vlad-Florin Dragoi, Valeriu Beiu, Which Coefficients Matter Most-Consecutive k-Out-of-n:F Systems Revisited, IEEE Transactions on Reliability, vol. 73, no. 3, 2024. https://doi.org/10.1109/TR.2024.3353908 3. Marilena Jianu, Leonard Daus, Vlad-Florin Dragoi, Valeriu Beiu, The Roots of the Reliability Polynomials of Circular Consecutive-k-out-of-n:F Systems, Mathematics, vol. 11, no. 20, 2023. https://doi.org/10.3390/math11204252	
	Prof. univ. dr. Moț Ghiocel 62 / 39	Capitole speciale de algebră	Universitatea ”Babeș-Bolyai” Cluj-Napoca / Facultatea de Matematica-Informatica	Doctor în Matematică	1. G. Moţ, A. Petruşel, On Iseki' strict fixed point theorem, Linear and Nonlinear Anal. 4 (2018), no. 1, 105–115. 2. G. Moț, C. L. Mihiț, On Orthogonal Polynomials, Theory and Applications of Mathematics & Computer Science, 8(2), (2018), 135-142. 3. C. L. Mihiț, G. Moț, G. Petrușel, Ćirić-Type Operators and Common Fixed Point Theorems, Mathematics 10 (2022), 1947.	Îndeplinit
		Analiză convexă			1. Teza de doctorat: „Unele implicații ale teoriei	

					generale a convexității în geometrie", Universitatea „Babeș Bolyai" Cluj Napoca, 1999, conducător ştiinţific prof. dr. Elena Popoviciu. 2. G. Moț, A. Petruşel, Local Fixed Point Theorems for Graphic Contractions in Generalized Metric Spaces, Theory and Applications of Mathematics & Computer Science, 8(1), 2018, 1-5. 3. C. L. Mihiț, G. Moț, A. Petruşel, Fixed Point Theory for Multi-Valued Feng-Liu-Subrahmanyan Contractions, Axioms 11 (2022), No. 10, 1-9. 4. G. Moț, C. L. Mihiț, Stability Properties for Multi-Valued Contractions in Complete Vector-Valued B-Metric Spaces, Mathematics 13 (2025), 3069.	
	Prof.univ.dr. Sorin Nădăban 57/34	Capitole speciale de analiză matematică	Universitatea de Vest din Tomișoara/ Facultatea de Matematică-Informatică/ Matematică	Doctorat in Matematica	1. S. Nădăban, Teorie spectrală pe spaţii Hilbert factor, teză de doctorat, susţinută în anul 2000 la Universitatea de Vest din Timișoara. 2. T. Binzar, F. Pater, S. Nădăban, Fuzzy bounded operators with application to Radon transform, Chaos, Solitons & Fractals, 141, Article number: 110359, 2020. 3. S. Nădăban, Fuzzy b-metric spaces, International Journal of Computers Communications & Control, 11(2) (2016), 273-281. 4. S. Nădăban, I. Dzitac, Some properties and applications of fuzzy quasi-pseudo-metric spaces, Informatica, 27 (1) (2016), 141-159. 5. S. Nădăban, Fuzzy continuous mappings in fuzzy normed linear spaces, International	Îndeplinit

					Journal of Computers Communications & Control, 10 (6) (2015), 834-842.	
		Logică fuzzy și logică cuantică			1. S. Nădăban, From Classical Logic to Fuzzy Logic and Quantum Logic: A General View, International Journal of Computers Communications & Control, 16(1) 2021. 2. S. Nădăban, Fuzzy Logic and Soft Computing—Dedicated to the Centenary of the Birth of Lotfi A. Zadeh (1921–2017), Mathematics, 10, 2022, 3216. 3. L. Popa, L. Sida, S. Nădăban, I. Dzitac, Why Need for Fuzzy Logic in High School?, Proceedings of the International Symposium „Research and Education in an Innovation Era", 7th Edition, Arad, May 17th-20th, 2018, pag. 100-104.	
		Optimizare matematică			1. B. Stanojevic, S. Nădăban, Empiric solutions to full fuzzy linear programming problems using the generalized "min" operator, Mathematics 2023, 11, 4864. 2. S. Dzitac, S. Nădăban, Soft computing for decision-making in fuzzy environments: A tribute to professor Ioan Dzitac, Mathematics, 9(14), 2021, 1701. 3. B. Stanojevic, M. Stanojevic, S. Nădăban, Reinstatement of the extension principle in approaching mathematical programming with fuzzy numbers, Mathematics, 9(11), 2021, 1272. 4. S. Nădăban, S. Dzitac, I. Dzitac, Fuzzy TOPSIS: A general view, Promoting Busines Analytics ond Quantitive Management of Technology: 4th International Conference on Information Technology and Quantitative Management (ITQM 2014), Procedia Computer Science, 91 (2016), 823-831.	

		Analiză funcţională fuzzy			1. S. Nădăban, D. Deac, (2024). Fuzzy Functional Analysis—A General View. In: Balas, V.E., Dzemyda, G., Belciug, S., Kacprzyk, J. (eds) Decision Making and Decision Support in the Information Era. Studies in Systems, Decision and Control, vol 534. Springer, Cham. https://doi.org/10.1007/978-3-031-62158-1_17 2. S. Nădăban, S. Dzitac, I. Dzitac, Fuzzy Normed Linear Spaces. In: Shahbazova S., Sugeno M., Kacprzyk J. (eds) Recent Developments in Fuzzy Logic and Fuzzy Sets. Studies in Fuzziness and Soft Computing, vol 391. Springer, 2020. 3. S. Nădăban, Fuzzy Continuous Mappings on Fuzzy F-Spaces, Mathematics 2022, 10, 3746. 4. T. Binzar, F. Pater, S. Nădăban, Fixed-Point Theorems in Fuzzy Normed Linear Spaces for Contractive Mappings with Applications to Dynamic-Programming, Symmetry, 14, 2022, 1966. 5. S. Nădăban, Fuzzy pseudo-norms and fuzzy F-spaces, Fuzzy Sets and Systems, 282 (2016), 99–114.	
		Proiect de cercetare în logică matematică			1. S. Nădăban, Fuzzy Logic and Soft Computing—Dedicated to the Centenary of the Birth of Lotfi A. Zadeh (1921–2017), Mathematics, 10, 2022, 3216. 2. S. Nădăban, From Classical Logic to Fuzzy Logic and Quantum Logic: A General View, International Journal of Computers Communications & Control, 16(1) 2021. 3. L. Popa, L. Sida, S. Nădăban, I. Dzitac, Why Need for Fuzzy Logic in High School?,	

					Proceedings of the International Symposium „Research and Education in an Innovation Era", 7th Edition, Arad, May 17th-20th, 2018, pag. 100-104.	
	Prof. dr. Mariana Nagy 63 /29	Analiza și prelucrarea datelor statistice	Universitatea „Politehnica" Timișoara / Facultatea de Automatizări și calculatoare	Științe economice /Doctor inginer	1. J.L. Miranda, M.Nagy, M.Casquilho, Decision Making and Robust Optimization for Medicines Shortages in the Pharmaceutical Supply Chains, (Chapter 7 in Advanced Studies in Multi-Criteria Decision Making), Chapman and Hall / CRC Press, New York, 2019, p.123-146 2. E.D.Popovici, D.G.Negru, T.Olariu, M.Nagy, S.Dinu, G.Oprisan, L.Zota, L.M.Baditoiu, Application of the susceptible–infected–recovered deterministic model in a GII.P17 emergent norovirus strain outbreak in Romania in 2015, Infection and Drug Resistance, 2019, 12, pp. 2543—2551 3. N.Popescu-Bodorin, M.Nagy, A.Barbulescu, Dismounting the so-called Condorcet Drivers Paradox, ITQM 2022 conference Procedia Computer Science, Vol. 214, 2022, Pages 1077-1081 4. R.Mareș; M.Nagy, I.Radu, Using the event tree analysis in the investigation of a work accident, 9th International Symposium on Occupational Health and Safety – SESAM 2019, October 3rd 2019, Petrosani, Romania	Îndeplinit
	Conf. Dr. Gașpar Octavian-Păstorel	Operatori pe spații Hilbert	Universitatea de Vest Timișoara	Doctor în Matematică	Analiză armonică pe spații de variabile aleatoare, Teză de Doctorat, Conducător Științific: Prof. Dr. Ștefan Balint, Universitatea de Vest, Timișoara, 2004, Domeniul: Matematică 1. P.Gașpar, On Random Normal Operators and Their Spectral Measures, J. Theor. Probab. 32 (4), 2019, 2088 – 2110.	Îndeplinit
		Teoria Dilatării și Modele Operatoriale			Analiză armonică pe spații de variabile aleatoare, Teză de Doctorat, Conducător Științific: Prof. Dr.	Îndeplinit

					Ștefan Balint, Universitatea de Vest, Timișoara, 2004, Domeniul: Matematică 1. D. Gaşpar, P. Gaşpar, Unitary model and Wold decompositions for bi - isometries, Int. Eq. And Op. Theory, 4 (2004), pag. 1 – 16. 2. D. Gaşpar, P. Gaşpar, An opertorial model for Hilbert B(X) - modules, Analele Univ. de Vest Timisoara, Ser. Matem. - Inform., vol. XL, fasc. 2, 2002, pag. 15 – 30 3. D. Gaşpar, P. Gaşpar, N. Lupa, Dilations on locally Hilbert spaces, Topics in Mathematics Computer Science and Philosophy, A Festschrift for Wolfgang W. Breckner on his 65th Anniversary, Presa Universitară Clujeană, 2008	
		Sisteme Stochastice și Predicție			Analiză armonică pe spații de variabile aleatoare, Teză de Doctorat, Conducător Științific: Prof. Dr. Ștefan Balint, Universitatea de Vest, Timișoara, 2004, Domeniul: Matematică 1. P. Gaşpar, On operator periodically correlated random fields, Operator Theory: Adv. And Appl., vol. 153, Birkhäuser Verlag, 2004, pag. 143 – 156 2. I. Valușescu, P. Gaşpar, On Uniformly bounded linearly Γ – stationary processes, Numerical Analysis and Applied Mathematics, International Conference on Numerical Analysis and Applied Mathematics, Rhodes, Grece, 19 – 25 September, 2010, ed. By Th. E. Simons and G. Psihoyios and Ch. Tsitouras, Melville, New York, 2010, AIP Conference Proceedings, 1281, 432 (2010). 3. P. Gaşpar, L. Sida, Periodically correlated multivariate second order random distribution fields and stationary cross correlatedness, J. Funct. Anal., vol. 267 (7), 2014, pp. 2253 – 2263. 4. P.Gaşpar, L. Popa, Stochastic mappings and	Îndeplinit

					random distribution fields II.Stationarity, Mediterr. J. Math., vol. 13 (4), pp. 2229 – 2252. 5. P.Gașpar, L. Popa, Stochastic mappings and random distribution fields III. Module propagators anduniformly bounded linear stationarity , J. Math. Anal. Appl., vol. 435 (2), 2016, pp. 1229 – 1240.	
	Conf. dr. Popa Lorena 51/28	Modelarea și optimizarea deciziilor	Universitatea de Vest din Timișoara / Facultatea de Matematică / Matematică-Fizică	Doctorat în Matematică	**1.** L.POPA, Centroid-Induced Ranking of Triangular Picture Fuzzy Numbers and Applications in Decision-Making, Symmetry, 16 (11), 1492, 2024. **2.** L. POPA, A new ranking method for trapezoidal intuitionistic fuzzy numbers and itsapplication to multi-criteria decision making, International Journal of Computers Communications & Control, 18(2), 5118, 2023. **3.** P. GAȘPAR, L. POPA, Stochastic Mappings and Random Distribution Fields : A correlation approach, Monatshefte fur Mathematik, vol 188, pp.87-107, 2019. **4.** L. POPA, L. SIDA, S. NĂDĂBAN, I. DZITAC, Why Need for Fuzzy Logic in High School?, Proceedings of the International Symposium “Research and Education in Innovation Era”,7th Edition, Universitatea Aurel Vlaicu din Arad, 17-20 mai 2018, Section Matematics and Computer Science, Editura Universității Aurel Vlaicu din Arad, pag. 100-104.	Îndeplinit
		Capitole speciale de geometrie			**1.** L. POPA, Geometrie -Teorie și probleme, Editura Mirton, Timișoara, 2020, ISBN 978-973-52-1947-5, (202 pag) **2.** L.POPA, Centroid-Induced Ranking of Triangular Picture Fuzzy Numbers and Applications in Decision-Making, Symmetry, 16 (11), 1492, 2024.	

					3. L.POPA, L. SIDA, S. NĂDĂBAN, Matrix representations of fuzzy quaternion numbers, Theory and Applications of Mathematics & Computer Science, 7(1), 59-71, 2017. **4.** L. SIDA, L. POPA, S. NĂDĂBAN, On fuzzy quaternion numbers, Proceedings of the International Symposium "Research and Education in Innovation Era",6th Edition, Universitatea Aurel Vlaicu din Arad, 8-10 decembrie 2016, Section Matematics and Computer Science, Editura Universităţii Aurel Vlaicu din Arad, pag. 116-119.	
1.	Prof. dr. Stoica Codruța Simona 55 / 25	Capitole speciale de teoria stabilităţii/ Special Chapters of Stability Theory	Universitatea de Vest din Timișoara/ Facultatea de Matematică/ Matematică Universitatea „Aurel Vlaicu" din Arad/ Facultatea de Științe Economice/ Finanțe Asigurări	Doctorat în Matematică	1. C. Stoica, Approaching the difference equations by means of lp asymptotic behaviours, AIP Conference Proceedings 3315, 400019, DOI: 10.1063/5.0286101 (2025) 2. C. Stoica, Muldowney class asymptotic properties: An overview, AIP Conference Proceedings 3094, 500043, DOI: 10.1063/5.0211015 (2024) 3. C. Stoica, On stochastic issues in the study of evolution equations, AIP Conference Proceedings 2849, 450030, DOI: 10.1063/5.0162302 (2023) 4. C. Stoica, An approach to evolution cocycles from a stochastic point of view, AIP Conference Proceedings 2425, 420029, DOI: 10.1063/5.0083066 (2022) 5. C. Stoica, Advances in the stability theory of evolution equations, AIP Conference Proceedings 2293, 420067, DOI: 10.1063/5.0026805 (2020)	Îndeplinit
		Modele matematice în economie/ Mathematical models in economics			1. C. Stoica, A general framework for splitting concepts for cocycles over generalized non-autonomous dynamical systems, Mathematical Problems in Engineering, DOI: 10.1155/2017/4790679 (2017) 1-8, ISSN 1024-123X	Îndeplinit

					2. C. Stoica, Approaching the discrete dynamical systems by means of skew-evolution semiflows, Discrete Dynamics in Nature and Society, DOI: 10.1155/2016/4375069 (2016) 1-10, ISSN 1026-0226 3. C. Stoica, On stochastic issues in the study of evolution equations, AIP Conference Proceedings 2849, 450030, DOI: 10.1063/5.0162302 (2023) 4. M. Pantea, C. Stoica, T. Cilan, R. Almasi, R. Lile, Study on the students' perception regarding the insertion in the accounting labor market, "Pavel Ciuce" Symposium, XVth Edition (2017) 332-347, Casa Cartii de Stiinta Publishing House, Colectia Economie, ISSN 2344-2239	
		Sisteme dinamice şi control optimal/ Dynamic Systems and Optimal Control			1. C. Stoica, On classes of dichotomy for skew-evolution semiflows associated to control systems, AIP Conference Proceedings 2116, 450047, DOI: 10.1063/1.5114514 (2019) 2. C. Stoica, On dichotomy and splitting issues for evolution equations, AIP Conference Proceedings 1978, 470070, DOI: 10.1063/1.5044140 (2018) 3. C. Stoica, A general framework for splitting concepts for cocycles over generalized non-autonomous dynamical systems, Mathematical Problems in Engineering, DOI: 10.1155/2017/4790679 (2017) 1-8, ISSN 1024-123X 4. C. Stoica, Approaching the discrete dynamical systems by means of skew-evolution semiflows, Discrete Dynamics in Nature and Society, DOI: 10.1155/2016/4375069 (2016) 1-10, ISSN 1026-0226 5. C.L. Mihit, C. Stoica, M. Megan, On uniform exponential splitting for noninvertible evolution operators in Banach spaces, Annals of the West University of Timi\c soara, Vol. LIII, Fascicle 2 (2016) 121-131, ISSN 1841-3293	Îndeplinit

					6. C. Stoica, Cocycles over non autonomous dynamical systems in Banach spaces, Essays on Mathematics and Statistics: Volume 5 (2015), Athens Institute for Education and Research, 65-72, ISBN 978-618-5065-77-5	
		Proiect de cercetare/ Research Project			Teza doctorat (A); 12 lucrări indexate ISI/BDI (C1-12); 12 lucrări în rev. şi vol. conf. (D1-12)	Îndeplinit
		Proiect de practică B/ Practice Project B			Teza doctorat (A); 12 lucrări indexate ISI/BDI (C1-12); 12 lucrări în rev. şi vol. conf. (D1-12)	Îndeplinit
		Elaborarea lucrării de disertaţie/ Internship for Writting the Master Thesis			Teza doctorat (A); 12 lucrări indexate ISI/BDI (C1-12); 12 lucrări în rev. şi vol. conf. (D1-12)	Îndeplinit
		Practică de specialitate/ Specialized practice			Teza doctorat (A); 12 lucrări indexate ISI/BDI (C1-12); 12 lucrări în rev. şi vol. conf. (D1-12)	Îndeplinit