

Anexa 2

• Productia stiintifica (perspectiva B)

Lucrari de tipul ISI A), B), C) cu CAT-A = 8pct, CAT-B = 4pct, CAT-C = 2pct, conform <http://informatica-universitaria.ro/getpfile/16/Anexa2-Informatica.pdf> din 6.Ian.2017

#	Lucrare / Jurnal	CAT	Numar Autori	Punctaj
1.	Dragos Gavrilut, Mihai Cimpoesu, Dan Anton, Liviu Ciortuz: <i>Malware detection using machine learning</i> , IMCSIT 2009: 735-741	C	4	1
2.	Dragos Gavrilut, Liviu Ciortuz: <i>Dealing with Class Noise in Large Training Datasets for Malware Detection</i> . SYNASC 2011: 401-407	C	2	2
3.	Mihai Cimpoeșu, Dragos Gavriluț and Adrian Popescu: <i>The proactivity of Perceptron derived algorithms in malware detection</i> , Journal in Computer Virology 2012, DOI: 10.1007/s11416-012-0164-1	B	3	4
4.	Cristina Vatamanu, Dragoș Gavriluț and Răzvan Benchea: <i>A practical approach on clustering malicious PDF documents</i> , Journal in Computer Virology 2012, DOI: 10.1007/s11416-012-0166-z	B	3	4
5.	Gavrilut Dragos , Cristina Vatamanu and Benchea Razvan; <i>Practical optimizations for perceptron algorithms in large malware datasets.</i> ; SYNASC 2012	C	3	2
6.	Gavrilut Dragos , Cristina Vatamanu and Benchea Razvan; <i>Optimized zero false positives perceptron training for malware detection..</i> ; SYNASC 2012	C	3	2
7.	Marius Barat, Bogdan Prelipcean, Dragos Gavrilut; <i>An Automatic Updating Perceptron-Based System for Malware Detection</i> ; 2013, SYNASC	C	3	2
8.	Marius Barat, Bogdan Prelipcean, Dragos Gavrilut; <i>A study on Common Malware Families Evolution in 2012</i> ; Journal in Computer Virology and Hacking Techniques 2013, DOI: 10.1007/s11416-013-0192-5	B	3	4
9.	Cristina Vatamanu, Dragos Gavrilut, Razvan Benchea; <i>Building a Practical and Reliable Classifier for Malware Detection</i> ; Journal in Computer Virology and Hacking Techniques 2013, DOI: 10.1007/s11416-013-0188-1	B	3	4
10.	Doina Cosovan, Razvan Benchea, Dragos Gavrilut; <i>A Practical Guide for Detecting JavaScript-based Malware using Hidden Markov Models and Linear Classifiers</i> ; SYNASC, 2014	C	3	2
11.	Barat Marius, Dumitru Bogdan Prelipcean, Dragos Gavrilut; <i>A Practical Approach on Cleaning-Up Large Data Sets</i> ; SYNASC, 2014	C	3	2
12.	Benchea Razvan, Dragos Gavrilut; <i>Combining Restricted Boltzmann Machine and One Side Perceptron for Malware Detection</i> ; International Conference on Conceptual Structures, Graph-Based Representation and Reasoning: 21st International Conference on Conceptual Structures, ICCS 2014	B	2	4

13.	Cristina Vatamanu, Doina Cosovan, Dragos Gavrilut, Henri Luchian; <i>A Comparative Study of Malware Detection Techniques Using Machine Learning Methods</i> ; International Conference on Information Systems Security, 2015	B	4	2
14.	Ciprian Oprisa, Dragos Gavrilut, George Cabau; <i>A Scalable Approach for Detecting Plagiarized Mobile Applications</i> ; Knowledge and Information Systems (KaIS), 2015	A	3	8
15.	Adrian Popescu, Bogdan Prelipcean, Dragos Gavrilut; <i>A Study on Techniques for Proactively Identifying Malicious URLs</i> ; SYNASC, 2015	C	3	2
16.	Cristina Vatamanu, Dragos Gavrilut, Razvan Benchea, Henri Luchian; <i>Feature Extraction using Genetic Programming with Applications in Malware Detection</i> ; SYNASC, 2015	C	4	1
17.	Prelipceanu Bogdan, Popescu Adrian, Dragos Gavrilut; <i>Improving Malware Detection Response Time with Behavior-Based Statistical Analysis Techniques</i> ; SYNASC, 2015	C	3	2
18.	Adrian Popescu, Dragos Gavrilut, Daniel Irimia; <i>A Practical Approach for Clustering Large Data Flows of Malicious URLs</i> ; Journal in Computer Virology and Hacking Techniques 2016, DOI: 10.1007/s11416-015-0239-x	B	3	4
19.	Dan Anton, Dragos Gavrilut, Alexandru Baetu and Adrian Popescu; <i>Detecting malicious URLs. A semi-supervised machine learning system approach</i> ; SYNASC, 2016	C	3	2
20.	Dragos Gavrilut, George Popoiu and Mihai-Razvan Benchea; <i>Identifying DGA-based botnets using network anomaly detection</i> ; SYNASC, 2016	C	3	2
Total (puncta din conferinte de tipul A si B: 34 pct)				56 pct

Punctaj minim necesar: **32 pct** (punctaj acumulat → **56 pct**)

Punctaj minim necesar din conferinte de tipul A si B: **16 pct** (punctaj acumulat din conferinte de tipul A si B → **34 pct**)

- **Impactul rezultatelor (perspectiva C)**

Citatii din lucrari de tipul ISI A), B), C) si D) cu CAT-A = 8pct, CAT-B = 4pct, CAT-C = 2pct si CAT-D = 1 pct, conform <http://informatica-universitaria.ro/getpfile/16/Anexa2-Informatica.pdf> din 6.Ian.2017

Lucrare: Malware Detection Using Perceptrons and Support Vector Machines		
Lucrare care citeaza	CAT	Punctaj
Eigenvalue analysis for metamorphic detection, Journal of computer virology (2014)	B	4
Better Malware Ground Truth: Techniques for Weighting Anti-Virus Vendor Labels, AISec '15 Proceedings of the 8th ACM Workshop on Artificial Intelligence and Security	A	8
Reviewer Integration and Performance Measurement for Malware Detection, DIMVA 2016	C	2
Using Machine Language Model for Mimimorphic Malware Detection, Information Security, 17th International Conference, ISC 2014, Hong Kong, China, October 12-14, 2014	B	4
Malware Detection with Computational Intelligence, Proceedings on the International Conference on Artificial Intelligence (ICAI)	C	2
Punctaj / max(1,NrAutori-2) (numar autori = 4) → 20 / max (1,4-2) =		10
Citatii care intra in categoria CAT-D		
On the Evaluation of Restricted Boltzmann Machines for Malware Identification, International Journal of Information Security Science, Vol 5, No 3 (2016), http://www.springer.com/computer/security+and+cryptology/journal/10207		
Barriers to Extending Malware Detection Research, 11th International Conference on Cyber Warfare and Security ICCWS2016		
Malware classification using filesystem footprints, Automation, Quality and Testing, Robotics (AQTR), 2016 IEEE International Conference		
Graph-based simulated annealing and support vector machine in Malware detection, Software Engineering (MySEC), 2011 5th Malaysian Conference		
Scalable platform for malicious content detection integrating machine learning and manual review, e-scholarship.org, https://www2.eecs.berkeley.edu/Pubs/TechRpts/2015/EECS-2015-194.pdf		
Header information in malware families and impact on automated classifiers, Malicious and Unwanted Software (MALWARE), 2010 5th International Conference		
CAT-D = 1 pct → Punctaj = 6 / max(1,NrAutori-2) (NrAutori = 4) → 6 / max (1,4-2) =		3

Lucrare: Malware Detection using Machine Learning		
Lucrare care citeaza	CAT	Punctaj
Generic Approach for Security Error Detection Based on Learned System Behavior Models for Automated Security Tests, Software Testing, Verification and Validation Workshops (ICSTW), 2013 IEEE Sixth International Conference	C	2
Ensemble based categorization and adaptive model for malware detection, Information Assurance and Security (IAS), 2011 7th International Conference	C	2
Evolving Computational Intelligence System for Malware Detection, CAiSE 2014 International Workshops, Thessaloniki, Greece, June 16-20, 2014. Proceedings (Advanced Information Systems Engineering Workshops)	A	8
A Taxonomy of Attacks and a Survey of Defence Mechanisms for Semantic Social Engineering Attacks, ACM Computing Surveys (CSUR) Volume 48 Issue 3, February 2016, http://www.bioxbio.com/if/html/ACM-COMPUT-SURV.html	A	8
Interactive Martingale Boosting, International Joint Conference on Artificial Intelligence	A	8
Advanced Information Systems Engineering Workshops, CAiSE 2014 International Workshops, Thessaloniki, Greece, June 16-20, 2014	A	8
Punctaj / max(1,NrAutori-2) (numar autori = 4) → 36 / max (1,4-2) =		18
Citatii care intra in categoria CAT-D		
Deformation Technology of malicious code, Computer Applications and software, 2012 - cnki.com.cn		
Application of Hidden Markov Model for classifying metamorphic virus, Advance Computing Conference (IACC), 2015 IEEE		
Identifying metamorphic virus using n-grams and Hidden Markov Model, Advances in Computing, Communications and Informatics (ICACCI), 2015 International Conference		
A Bio-Inspired Hybrid Artificial Intelligence Framework for Cyber Security, Book: Computation, Cryptography, and Network Security		
Optimization of anti-malware processing by automated correction of detection rules, US patent 8640245 B2		
A framework for detection of malicious software in Android handheld systems using machine learning techniques, Bachelor thesis: http://openaccess.uoc.edu/webapps/o2/bitstream/10609/40884/6/btorregrosaTFM0115memoria.pdf		
A review on mobile threats and machine learning based detection approaches, Digital Forensic and Security (ISDFS), 2016 4th International Symposium		
Classifying the Data Semantics of Patches, http://dspace.ucalgary.ca/handle/1880/49825		
Barriers to Extending Malware Detection Research, 11th International Conference on Cyber Warfare and Security ICCWS2016		
Linux virus detection program an application of machine learning and DS evidence theory, "Microcontroller and Embedded Systems", April 2014		
Convolutional neural networks for malware classification, theses - https://upcommons.upc.edu/handle/2117/91319		
Study of soft computing methods for large-scale multinomial malware types and families detection, World Conference on Soft Computing - https://sites.ualberta.ca/~reformat/wconsc2016/imagesP/WConSC2016-program.pdf		
CAT-D = 1 pct → Punctaj = 12/max(1,NrAutori-2) (NrAutori = 4) → 12 / max (1,4-2) =		6

Lucrare: Optimized Zero False Positives Perceptron Training for Malware Detection		
Lucrare care citeaza	CAT	Punctaj
Malware detection using bilayer behavior abstraction and improved one-class support vector machines, International Journal of Information Security (2016), http://www.springer.com/computer/security+and+cryptology/journal/10207 , ISSN: 16155262	B	4
Punctaj / max(1,NrAutori-2) (numar autori = 3) → 4 / max (1,3-2) =		4
Citatii care intra in categoria CAT-D		
It has a EULA, it must be legit, Virus Bulletin, 2013		
CAT-D = 1 pct → Punctaj = 1 / max(1,NrAutori-2) (NrAutori = 3) → 1 / max (1,3-2) =		1

Lucrare: A Practical Approach on Clustering Malicious PDF Documents		
Lucrare care citeaza	CAT	Punctaj
Locality-sensitive hashing optimizations for fast malware clustering, Intelligent Computer Communication and Processing (ICCP)	C	2
Detection of malicious PDF files and directions for enhancements: A state-of-the art survey, Computers & Security, Volume 48, February 2015, Pages 246–266, ISSN: 01674048	B	4
Modeling discovery and removal of security vulnerabilities in software system using priority queueing models, Journal of computer virology (2014)	B	4
Malware clustering using suffix trees, Journal of computer virology (2014)	B	4
A study on the service quality of SMEs management consulting affecting the perceived management performance in mobile communication environments, Journal of computer virology (2014)	B	4
Punctaj / max(1,NrAutori-2) (numar autori = 3) → 18 / max (1,3-2) =		18
Citatii care intra in categoria CAT-D		
ALPD: Active learning framework for enhancing the detection of malicious PDF files, Intelligence and Security Informatics Conference (JISIC), 2014 IEEE Joint		
Scalable platform for malicious content detection integrating machine learning and manual review, escholarship.org, https://www2.eecs.berkeley.edu/Pubs/TechRpts/2015/EECS-2015-194.pdf		
Keeping pace with the creation of new malicious PDF files using an active-learning based detection framework, Security Informatics 2016 5:1		
Detection of APT Malware through External and Internal Network Traffic Correlation. Master's thesis, Univ. of Twente.		
Malicious code detection in compound documents based on spectral analyses, Tsinghua University (Natural Science) 2013, (12) 1713-1718 + 1725		
Malicious PDF – A Review, International Research Journal of Engineering and Technology (IRJET), Volume: 03 Issue: 08 Aug-2016 , p-ISSN: 2395-0072, e-ISSN: 2395 -0056		
CAT-D = 1 pct → Punctaj = 6 / max(1,NrAutori-2) (NrAutori = 3) → 6 / max (1,3-2) =		6

Lucrare: The Proactivity of Perceptron Derived Algorithms in Malware Detection		
Lucrare care citeaza	CAT	Punctaj
A token-based authentication security scheme for Hadoop distributed file system using elliptic curve cryptography, Journal of computer virology (2015)	B	4
A threat monitoring system in enterprise networks with smart mobiles, International Journal of Security and Networks	C	2
Punctaj / max(1,NrAutori-2) (numar autori = 3) → 6 / max (1,3-2) =		6
Citatii care intra in categoria CAT-D		
Large Iterative Multitier Ensemble Classifiers for Security of Big Data, IEEE Transactions on Emerging Topics in Computing (Volume: 2, Issue: 3, Sept. 2014)		
Data Security Scheme for Multiple Attribution Information in Big Data Environment, Indian Journal of Science and Technology (2015)		
CAT-D = 1 pct → Punctaj = 2 / max(1,NrAutori-2) (NrAutori = 3) → 2 / max (1,3-2) =		2

Lucrare: Building a Practical and Reliable Classifier for Malware Detection		
Lucrare care citeaza	CAT	Punctaj
A token-based authentication security scheme for Hadoop distributed file system using elliptic curve cryptography, Journal of computer virology (2015)	B	4
An Ensemble Cost-Sensitive One-Class Learning Framework for Malware Detection, International Journal of Pattern Recognition and Artificial Intelligence (2015)	B	4
Punctaj / max(1,NrAutori-2) (numar autori = 3) → 8 / max (1,3-2) =		8
Citatii care intra in categoria CAT-D		
Data Security Scheme for Multiple Attribution Information in Big Data Environment, Indian Journal of Science and Technology (2015)		
INTRODUCTION OF AN AUTHENTICATION METHOD FOR SECURING DATA IN HADOOP SYSTEM, International Journal of Innovative Technology and Research		
CAT-D = 1 pct → Punctaj = 2 / max(1,NrAutori-2) (NrAutori = 3) → 2 / max (1,3-2) =		2

Lucrare: Combining Restricted Boltzmann Machine and One Side Perceptron for Malware Detection		
Lucrare care citeaza	CAT	Punctaj
MtNet: a multi-task neural network for dynamic malware classification, DIMVA 2016 Proceedings of the 13th International Conference on Detection of Intrusions and Malware, and Vulnerability Assessment - Volume 9721	C	2
Punctaj / max(1,NrAutori-2) (numar autori = 2) → 2 / max (1,2-2) =		2
Citatii care intra in categoria CAT-D		
Deep neural network based malware detection using two dimensional binary program features, Malicious and Unwanted Software (MALWARE), 2015 10th International Conference		
CAT-D = 1 pct → Punctaj = 2 / max(1,NrAutori-2) (NrAutori = 2) → 1 / max (1,2-2) =		1

Lucrare: A Practical Guide for Detecting JavaScript-based Malware using Hidden Markov Models and Linear Classifiers		
Lucrare care citeaza	CAT	Punctaj
Semi-automated verdicts assignment for potentially malicious programs, Intelligent Computer Communication and Processing (ICCP)	C	2
Punctaj / max(1,NrAutori-2) (numar autori = 3) → 2 / max (1,3-2) =		2

Rezumat perspectiva C.

Lucrare	Pct citari CAT A,B,C	Pct Citari CAT-D
Malware Detection Using Perceptrons and Support Vector Machines	10	3
Malware Detection using Machine Learning	18	6
Optimized Zero False Positives Perceptron Training for Malware Detection	4	1
A Practical Approach on Clustering Malicious PDF Documents	18	6
The Proactivity of Perceptron Derived Algorithms in Malware Detection	6	2
Building a Practical and Reliable Classifier for Malware Detection	8	2
Combining Restricted Boltzmann Machine and One Side Perceptron for Malware Detection	2	1
A Practical Guide for Detecting JavaScript-based Malware using Hidden Markov Models and Linear Classifiers	2	0
Total	68	21

Punctaj minim necesar: **48 pct** (punctaj acumulat → **68 pct** (daca nu luam in considerare citatiile de tipul CAT-D, **89 pct** daca luam in considerare sii CAT-D)

Punctaj minim necesar din citari de la conferinte de tipul A si B: **12 pct** (punctaj acumulat din citari de la conferinte de tipul A si B → **56 pct**)

- **Performanta academica (perspectiva D)**

conform <http://informatica-universitaria.ro/getpfile/16/Anexa2-Informatica.pdf> din 6.Ian.2017

Indicator	Punctaj
Publicarea unui curs in format electronic (2 pct per curs) - Curs POO (https://sites.google.com/site/fiicoursepoo/curriculum) - Curs Android (https://sites.google.com/site/fiiandroidprogramming/) - Curs Python (https://sites.google.com/site/fiipythonprogramming/)	6
Organizare de evenimente in calitate de membru in comitetul de organizare (1 pct / ev) - ECODAM 2012 - http://profs.info.uaic.ro/~summerschool/2012/committee.php - ECODAM 2013 - http://profs.info.uaic.ro/~summerschool/2013/committee.php - ECODAM 2014 - http://profs.info.uaic.ro/~summerschool/2014/committee.php - ECODAM 2015 - http://profs.info.uaic.ro/~summerschool/2015/committee.php - ECODAM 2016 - http://profs.info.uaic.ro/~summerschool/summerschool/public/ - EVOLVE 2015 - http://www.evolve-conference.org/2015-tracks-sessions/evolving-from-natural-computing-and-data-mining	6
Brevete si inventii (8 / max (1, nr_autori – 2)) - Patent: Privacy protection for mobile devices, US 9292694, Aplicacion number: 13/837,166, 6 inventatori	2
Keynote (invited speaker) la universitati - Goldsmiths University of London, pozitia 789 conform http://www.webometrics.info/en/search/Rankings/Goldsmith , atestat prin: http://www.doc.gold.ac.uk/~mas01ds/dsmc/dsrt/talks.htm	1
Keynote (invited speaker) la conferinte / evenimente locale - Inista (CAT-C)- http://www.inista.org/inista16/speakers.html (2pct) - Ticia (eveniment local) - http://software.ucv.ro/ticia2016/programTiCIA2016.htm (1pct)	3
Director (coordonator responsabil) al unui proiect a carui valoare intrata in institutie este de peste 200.000 Euro - CIPSEC – Enhancing Critical Infrastructure Protection with innovative SECurity framework Horizon 2020, (responsabil proiect din partea Bitdefender) – Mai.2016 – Aprilie.2019 , 1.653.750 RON (aprox. >350.000 Euro)	8
Membru al unui proiect a carui valoare intrata in institutie este de peste 200.000 Euro - B-Have pentru dispozitive mobile, PN CDI 2, Mai.2013 – Aprilie.2015, 7.185.669 RON (aprox. >1.500.000 Euro)	4
Consolidarea de echipe de cercetare (Punctaj = nr. persoane * nr.ani de activitate comune pe echipe de minimum 3 persoane) → 5 persoane (Razvan Benchea, Vatamanu Cristina, Popescu Adrian, Prelipcean Bogdan si Anton Dan Gabriel, intre 2012 si 2015 – 4 ani) - Benchea Razvan (9 lucrari ISI scrise impreuna, 2 lucrari neindexate core intre anii 2012 si 2016) perioada in care a fost doctorand la UAIC - <u>Vatamanu Cristina</u> – doctorand la UAIC → 7 lucrari scrise impreuna, 2 lucrari neindexate core intre anii 2012 si 2015 - <u>Popescu Adrian</u> – doctorand la UAIC → 5 lucrari scrise impreuna intre anii 2012 si 2016) perioada in care a fost doctorand la UAIC - <u>Prelipcean Bogdan</u> – doctorand la UAIC → 5 lucrari scrise impreuna intre anii 2013 - 2015 - <u>Anton Dan Gabriel</u> – doctorand la UAIC → 3 lucrari scrise impreuna intre anii 2009 - 2016	20
Total	50

Rezumat rezultate (perspectivivele B,C si D)

Perspectiva	Punctaj minim necesar	Punctaj acumulat
Productia stiintifica (perspectiva B)	32 pct pentru conferentiar/ CP II	56 pct
	16 pct din lucrari de cel putin categoria B	34 pct
Impactul rezultatelor (perspectiva C)	48 pct pentru conferentiar/ CP II	68 pct sau 89 pct daca consideram si citatiile de categorie D
	12 pct din forumuri de minim tip B	56 pct
Performanta academica (perspectiva D)	36 pct pentru conferentiar/ CP II	50 pct
Total	116 pct	174 pct sau 195 pct daca consideram si citatiile de categorie D