

Βασίλης Νικολαΐδης

Ο Βασίλης Νικολαΐδης είναι μόνιμος Αναπληρωτής Καθηγητής του Τμήματος Λογιστικής και Χρηματοοικονομικής του Πανεπιστημίου Πελοποννήσου. Έχει σπουδές στην Επιστήμη Υπολογιστών (Πτυχίο Bachelor of Science στην Επιστήμη Υπολογιστών, Magna cum Laude από το Western New England College και Master of Science in Engineering στην Επιστήμη Υπολογιστών από το Johns Hopkins University) ενώ το Διδακτορικό του, που ολοκληρώθηκε στο Πανεπιστήμιο Πατρών, αφορούσε την ανάπτυξη μεθόδων Αναγνώρισης Προτύπων και εφαρμογή τους σε προβλήματα Μη-Καταστροφικού Ελέγχου (MKE). Έχει πληθώρα δημοσιεύσεων σε επιστημονικά περιοδικά, συμμετοχές σε επιστημονικά συνέδρια, έχει επιμεληθεί ένα ακαδημαϊκό σύγγραμμα καθώς και συγγράψει ένα αυτόνομο ακαδημαϊκό σύγγραμμα. Στο παρελθόν έχει δραστηριοποιηθεί τόσο στον ιδιωτικό όσο και στον δημόσιο τομέα. Κατά τη διάρκεια της δραστηριοποίησης του στον ιδιωτικό τομέα έχει αναπτύξει εργαλεία λογισμικού ανάλυσης δεδομένων τα οποία χρησιμοποιούνται από διάφορους δημόσιους και ιδιωτικούς φορείς διεθνώς και αναφέρονται σε πληθώρα ερευνητικών αποτελεσμάτων και δημοσιεύσεων. Μεταξύ αυτών έχει σχεδιάσει και αναπτύξει τυποποιημένες (off-the-shelf) λύσεις για απεικόνιση, επεξεργασία, ανάλυση, ταξινόμηση και αναγνώριση προτύπων σε δεδομένα. Οι εφαρμογές αυτές παρέχουν δυνατότητες αυτόματης ή καθοδηγούμενης προ-επεξεργασίας δεδομένων, εξαγωγής χαρακτηριστικών σημάτων, εφαρμογής φίλτρων, εντοπισμού είδους / θέσης πηγών (location), ποικιλία μεθόδων ομαδοποίησης / ταξινόμησης δεδομένων με ή χωρίς επίβλεψη (με διάφορες τεχνικές μηχανικής μάθησης μεταξύ αυτών και μεθόδων βασισμένων σε νευρωνικά δίκτια), αποθήκευση εκπαιδευμένων σχημάτων (με αυτόματη επανεφαρμογή όλων των βημάτων προ-επεξεργασίας κλπ. κατά την εφαρμογή τους σε νέα δεδομένα), στατιστική ανάλυση κλάσεων, οδηγούς (wizards) για την υποβοήθηση της ανάλυσης, ποικιλία μεθόδων απεικόνισής (visualization) κ.α., απευθύνονται κυρίως σε δεδομένα που αφορούν προβλήματα διάγνωσης και MKE αλλά έχουν εφαρμοστεί και στην ανάλυση άλλων τύπων δεδομένων. Επιπρόσθετα είχε αναπτύξει και εξειδικευμένες (custom) εφαρμογές για παρεμφερή προβλήματα σε κάθετες αγορές, ενώ πλέον συμμετέχει ενεργά στην ανάπτυξη σχετικών εργαλείων ανοιχτού λογισμικού.

Δημοσιεύσεις σε επιστημονικά περιοδικά:

T.P.Philippidis, V.N.Nikolaidis, and A.A.Anastassopoulos (1998), “Damage characterization of carbon/carbon laminates using neural network techniques on AE Signals”, Non Destructive Testing & Evaluation International (NDT and E International), Volume 31, Issue 5, pp. 329-340

A.A.Anastassopoulos, V.N.Nikolaidis and T.P.Philippidis (1999), “A Comparative Study of Pattern Recognition Algorithms for Classification of Ultrasonic Signals”, Neural Computing & Applications, Vol. 8, No.1. pp. 53-66.

T. P. Philippidis , V. N. Nikolaidis, J. Kolaxis (1999), “Unsupervised Pattern Recognition Techniques for Failure Prediction of Composites”, Journal of Acoustic Emission, Vol. 17 No.1-2.

N. Tsimogiannis, V. N. Nikolaidis, A. A. Anastassopoulos, P. F. Filho (2002), “Hydrogen Cylinder Acoustic Emission Testing and Data Evaluation with Supervised Pattern Recognition”, NDT.net Special Acoustic Emission Issue, Vol. 7 No.09.

A. Anastopoulos, D. A. Kouroussis, V. N. Nikolaidis, A. Proust, A. G. Dutton, M. Blanch, L. E. Jones, P. Vionis, D. J. Lekou, D. R. V. van Delft, P. A. Joosse, T. P. Philippidis, T. Kossivas, G. Fernando (2002), "Structural Integrity Evaluation Of Wind Turbine Blades Using Pattern Recognition Analysis On Acoustic Emission Data", Journal of Acoustic Emission, Vol. 20, pp 229-237.

A.Ifantis, V.Nikolaidis, G.Economou (2006), "An application of Pattern Recognition principles for the Investigation of Patterns in Geoelectrical Signals related to Earthquakes in Western Greece, WSEAS Transactions on Signal Processing, Issue 3, Vol. 2, ISSN 1790-5022, pp 364-371.

A.Ifantis, V.Nikolaidis, G.Economou (2006), "An Application of Pattern Recognition techniques for the Analysis of Geoelectrical Signals in relation to the earthquake activity of Western Greece", WSEAS Transactions on Signal Processing, Issue 4, Vol. 2, ISSN 1790-5022, p 429.

S.Spanou, A.Tiniakou, V.Nikolaidis, Th.Georgiadis (2007), "Comparative study of protected areas in Greece: The case-study of three littoral Pinus pinea (stone pine) forests", Fresenius Environmental Bulletin, Volume 16 – No. 11a – 2007, pp 1335-1344.

S. Stavroyiannis, I. Makris, and V. Nikolaidis (2009), "On the closed form solutions for non-extensive Value at Risk", Physica A, Vol. 388 issue 17, doi:10.1016/j.physa.2009.05.002, pp 3536-3542.

S.Stavroyiannis, I.Makris, V.Nikolaidis (2010), "Non-extensive properties, multifractality, and inefficiency degree of the Athens Stock Exchange General Index", International Review of Financial Analysis 19, doi: 10.1016/j.irfa.2009.11.005, pp 19–24.

Nikolaidis V., Makris I.A. and Stavroyiannis S. (2010), "Prediction of exporting ability using company characteristic data", Journal of European Economy, ISSN 1684-906X, Vol 9, No 6, 2010, pp. 123-136.

Makris I.A., Nikolaidis V., and Stavroyiannis S. (2010), "A Discussion About Indicators And Predictors Of Firm Performance: The Case Of Food Products And Beverages Industry In Current Economic Crisis", Global Business and Economics Anthology, Volume II, December 2010.

Nikolaidis V., Makris I.A., and Stavroyiannis S. (2010), "Associating firm performance with past financial data using supervised classifiers", Global Business and Economics Anthology, Volume II, Issue 1, December 2010, pp 230-241.

S. Stavroyiannis, V.Nikolaidis and I.Makris (2011), "On the multifractal properties and the local multifractality sensitivity index of euro to Japanese yen foreign currency exchange rates", Global Business and Economics Review, Vol. 13, No. 1, 2011 pp. 93-103.

IA Makris, VN Nikolaidis, S Stavroyiannis (2012), "Identifying factors affecting firm performance: the role of exporting activity on Greek industry", International Journal of Business and Globalisation 9 (1), 2012, pp 59-69.

S Stavroyiannis, I Makris, V Nikolaidis, L Zarangas (2012), "Econometric modeling and value-at-risk using the Pearson type-IV distribution", International Review of Financial Analysis 22, pp 10-17.

VN Nikolaidis, IA Makris, S Stavroyiannis (2013), "ANS-based preprocessing of company performance indicators", Global Business and Economics Review 15 (1), pp. 49-58.

S Stavroyiannis, I Makris, V Nikolaidis, L Zarangas (2013), "Value-at-risk for the long and short trading position with the Pearson type-IV distribution", Global Business and Economics Review 15 (1), pp. 14-27.

IA Makris, VN Nikolaidis, S Stavroyiannis (2013), "Identifying stocks' characteristics before market crashes: the case of the Athens stock exchange", Global Business and Economics Review 15 (1), pp. 76-87.

Makris I.A. and Nikolaidis V. (2015), "Discussing the consistency of the Euro area: ten years after, is there a real integration?", Global Business and Economics Review 17 (3), pp. 280-297.
P21.

Ilias A Makris, Vasilis Nikolaidis, Stavros Stavroyiannis (2016) "Economic Growth and Exporting Activity: An Empirical Analysis on Greek Industry", International Journal of Economics & Business Administration, Vol 4. Issue 2, pp. 41-52.

Nikolaidis, V. N., (2021) The nnlib2 library and nnlib2Rcpp R package for implementing neural networks. Journal of Open Source Software, 6(61), 2876, <https://doi.org/10.21105/joss.02876>.

Klimentia Kottaridi, Milionis Anna, Demopoulos Vasilis, Rigakou Aimilia, Nikolaidis Vasileios, (2023) A regression analysis method for the prediction of olive oil sensory attributes, Journal of Agriculture and Food Research, Vol. 12, 100555, ISSN 2666-1543, <https://doi.org/10.1016/j.jafr.2023.100555>.

Kottaridi, K., Milionis, A., Demopoulos, V., Nikolaidis, V., Tsalgatidou, P.C., Tsafouros, A., Kotsiras, A., & Vithoulkas, A. (2023). Comparative Analysis of Machine Learning Classification Algorithms for predicting Olive Anthracnose Disease. Preprints. <https://doi.org/10.20944/preprints202308.0073.v1> (submitted for review and publication, this copy is not peer reviewed).

Nikolaidis, Vassilios and Ilias A Makris (2023) "Using Decision Trees to Examine the Impact of Various Indicators in Company Performance at the Aftermath of an Economic Crisis", Global Business & Economics Anthology, ISSN:1553–1392, Volumes I & II, December 2023, pp 33-47.

Klimentia Kottaridi, Anna Milionis, Vasilis Demopoulos, Vasileios Nikolaidis, Polina C. Tsalgatidou, Athanasios Tsafouros, Anastasios Kotsiras, Alexandros Vithoulkas (2024) "Comparative analysis of machine learning classification algorithms for predicting olive anthracnose disease", Journal of Autonomous Intelligence, Volume 7 Issue 5, doi: 10.32629/jai.v7i5.1466.

Συνέδρια:

V.Nikolaidis, A. Anastassopoulos, A. Tsimogiannis, D. Kouroussis (2001), "Artificial Intelligence and Neural Networks for the Analysis of Acoustic Emission Signals from Metallic Structures", Proceedings of the 3rd National Conference of the Hellenic Society of Non-Destructive Testing

(HSNT), entitled: "NDT: Experience, Applications, Innovations", June 9, Thessaloniki, Greece, pp. 107-113. (in Greek)

A. Anastassopoulos, D. Kouroussis, V. Nikolaidis, A. Proust, A. G. Dutton, M. Blanch, P. Vionis, D. Lekou, D. R. V. van Delft, P. Joosse, T. Philippidis, T. Kossivas, G. Fernando (2002), "Structural Integrity Evaluation of Wind Turbine Blades Using Pattern Recognition Analysis on Acoustic Emission Data", Proceedings of EWGAE 2002, Prague, Czech Republic, 11-13 September.

M. J. Blanch, D. A. Kouroussis, A. A. Anastassopoulos, V. N. Nikolaidis, A. Proust, A. G. Dutton, L. E. Jones, P. Vionis, D. J. Lekou, D. R. V. van Delft, P. A. Joosse, T. P. Philippidis, T. Kossivas, G. Fernando (2002), "Damage Classification of Acoustic Emission using AEGIS Pattern Recognition Software From Ten Small Wind Turbine Blade Tests", (Poster), Global Windpower 2002, Paris, France, 2-5 April.

M. J. Blanch, D. A. Kouroussis, A. A. Anastassopoulos, V. N. Nikolaidis, A. Proust, A. G. Dutton, L. E. Jones, P. Vionis, D. J. Lekou, D R V van Delft, P. A. Joosse, T. P. Philippidis, T Kossivas, G Fernando (2002), "Analysis Of Acoustic Emission, Acousto-Ultrasonic And Infra Red Thermography Data from Ten Small Wind Turbine Blade Tests", Global Windpower 2002, Paris, France, 2-5 April.

A.Ifantis, V.Nikolaidis, G.Economou (2006), "A New Approach to Investigate the existence of patterns in Geoelectrical Signals related to Seismicity of Western Greece, using supervised pattern recognition", Proceedings of the 8th WSEAS Int. Conference on Automatic Control, Modeling and Simulation, Prague, Czech Republic, March 12-14, (pp 364-369).

A.Ifantis, V.Nikolaidis, G.Economou (2006), "An Application of Pattern Recognition techniques for the Investigation of Similarities in Geoelectrical Signals related to major earthquakes in Western Greece", Proceedings of the 6th WSEAS Int. Conf. on Multimedia Systems And Signal Processing, Hangzhou, China, April 16-18.

A.Ifantis, V.Nikolaidis, G.Economou (2007), "An Algorithmic Investigation Of Power Spectrum Features Applied To Geoelectric Field Signals And Seismicity Information", Proceedings of the Fourth IASTED International Conference Signal Processing, Pattern Recognition, and Applications (SPPRA 2007), ISBN 978-0-88986-646, Innsbruck, Austria, Year of Publication: 2007, pp 228-232.

Ilias A. Makris, Vasilios N. Nikolaidis, Stavros Stavroyiannis (2008), "Firm Size and Economic Behaviour: The Case of Food Products Sector", Proceedings of the International Conference on Applied Business & Economics (ICABE 2008), Thessaloniki, Greece, p. 63

Vasilios N. Nikolaidis , Ilias A. Makris, Stavros I. Stavroyiannis (2009), "Prediction of exporting ability using company characteristic data", Proceedings of the International Conference on Applied Economics 2009 (ICOAE 2009), Kastoria, Greece, May 27-30, pp 469-476.

Apostolos Ifantis and Vasilios Nikolaidis (2009), "Extraction and selection of geoelectrical data features", Proceedings of the 16th International Conference on Digital Signal Processing (DSP 2009), Santorini, Greece, July 5-7, 978-1-4244-3298-1/09.

I. A. Makris, S. Stavroyiannis, V. Nikolaidis (2009), "Economic Growth and Exporting Activity: An empirical analysis on Selected Industrial Sectors", Proceedings of International Conference on Applied Business & Economics (ICABE 2009), Book of Abstracts, p. 128, Kavala, Greece, October 1-3.

S. Stavroyiannis, V. Nikolaidis, I. Makris (2010) "High Frequency Dynamics and Local Multifractality of Euro to Japanese Yen Foreign Currency Exchange Rates", Business and Economics Society International Conference, Athens, Greece, p.27.

I. Makris, S. Stavroyiannis, V. Nikolaidis (2010), "Financial Performance During Economic Distress: The Case of Food Products and Beverages Industry", Business and Economics Society International Conference, Athens, Greece, p.30.

V.Nikolaidis, I.Makris & S.Stavroyiannis (2010), "Associating Firm Performance with Financial Data Using Supervised Classifiers", Business and Economics Society International Conference, Athens, Greece, p.33.

V.Nikolaidis, I.Makris & S.Stavroyiannis (2011), "ANS-based preprocessing of company performance indicators", to be presented in Business and Economics Society International Conference, Split, Croatia, July 6-9, 2011.

I.Makris, V.Nikolaidis, & S.Stavroyiannis (2011), "Identifying Stocks' Characteristics, before Market Crashes: The Case of Athens Stock Exchange", Business and Economics Society International Conference, Split, Croatia, July 6-9, 2011.

S. Stavroyiannis, I. Makris, V. Nikolaidis, and L. Zarangas (2011), "VALUE-AT-RISK FOR THE LONG AND SHORT TRADING POSITION WITH THE PEARSON TYPE-IV DISTRIBUTION", Business and Economics Society International Conference, Split, Croatia, July 6-9.

V.Nikolaidis, N.Zacharias, S.Stavroyiannis, A. Oikonomou (2016) "Classification Analyses of Byzantine Glass Tesserae", 41st International Symposium on Archaeometry (ISA), 15 – 21 May 2016, Kalamata, Greece.

KI. Kottaridi, V.Demopoulos, A.Sidiropoulos, D.Ihara, V.Nikolaidis, D.Antonopoulos (2021) "A Risk Assessment Tool for the Contamination of Aflatoxins on Dried Figs based on Machine Learning Algorithms", ICDAAF 2021: 15. International Conference on Data Analytics in Agriculture and Food, December 16-17, 2021, Barcelona, Spain.

Nikolaidis, V., and Makris, I., (2023), "Examination of the effects of economic crises on company performance using tree-based machine-learning methods", 40th Business and Economics Society International, Florence, 6-9 July 2023, abstract p.51

Βιβλία (Συγγραφή):

Νικολαΐδης, Β. (2022). Προγραμματισμός σε R. Η γλώσσα R, το οικοσύστημα και οι δυνατότητές της, Κάλιππος, Ανοικτές Ακαδημαϊκές Εκδόσεις, <http://dx.doi.org/10.57713/kallipos-100>, ISBN 978-618-5667-90-0.

Βιβλία (Επιμέλεια):

Earl McKinney, David M. Kroenke, "Εισαγωγή στα Πληροφοριακά Συστήματα Διοίκησης" ("Processes, Systems, and Information: An Introduction to MIS, 2nd Edition").

Τεχνικές αναφορές και άλλο συνοδευτικό υλικό:

V.N.Nikolaidis (1994), "Classification of defects in composites using artificial neural systems". University of Patras, Mechanical Engineering Department, Applied Mechanics Section.

V.N.Nikolaidis and T.P.Philippidis (1996), "Quality Inspection Of Lenses, an image recognition application", University of Patras, Mechanical Engineering Department, Applied Mechanics Section.

V.N.Nikolaidis, D.A.Kourousis, A.A.Anastassopoulos (2000), "Aegis Software Manual", Technical Report Ref: TR-015-10/2000.

Noesis Users Manual, Envirocoustics SA (2003).

Noesis Software Documentation, Manuals and Online Help (v.1.0 – v.4.5), Envirocoustics SA.

V.N.Nikolaidis (2020) "nnlib2Rcpp: A Collection of Neural Networks", R package reference Manual, <https://cran.r-project.org/web/packages/nnlib2Rcpp/nnlib2Rcpp.pdf>

V.N.Nikolaidis (2021) "The nnlib2 C++ library and nnlib2Rcpp R package for Artificial Neural Networks.", R package vignette, <https://cran.r-project.org/web/packages/nnlib2Rcpp/vignettes/intro.pdf>

V.N.Nikolaidis (2024) "nnlib2Rcpp: A Tool for Creating Custom Neural Networks in C++ and using Them in R", <https://cran.r-universe.dev/nnlib2Rcpp/doc/manual.html>

Επαγγελματική δραστηριότητα στο σχεδιασμό και ανάπτυξη λογισμικού:

Σχεδιασμός και ανάπτυξη λογισμικού Noesis: αποκλειστικός σχεδιαστής και developer του κώδικα και υποστηρικτικού υλικού του λογισμικού Noesis έως και την έκδοση 4.5 Το Noesis έχει χρησιμοποιηθεί σε πλήθος επιστημονικών εργασιών, διδακτορικών διατριβών κλπ., ενδεικτικά βλ. <http://scholar.google.gr/scholar?q=noesis+acoustic+emission>

Σχεδιασμός και ανάπτυξη λογισμικού AEWIN-Post (post-processing software): συνοδευτικό λογισμικό που διανέμεται από την Physical Acoustics Corp (USA).

Ανάπτυξη λογισμικού LPME-DAQ (Loose Parts Monitoring System): το λογισμικό LPME-DAQ στοχεύει στην παρακολούθηση (σε πραγματικό χρόνο) πυρηνικών αντιδραστήρων για την ανίχνευση πιθανών χαλαρών μελών στα κινούμενα μέρη..

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