

Curriculum vitae

Maria J. Diamantopoulou

Personal Information

First name	Maria
Surname	Diamantopoulou
Academic address	Lab. of Forest Biometrics, School of Forestry and Natural Environment, Aristotle University of Thessaloniki, Greece.
Phone number	+30 2310 998957, +30 2310992721
e-mail address	mdiamant@for.auth.gr
Place of birth	Thessaloniki, Greece

Research interests

Forest Biometry, Data analysis, Computational statistics: Focus on systematically applying statistical and/or logical techniques to describe, to examine and to evaluate each component mainly of forest data and of any kind of biological data provided. Further, application of biometry to problems with a biological component, including the problems in forestry, agricultural, environmental, and biological sciences. These include forest biometrical modeling, biometrical modelling, computational biology, applied mathematics, and statistical methods such as Exploratory data analysis, Regression Analysis, Principal Components Analysis, Cross-Validation, Multivariate Analysis, Data Mining, Artificial Neural Networks, etc.

Education

1986	High school certificate, Thessaloniki, Greece, grade: 'excellent'
1986-1991	BSc in Environmental Science, Faculty of Forestry and Natural Environment, Aristotle University of Thessaloniki, Greece. Ten semesters, grade: 7.37 out of 10.00.
1991-1996	PhD in Biometrics, Faculty of Forestry and Natural Environment, Aristotle University of Thessaloniki, Greece, grade: 'excellent'.
1991-1994	School of Mathematics, Aristotle University of Thessaloniki, Greece: During my PhD I have taken courses on: a) Probability Theory I, b) Mathematical Statistics I and c) Mathematical Statistics II a) Statistics, ECTS=7.0, examination's grade: 10 out of 10 b) Sampling, ECTS=5.0, examination's grade: 9 out of 10, and c) Applied Analysis of Regression and Variance, examination's grade: 10 out of 10.
1999	Graduate (higher education) from School of Pedagogical & Technological Education, Technical & Vocational Teacher Training Institute, Thessaloniki, Greece, grade: 8.4 out of 10.0.
2020	Certificate on: a. Python Basics (University of Michigan, USA), Grade Achieved: 100.00%. Certification link: https://coursera.org/share/c0ebdf9ebb9b998e0bd8400c3cb014ed

- b. Applied Machine Learning in Python (University of Michigan, USA),
Grade Achieved: 93.70%. Certification link:
<https://coursera.org/share/c31c05deea873528fc70ddf479da619b>

Personal Skills	
Mother tongue	Greek
Other language	English
Computer skills	Competent with: <ul style="list-style-type: none"> _ Most Statistical packages: IBM-SPSS, S-PLUS, STATISTICA, etc. _ AutoCad 2000 _ programming languages: R, Python, MATLAB and FORTRAN _ Using Computers & Managing Files (MS Windows) _ MS Word, MS Excel, MS Internet Explorer, MS Outlook Express, MS Access, MS Power Point _ Assessment Method in Application
Scholarship	
Jan 1995 – June 1996	Aristotle University of Thessaloniki, Research Committee
Member of the following Societies	
	<ul style="list-style-type: none"> ✓ Greek Society of Data Analysis ✓ Greek Statistical Institute ✓ Geotechnical Chamber of Greece ✓ Hellenic Operational Research Society ✓ Hellenic Forestry Society ✓ Society of Trainers in National Accreditation Center for Continuing Vocational Training
Positions Held – Professional Activity	
Current position	Assistant Professor, Lab. of Forest Biometrics, School of Forestry and Natural Environment, Aristotle University of Thessaloniki, Greece.
1997 - 2006	Lecturer, Aristotle University of Thessaloniki, Greece
2001-2002	Scientific collaborator, Technological Educational Institute of Kabala, Greece.
1998-2000	Trainer, State Institute of vocational training of Sindos, Greece
1997	Trainer, State Institute of vocational training of Neapoli, Greece
1996 -2001	Scientific collaborator, Technological Educational Institute of Thessaloniki, Greece.
1996 - 2000	Trainer, State Institute of vocational training of Epanomi, Greece.
Teaching responsibilities at	
School of Forestry and Natural Environment, Faculty of Agriculture, Forestry and and Natural Environment	
Undergraduate courses (today)	1. Forest Biometry I , 2. Forest Biometry II, 3. Sampling methods - Experimental design, 4. Applied Statistics, 5. Forest Biometry

(prior to 2020) 1. Forest Biometry I, 2. Forest Biometry II, 3. Sampling methods
4. Experimental design, 5. Introduction to regression analysis

**Postgraduate courses
(prior to 2020)** 1. Advances in Forest Biometry II (regression analysis)
2. Lecture in Sustainable Management of Forest and Natural
Ecosystems: Prediction, Production and Exploitation

Participation in Research Programms

Member of the scientific team of the following Research Programms

- a. code 4737/Aristotle University of Thessaloniki, Greece.
- b. code 7025/ Aristotle University of Thessaloniki, Greece.
- c. code 80869/EPEAEK II - PYTHAGORAS II (Environment)/ Aristotle University of Thessaloniki, Greece.

Participation in Conferences

In 43 Conferences including presentation of at least one paper.

Selected Publications

1. Özçelik R., M.J. Diamantopoulou, G. Trincado, 2019. *Evaluation of potential modeling approaches for Scots pine stem diameter prediction in north-eastern Turkey. Computers and Electronics in Agriculture* 162 (2019) 773–782.
2. Diamantopoulou M.J., R. Özçelik, H. Yavuz, 2018. *Tree-bark volume prediction via machine learning: A case study based on black alder's tree-bark production. Computers and Electronics in Agriculture* 151 (2018) 431–440
3. Aschonitis, V., Diamantopoulou, M., Papamichail, D., 2017. *Modeling plant density and ponding water effects on flooded rice evapotranspiration and crop coefficients: critical discussion about the concepts used in current methods. Theor Appl Climatol* (2017).
4. Özçelik R., M.J. Diamantopoulou, M. Eker, N. Gurlevik, 2017. *Artificial Neural Network Models: An Alternative Approach for Reliable Aboveground Pine Tree Biomass Prediction, Forest Science: 63(3):291–302*
5. Diamantopoulou M.J., R.Özçelik, F.Crecente-Campo, U.Eler, 2015. *Estimation of Weibull function parameters for modelling tree diameter distribution using least squares and artificial neural networks methods, Biosystems Engineering: 133, 33-45.*
6. Özçelik, R., M.J. Diamantopoulou J. Brooks, 2014. *The use of tree crown variables in over-bark diameter and volume prediction models. iForest-Biogeosciences and Forestry, Vol 7: 132-139*
7. Özçelik R., Diamantopoulou, M.J., Crecente-Campo, F., Eler U., 2013. *Estimating Crimean juniper tree height using nonlinear regression and artificial neural network models. Forest Ecology and Management, 306: 52-60.*
8. Διαμαντοπούλου, Μ.Ι. και Σταματέλλος Γ. 2013. «Εφαρμογή νευρωνικών δικτύων στην εκτίμηση του αριθμού κορμών σε δασικές εκτάσεις». 16ο Πανελλήνιο Δασολογικό Συνέδριο. Θεσσαλονίκη, Οκτώβριος 2013, 338-397.
9. Diamantopoulou M.J., 2012. *Assessing a reliable modeling approach of features of trees through neural network models for sustainable forests. Sustainable Computing: Informatics and Systems, 2(4): 190–197.*

10. *Diamantopoulou M.J. and R. Özcelik, 2012. Evaluation of different modeling approaches for total tree-height estimation in Mediterranean Region of Turkey. Forest Systems Vol: 21(3): 383-397*
11. *Diamantopoulou M.J., Milios E., 2010 Modeling total volume of dominant pine-trees in reforestations via multivariate analysis and artificial neural network models. Biosystems Engineering. Vol.105(3): 306-315.*
12. *Diamantopoulou M.J., 2010. Filling Gaps in Diameter Measurements on Standing Tree Boles in the Urban Forest of Thessaloniki, Greece. Environmental Modelling and Software. 25(12): 1857-1865.*
13. *Özcelik, R., J.R. Brooks, M.J. Diamantopoulou, and H.V. Wiant, 2010. Estimating Breast Height Diameter and Volume from Stump Diameter for Three Economically Important Species in Turkey. Scandinavian Journal of Forest Research. Vol 25: 32-45.*
14. *Διαμαντοπούλου Μ.Ι. και Μάτης Κ.Γ., 2010. Εκτίμηση όγκου φλοιού δέντρων πεύκης (Pinus brutia) με χρήση τεχνητών νευρωνικών δικτύων. Επιστημονική Επετηρίδα του Τμήματος Δασολογίας και Φυσικού Περιβάλλοντος, τόμος ΜΕ/2002/45, αρ. εργ.: 9, σελ. 11.*
15. *Özcelik, R., M.J. Diamantopoulou, H.V. Wiant, and J.R. Brooks, 2010. Estimating tree bole volume using artificial neural network models for four species in Turkey. Journal of Environmental Management. Vol. 91(3): 742-753.*
16. *Diamantopoulou M.J., Milios E., Doganos D., and Bistinas I., 2009. Artificial neural network modeling for reforestation design through the dominant trees bole-volume estimation. Natural Resource Modeling. 22(4): 511-543.*
17. *Özcelik, R., Diamantopoulou, M.J., Harry V. Wiant, and John R. Brooks, 2008. Comparative study of standard and modern methods for estimating tree bole volume of three different species in Turkey. Forest Products Journal, Vol 58(6): 73-81.*
18. *Diamantopoulou, M., Antonopoulos, V. and Papamichail D., 2007. Cascade Correlation Artificial Neural Networks for Estimating Missing Monthly Values of Water Quality Parameters in Rivers. Water Resources Management, 21: 649-662.*
19. *Diamantopoulou M.J., 2005. Artificial Neural Networks as an alternative tool in pine bark volume estimation. Computers and Electronics in Agriculture. 48: 235-244.*
20. *Diamantopoulou, M., 2005. Predicting fir trees stem diameters using Artificial Neural Network models. Southern Forests: a Journal of Forest Science, Vol. 205: 39-44.*

Books (in Greek)

1. *Matis KG, Diamantopoulou MJ., 1992. Forest-biometrical SPSS and FORTRAN programs written by the authors, for single and double entry volume-tables development: 5. (VOLUME). Laboratory of Forest Biometrics publication, Aristotle University of Thessaloniki, Greece, 48 p.*
2. *Matis KG, Diamantopoulou MJ., 1993. Forest-biometrical SPSS and FORTRAN programs written by the authors for height-diameter models development: 6. (HEIGHT). Laboratory of Forest Biometrics publication, Aristotle University of Thessaloniki, Greece, 32 p.*
3. *Matis KG, Diamantopoulou MJ., 1994. Forest-biometrical SPSS and FORTRAN programs written by the authors for form-height and form factors models development: 7. (FORMFAC & FORMHEI). Laboratory of Forest Biometrics publication, Aristotle University of Thessaloniki, Greece, 32 p.*
4. *Matis KG, Diamantopoulou MJ., 1995. Forest-biometrical SPSS and FORTRAN programs written by the authors for exploratory data analysis: 9. (EXAMINE).). Laboratory of Forest Biometrics publication, Aristotle University of Thessaloniki, Greece, 32 p.*

5. *Diamantopoulou MJ., 1997. Introduction to Biometry. Thessaloniki, 156 p. Record approval Num 11/1998.*
6. *Diamantopoulou MJ., 1999. Notes of Experimental Design Theory and practice using the SPSS statistical package. Thessaloniki, 101 p.*
7. *Diamantopoulou MJ., 2002. Notes of Forest Biometry – Dendrometry I. Theory and practice. Thessaloniki, p.. 186. Record approval Num 2002.*
8. *During my employment as Trainer at State Institute of vocational training of Sindos, Epanomi and Neapoli, Greece, I have written the following notes that have been approved by the Vocational Training Organism (OEEK):*
 - A. *Statistics, 1996, Thessaloniki, 60 p.*
 - B. *Statistics and Probability Theory I, 1996, Thessaloniki, 69 p.*
 - Γ. *Statistics and Probability Theory II, 1997, Thessaloniki, 72 p.*
 - Δ. *Statistics II, 1998, Thessaloniki, p. 70.*
 - E. *Introduction to Statistics 1999, Thessaloniki, 82 p.*

Reviewer at the following journals

1. Ecological Modelling
2. Ecological Engineering
3. Computers and Electronics in Agriculture
4. Biosystems Engineering
5. Journal of Environmental Management
6. Journal of Ecology and Natural Environment
7. African Journal of Agricultural Research
8. Industrial Crops and Products
9. Forests
10. Journal of Applied Remote Sensing
11. Canadian Journal of Forest research

Number of citations and h-indexes (till 10/01/2021)

Source	number
Scopus h-index	13
Scholar Google h-index	17
Scholar Google h10-index	20
ResearchGate score	21.15
Scopus	507
Scholar Google	935
ResearchGate	704
From researchers and scientists in greek	About 115

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Maria Diamantopoulou