Philippe du Jardin, PhD-HDR

Professor – Speciality: Computer Science
Phone : +33 (0)4.93.18.99.66
E-mail : philippe.dujardin@edhec.edu

Philippe du Jardin is currently professor at Edhec business school, in charge of the computer science department, and conducts his research works within the Edhec Value Creation Research Centre. He holds three Master degrees (Master in Management and Master in Information Technology from Skema business school and Master of Research from IAE Aix-en-Provence), as well as a Ph.D. in business administration from Nice Sophia-Antipolis University and a post-doctoral degree (HdR) from Lille 1 University. Prior to coming to Edhec, he has held academic appointments at Ceram business school (Skema), Aix-Marseille University and Nice University and has served as a consultant for various companies for questions related to IT and data-mining issues. His research interests focus on credit risk and company financial failure and he is interested in neural networks and nonlinear models. He has published his works in leading international journals.

EDUCATION

2015	HDR (Habilitation à Diriger les Recherches) – Post-doctoral degree – Lille 1 University – Topic: business failure prediction and modeling issues.
2007	Ph.D. – Nice Sophia-Antipolis University – Topic: business failure prediction and neural networks: the contribution of variable selection methods.
1996	Master of research (DEA) – IAE Aix-en-Provence – France.
1986	Master in information technology – Ceram ESC – France.
1985	Master in management – Ceram ESC – France.

TEACHING EXPERIENCE

2002 to present	Full-time Professor of Information Technology, Department of Information Technology, EDHEC, Nice.

2001 to 2003	Part-time Professor, IAE, Nice.
1997 to 1998	Part-time Professor, Aix-Marseille University.
1986 to 1997	Full-time Professor of Information Technology, Ceram Business School, Sophia-Antipolis.

PROFESSIONAL NON-TEACHING EXPERIENCE

1999 to 2002	Training and Program Director, IFP, Marseille.

CONSULTING ASSIGNMENTS

2000 to 2002	Consultancy for Intuit Service Europe, a software company which builds and provides financial softwares.
1993 to 1998	Consultancy for Sip SA, a software company which builds and provides portfolio management systems for banks, insurance companies and mutual funds.
1988 to 1993	Consultancy for a communication company, Crisis, carrying out surveys and setting up marketing strategies related to industrial risks.

PUBLICATIONS

Research Papers

1 – J. Wang, L. Liao, K. Zhong, M. Deveci, P. du Jardin, J. Tan, S. Kadry, 2025, MRRFGNN: Multi-relation reconstruction and fusion graph neural network for stock crash prediction, Information Sciences, vol. 689, pp. 121507.

2 – P. du Jardin, 2024, A quantification approach of changes in firms' financial situation using neural networks for predicting bankruptcy, Journal of Forecasting, https://doi.org/10.1002/for.3227.

3 – P. du Jardin, 2024, Designing ensemble-based models using neural networks and temporal financial profiles to forecast firms' financial failure, Computational Economics, https://doi.org/10.1007/s10614-024-10579-4.

4 – P. du Jardin, 2023, Designing topological data to forecast bankruptcy using convolutional neural networks, Annals of Operations Research, vol. 325, pp. 1291-1332.

5 – P. du Jardin, 2021, Dynamic self-organizing feature map-based models applied to bankruptcy prediction, Decision Support Systems, vol. 147, pp. 113576.

6 – P. du Jardin, 2021, Forecasting bankruptcy using biclustering and neural network-based ensembles, Annals of Operations Research, vol. 299, pp. 531–566.

7 – P. du Jardin, 2021, Forecasting corporate failure using ensemble of self-organizing neural networks, European Journal of Operational Research, vol. 288, pp. 869–885.

8 – P. du Jardin, D. Veganzones, E. Séverin, 2019, Forecasting corporate bankruptcy using accrual-based models, Computational Economics, vol. 54, pp. 7–43.

9 – P. du Jardin, 2018, Failure pattern-based ensembles applied to bankruptcy forecasting, Decision Support Systems, vol. 107, pp. 64–77.

10 – P. du Jardin, 2017, Dynamics of firm financial evolution and bankruptcy prediction, Expert Systems with Applications, vol. 75, pp. 25–43.

11 – L. Nogueira, G. Quatrehomme, M. F. Bertrand, C. Rallon, R. Ceinos, P. du Jardin, P. Adalian, V. Alunni, 2017, Comparison of macroscopic and microscopic (stereomicroscopy and scanning electron microscopy) features of bone lesions due to hatchet hacking trauma, International Journal of Legal Medicine, vol. 131, issue 2, pp. 465–472.

12 – G. Quatrehomme, I. Radoman, L. Nogueira, P. du Jardin, V. Alunni, 2017, Sex determination using the DSP method on the coxal bone: Efficiency of method according to number of available variables, Forensic Science International, vol. 272, pp. 190–193.

13 – P. du Jardin, 2016, A two-stage classification technique for bankruptcy prediction, European Journal of Operational Research, vol. 254, issue 1, pp. 236–252.

14 – P. du Jardin, E. Séverin, P. Luu, 2015, Gestion du crédit client des sociétés en difficulté financière et coûts indirects de faillite : le cas des TPE françaises, La Revue des Sciences de Gestion, issue 273–274, pp. 83–93.

15 – P. du Jardin, E. Séverin, 2015, BFR et difficulté financière dans les TPE françaises : Etude exploratoire des trajectoires de faillite, La Revue des Sciences de Gestion, issue 271, pp. 69–88.

16 – V. Alunni, P. du Jardin, L. Nogueira, L. Buchet, G. Quatrehomme, 2015, Comparing discriminant analysis and neural network for the determination of sex using femur head measurements, Forensic Science International, vol. 253, pp. 81–87.

17 – Y. Miche, A. Akusok, D. Veganzones, K.-M. Björk, E. Séverin, P. du Jardin, M. Termenong, A. Lendasse, 2015, SOM-ELM: Self-organized clustering using ELM, Neurocomputing, vol. 165, pp. 238254.

18 – A. Akusok, D. Veganzones, Y. Miche, K.-M. Björk, P. du Jardin, E. Séverin, A. Lendasse, 2015, MD-ELM: Originally mislabeled samples detection using OP-ELM model, Neurocomputing, vol. 159, pp. 242–250.

19 – P. du Jardin, 2015, Bankruptcy prediction using terminal failure processes, European Journal of Operational Research, vol. 242, issue 1, pp. 286–303.

20 – G. Quatrehomme, E. Biglia, B. Padovani, P. du Jardin, V. Alunni, 2014, Positive identification by X-rays bone trabeculae comparison, Forensic Science International, vol. 225, pp. e11–e14.

21 – P. du Jardin, J. Regner, E. Séverin, 2013, Prepacks, Bankers, Markets & Investors, issue 125, pp. 54–66.

22 – P. du Jardin, E. Séverin, 2012, Forecasting financial failure using a Kohonen map: A comparative study to improve model stability over time, with E. Séverin, European Journal of Operational Research, vol. 221, issue 2, pp. 378–396.

23 – P. du Jardin, 2012, The influence of variable selection methods on the accuracy of bankruptcy prediction models, Bankers, Markets & Investors, issue 116, pp. 20–39.

24 – P. du Jardin, E. Séverin, 2011, Dividend policy, Bankers, Markets & Investors, issue 115, pp. 37–54.

25 – P. du Jardin, E. Séverin, 2011, Predicting corporate bankruptcy using a self-organizing map: An empirical study to improve the forecasting horizon of a financial failure model, Decision Support Systems, vol. 51, issue 3, pp. 701–711.

26 – G. Quatrehomme, J. Ponsaillé, P. du Jardin, C. Leccia, V. Alunni-Perret, 2011, Methodology for estimating endocranial capacity in a modern European population, Forensic Science International, vol. 206, issue 1, pp. 213.e1–213.e6.

28 – P. du Jardin, 2010, Predicting bankruptcy using neural networks and other classification methods: The influence of variable selection techniques on model accuracy, Neurocomputing, vol. 73, issue 10-12, pp. 2047–2060.

29 – P. du Jardin, 2009, Bankruptcy prediction models: How to choose the most relevant variables? Bankers, Markets & Investors, issue 98, January-February, pp. 39–46.

30 – P. du Jardin, J. Ponsaillé, V. Alunni-Perret, G. Quatrehomme, 2009, A comparison between neural network and other metric methods to determine sex from the upper femur in a modern French population, Forensic Science International, vol. 192, issue 1–3, pp. 127.e1–127.e6.

Conference Presentations

1 – D. Veganzones, E. Séverin, P. du Jardin, 2016, Forecasting financial failure using accruals and financial ratios, 33rd International Conference of the French Finance Association, HEC Management School, Liège University, Liège, Belgium, May 23–25.

2 – D. Veganzones, E. Séverin, P. du Jardin, 2016, Bankruptcy prediction: An investigation of earnings management to improve the accuracy of bankruptcy prediction models, 4th International Symposium in Computational Economics and Finance, Society for Computational Economics, Paris, April 14–16.

3 – A. Akusok, D. Veganzones, Y. Miche, P. du Jardin, E. Séverin, A. Lendasse, 2014, SOM-ELM: Self-Organized Clustering Using Extreme Learning Machine, 5th International Conference on Extreme Learning Machines, Singapore, December 8–10.

4 – Y. Miche, A. Akusok, D. Veganzones, K.-M. Björk, E. Séverin, P. du Jardin, A. Lendasse, 2014, MD-ELM: Originally Mislabeled Samples Detection using OP-ELM Model, 5th International Conference on Extreme Learning Machines, Singapore, December 8–10.

5 – A. Akusok, D. Veganzones, K.-M. Björk, E. Séverin, P. du Jardin, A. Lendasse, Y. Miche, 2014, Extreme Learning Machine Clustering: Application to Bankruptcy Prediction, International Work-Conference on Time Series Analysis, Granada, Spain, June 25–27.

6 – P. du Jardin, E. Séverin, 2010, Dynamic analysis of the business failure process: A study of bankruptcy trajectories, 6th Portuguese Finance Network Conference, Ponta Delgada, Azores, July 1–3.

7 – P. du Jardin, 2008, Bankruptcy prediction and neural networks: The contribution of variable selection methods, Second European Symposium on Time Series Prediction (Estsp 2008), Helsinki University of Technology, 17-19 September, Porvoo, Finland.

8 – P. du Jardin, 2008, L'influence des méthodes de sélection de variables sur la structure et la performance des modèles de prévision de la défaillance d'entreprise, Modèles et Apprentissages en Sciences Humaines et Sociales, Laboratoire Erudite - Paris 12 et Laboratoire Samos-Matisse-CES - Paris 1, 5-6 juin, Créteil, France.

9 – P. du Jardin, 1990, L'informatique : Une arme concurrentielle, Towards a European School of Strategic Management Workshop, Afcet–Afplane, 31 January – 2 February, Paris.

10 – P. du Jardin, 1990, Technologies de l'information et organisation : Pour une approche stratégique, proceedings of the Burotica 90 Conference, 9–12 October, Paris.

11 – P. du Jardin, 1989, L'informatique stratégique ou l'informatique revisitée par l'analyse concurrentielle : limites et faiblesses, proceedings of the Burotica 89 Conference, 10–13 October, Paris.

12 – P. du Jardin, 1989, De l'utilisation stratégique des technologies de l'information, proceedings of the Second Workshop on Information Systems, Société française de bibliométrie appliquée – CNRS, 31 may – 2 June, Ile Rousse.

FEATURED IN THE PRESS

1 – P. du Jardin, 2018, Modèles de scoring bancaire : une façon peu précise d'estimer un risque de défaut, Revue Française de Comptabilité, issue 519, April, pp. 18–19.

2 – P. du Jardin, 2017, Les modèles de scoring bancaires doivent se moderniser pour être plus pertinents, L'Agefi Hebdo, issue 583, October, p. 29.

3 – P. du Jardin, Eric Séverin, 2015, Les fonctions scores sont-elles encore efficaces ? Revue Banque, issue 783, March, pp. 53–55.

4 – P. du Jardin, Eric Séverin, 2014, Facteurs de succès et devenir des entreprises après les procédures collectives : le chapitre 11 est-il un modèle à suivre ? Revue Banque, issue 776, October, pp. 58–60.

5 – P. du Jardin, J. Regner, Eric Séverin, 2013, La procédure de sauvegarde et de sauvegarde financière accélérée, with and Eric Séverin, Banque et Droit, Hors-série, September, pp. 10–18.

6 – P. du Jardin, Eric Séverin, 2013, Procédures collectives européennes et américaines : quels objectifs pour quelle efficacité ? Revue Banque, issue 757, February, pp. 57–60.

7 – P. du Jardin, 2012, Trajectoires de défaillance : une autre façon d'appréhender le risque de défaut, Revue Banque, issue 747, April, pp. 24–27.

8 – P. du Jardin, Eric Séverin, 2011, Les déterminants de la trésorerie des entreprises, with Eric Séverin, Revue Banque, issue 735, April, pp. 64–67.

9 – P. du Jardin, Eric Séverin, J. Regner, 2011, Les procédures de sauvegarde et de sauvegarde accélérée : pour une gestion proactive des difficultés financières des entreprises, Banque et Stratégie, issue 290, March, pp. 38–41.

10 – P. du Jardin, Eric Séverin, J. Regner, 2011, La mise en œuvre de la procédure de sauvegarde accélérée, Revue Banque, issue 734, March, pp. 51–52.

11 – P. du Jardin, 2010, Les défaillances des modèles de défaillance, Revue Banque, issue 720, January pp. 39–41.

12 – P. du Jardin, 1994, Système d'information orienté client : les conséquences technologiques, Informatique Bancaire, issue 6, June, pp. 51–52.

13 – P. du Jardin, 1994, Système d'information orienté client : les fondamentaux technologiques, iX Magazine, issue 74, June, pp. 27–35.

14 – P. du Jardin, 1994, Middleware : l'instrument du dialogue dans les systèmes informatiques, Marchés et Techniques Financières, issue 58, March, pp. 34–36.

15 – P. du Jardin, 1993, Back-office : pour une polémique de l'industrialisation, Marchés et Techniques Financières, issue 48, March, pp. 40–44.

16 – P. du Jardin, 1991, Étude de satisfaction des utilisateurs de logiciels back-office, Finance et Informatique, issue 10, September–October, pp. 35–40.

CHAPTERS IN BOOKS

Contrôle de gestion, P. Boisselier, L. Chalençon, D. Doriol, P. du Jardin, Y. Mard, U. Mayrhofer, Vuibert, Collection Gestion, Paris, 2013, 672 p.

HONORS/AWARDS

World's Top 2% Scientists: 2024.
World's Top 2% Scientists: 2023.
World's Top 2% Scientists: 2022.

SOFTWARE DEVELOPMENT

Design and development of a classification tool (Neural Tank 1.0) based on Kohonen maps (http://phil.dujardin.online.fr/down_zone/neurones_pages/neurones_frame.htm).

REFEREE ACTIVITY

Ad-hoc referee for:

- European Journal of Operational Research.
- Decision Support Systems.
- Journal of Business Venturing.
- Management Science.
- Neurocomputing.
- Expert Systems with Applications.
- Journal of the Operational Research Society.
- Journal of Business Research.
- Applied Soft Computing.
- Computational Economics.
- Journal of Computational and Applied Mathematics.
- European Accounting Review.
- Engineering Applications of Artificial Intelligence.
- International Review of Financial Analysis.
- Soft Computing.
- AI Communications: The European Journal on Artificial Intelligence.
- International Review of Economics and Finance.
- Intelligent Systems in Accounting, Finance and Management.
- Journal of International Financial Management and Accounting.
- International Journal of Banking, Accounting and Finance.
- International Journal of Managerial Finance.

PH.D. COMMITTEE

B. Gajic-Pesalj, L'impact du système de mesure et de contrôle de la performance et du caractère multinational de la firme sur les performances des entreprises, Nice University, December 2010.

RESEARCH INTERESTS

- Artificial neural networks.
- Data-mining.
- Machine learning.
- Clustering.

TEACHING SPECIALITIES

- Machine learning.

- Data-mining.
- Database management systems.
- Programming.