

CURRICULUM VITAE OF PROF. GIOVANNI CELANO

Personal Details:

FULL NAME AND TITLE: Giovanni Celano, PhD
DATE OF BIRTH: October 7th, 1973
BORN IN: Catania (Italy)
STATUS: Married, 3 children.
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Higher Education:

2003 PhD degree in Manufacturing Engineering – University of Palermo (Italy)

1998 M.S. degree in Mechanical Engineering – University of Catania (Italy), graduation with final vote 110/110 “cum laude”.

Appointment:

01/2002 – 09/2014. University of Catania (Italy), Department of Industrial Engineering: Assistant Professor in Technology and Manufacturing Systems (Code 09/B1 – ING-IND/16).

10/2014 – present. University of Catania (Italy), Department of Industrial Engineering: Associate Professor in Technology and Manufacturing Systems (Code 09/B1 – ING-IND/16).

Other Titles:

Awarding the national scientific qualification (“abilitazione scientifica nazionale”) as associate professor in the Sector 09/B1 “Tecnologie e Sistemi di Lavorazione” (Manufacturing Systems and Technologies) up to 18 December 2017

Awarding the national scientific qualification (“abilitazione scientifica nazionale”) as associate professor in the Sector 13/D1 “Statistica” (Statistics) up to 10 February 2018

Teaching:

Undergraduate level:

2013-2014

Introduction to Design of Experiments for Engineers (30 hrs – Course for students of Mediterranean University Center)

2003 -2011: Fundamentals of Machining Operations (90 hrs – B.S. programme in Mechanical Engineering, University of Catania, Italy)

Academic Year 2004 - 05: Management of Quality (60 hrs – B.S. programme in Management Engineering, University of Catania, Italy)

Postgraduate level:

2011 - present: Management of Quality (90 hrs – M.S. programme in Management Engineering, University of Catania, Italy)

2011-13: Fundamentals of Modern Manufacturing (90 hrs – M.S. programme in Management Engineering, University of Catania, Italy)

2005 - 2011: Management of Quality (60 hrs – M.S. programme in Management Engineering, University of Catania, Italy)

Other Academic Activities:

Contact Professor of Erasmus Agreements:

Academic Year 2012 - present: Bilateral Agreement with University of Nantes (FNantes01)

Membership to PhD Committees:

2007-2011: Member of the Teaching Body of the PhD School of “Manufacturing Engineering”, University of Palermo (Italy)

2012 - present: Member of the Teaching Body of the PhD School of “Systems Engineering”, University of Catania (Italy)

March 2013: Member of the Evaluation Committee for the final exam of PhD Course in Statistics, University of Padua (Italy)

2013 – present: Member of the PhD committee evaluating the research activities of PhD student A. Amdouni, working on “Statistical Process Control monitoring the coefficient of variation in a short production run”, LUNAM Université, Université de Nantes & IRCCyN UMR CNRS 6597

Advisorship of students:

PostDoc positions Advisor:

Enrico Trovato, research topic “Control charts for monitoring short production runs” in collaboration with Prof. Philippe Castagliola, LUNAM Université, Université de Nantes & IRCCyN UMR CNRS 6597, funded by Ecole de Mines de Nantes (France) Nantes, France, 04/2009 – 04/2010

Bachelor and Master Degree students advisor:

Advisor of several Bachelor and Master Degree theses in the fields of Quality Management and Product / Service Management.

Research interests:

The main research interests are focused on:

- Statistical Process Control. Statistical and economic design of control charts<
- A multidisciplinary approach to the economic design of quality control procedures to bridge the gap between the statistical and the operations management perspective in carrying out research in this field;
- Re-thinking to the Six Sigma quality management approach as a problem solving toolbox to be implemented in the re-engineering of manufacturing

processes and services under a Lean perspective, with a special attention to the service organizations

Author/co-author of about 110 papers in top quality international journals and in proceedings of national and international conferences.

International Collaborations in Research:

- Prof. P. Castagliola, Institute Universitaire de Technologie de Nantes & IRCCyN, France;
- Prof. A.F.B. Costa, Department of Production, FEG-UNESP, Guaratingueta , Brazil;
- Prof. M.S. De Magalhães, Instituto Politecnico (IPRJ), Universidade do Estado do Rio de Janeiro, Brazil;
- Prof. S. Psarakis, Department of Statistics, Athens University of Economics, Greece;
- Dr George Nenes, Department of Mechanical Engineering, University of Western Macedonia, Greece;
- Dr. S. Panagiotidou, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece;
- Prof. A. Faraz, Centre for Quantitative Methods and Operations Management, HEC Management School, University of Liège, Liège, Belgium;
- Prof. H. Taleb, Higher Institute of Business Administration of Gafsa, University of Gafsa, Gafsa, Tunisia;
- Prof. E. Saniga, Department of Business Administration, University of Delaware, Newark, USA.

Visiting professor at :

- Institut Universitaire de Technologie de Nantes, France, 2006-present.
- Aristotle University of Thessaloniki, Greece, September 2011.
- Universidade Estadual Paulista, Faculdade de Engenharia, Campus de Guaratinguetá, Brazil., Brazil, November 2012, Invited Seminar (15 hours) on “Computation of the statistical properties of advanced control charts with Markov Chain models”.

Membership to Research Societies:

European Network of Business and Industry Statistics (ENBIS)

Associazione Italiana di Tecnologia Meccanica (AITeM)

Collaboration with International Journals

2010 – present: Associate Editor of the Quality Technology and Quantitative Management Journal, NCTU Publication Press and FCU Press, ISSN: 1684-3703.

2012 - present: Member of the Editorial Board of Journal of Industrial Engineering, Hindawi Publishing Company, ISSN: 2314-4890

Reviewing activity for:

Communications in Statistics – Theory and Methods, Computers & Industrial Engineering, European Journal of Operational Research, International Journal of Advanced Manufacturing Technology, International Journal of Healthcare Quality Assurance, International Journal of Logistics, International Journal of Production

Economics, International Journal of Production Research, International Journal of Quality and Reliability Management, Journal of Applied Statistics, Mathematical and Computer Modelling, Pakistan Journal of Statistics, Quality Technology and Quantitative Management, Scientia Iranica

Funded Research Grants:

Participation to research groups in local research projects:

PRA 2008: “Il miglioramento della qualità dei processi mediante l’implementazione di tecniche di operations management”, funded by the University of Catania

PRA 2007: “Il miglioramento della qualità dei processi mediante l’implementazione di tecniche di operations management”, funded by the University of Catania

MURST EX 60% 2000-2002: Title: “Modelli integrati per la simulazione e l’ottimizzazione di linee di assemblaggio”, funded by the University of Catania

MURST EX 60% 1998-2000: Title: “Verifica virtuale di part program per torni CNC”, funded by the University of Catania

Participation to research groups in national research projects:

PRIN 2005: Title: “Metodologie e strumenti per la configurazione di sistemi produttivi a flessibilità focalizzata”, funded by the MIUR

PRIN 2001: Title: “Pianificazione distribuita del processo e della produzione in ambiente manifatturiero”, funded by the MIUR

Participation to research groups in international research projects:

PICS project, 2006-2008, title: “Methodes Statistiques Adaptatives Pour La Surveillance Della Variabilite’ De Procedes”, funded by the French CNRS.

Coordinator of projects:

Mobility for Graduated Students, 2008, Title: “Un approccio metaeuristico per la risoluzione del problema del trasporto di persone disabili”, (“A meta-heuristic approach for solving the vehicle routing problem of disable people”) in collaboration with Prof. O. Peton (Ecole Des Mines de Nantes, France). Funded by University of Catania and developed at the Ecole Des Mines de Nantes, France.

Mobility for Graduated Students, 2008, Title: “Carte di controllo per il monitoraggio della variabilità di un processo produttivo mediante la distribuzione di Johnson”, (“Johnson distribution transformed control charts monitoring process dispersion”) in collaboration with Prof. P. Castagliola (Institute Universitaire de Technologie de Nantes & IRCCyN, France). Funded by University of Catania and developed at the Institute Universitaire de Technologie de Nantes, France.

PRA 2006, Title: “Progettazione di sistemi di carte di controllo adattative in processi aventi capacità limitata di risorsa umana”, (“Design of systems of control charts in processes with limited human resource”), funded by the University of Catania

PRA 2004-2005, Title: “Carte di controllo avanzate per il monitoraggio della variabilità di processo”, (Advanced control charts monitoring process dispersion”), funded by the University of Catania

PRA 2002-2003, Title: "Sviluppo di strumenti adattativi per il controllo statistico di processo", ("Development of Adaptive Statistical Process Control tools") , funded by the University of Catania

International Activities and Conference Participation:

Conference co-organizer: member of the International Symposium on Statistical Process Control organizing committee, Nantes (France), July 16-17, 2009.

Invited speaker at ISBIS (International Symposium on Business and Industrial Statistics) Prague (Czech Republic), July 1-4, 2008.

Speaker presenting research papers at several Conferences:

Recent (2011-present) publications on international journals

- [1] G. Celano, A. Costa, S. Fichera, 2011 "Optimization of multi-pass turning economies through a hybrid particle swarm optimization technique", International Journal of Advanced Manufacturing Technology, 53(5-8), pp. 421-433, Springer, ISSN: 0268-3768.
- [2] P. Castagliola, G. Celano., A. Costa, S. Fichera, 2011, "Constrained economic design of one-sided logarithmic transformed S control charts for random process shifts", International Journal of Quality and Reliability Management, 28(3), pp. 298-316, Emerald, ISSN: 0265-671X
- [3] P. Castagliola, G. Celano, S. Fichera, E. Trovato, 2011, "Shewhart and EWMA t control charts for short production runs", Quality and Reliability Engineering International, 27(3), pp. 313-326, DOI: 10.1002/qre.1121, Wiley, ISSN: 0748-8017.
- [4] G. Celano, 2011, "On the constrained economic design of control charts: a literature review", Produção, invited paper, 21(2), pp. 223-234, Brazilian Association of Production Engineering (ABEPRO), ISSN: 0103-6513
- [5] G. Celano, A.F.B. Costa, M.S. De Magalhaes, S. Fichera, 2011, "A stochastic shift model for economically designed charts constrained by the process stage configuration", International Journal of Production Economics, 132(2), pp. 315-325, Elsevier, ISSN: 0925-5273.
- [6] P. Castagliola, G. Celano, S. Psarakis, 2011, "Monitoring the coefficient of variation using EWMA charts", Journal of Quality Technology, 43(3), pp. 249-265, American Society for Quality, ISSN: 0022-4065
- [7] P. Castagliola, G. Celano., A. Costa, S. Fichera, 2011, "On the design of Shewhart control charts monitoring dispersion in processes with random shifts", in press, Journal of Operations and Logistics, 4(3), pp.39-55, ISSN: 2031-9746
- [8] G. Celano, P. Castagliola, S. Fichera, E. Trovato, 2012, "The economic performance of the Shewhart t chart", Quality and Reliability Engineering International, 28(2), pp. 159-180, Wiley, ISSN: 0748-8017.

- [9] G. Celano, A. Costa, S. Fichera, G. Tringali, 2012, "Linking Six Sigma to simulation: a new roadmap to improve the quality of patient care", *International Journal of Health Care Quality Assurance*, 25(4), pp. 254-273, Emerald, ISSN: 0952-6862
- [10] G. Celano, P. Castagliola, E. Trovato, 2012, "The economic performance of a CUSUM t chart for monitoring short production runs", *Quality Technology and Quantitative Management*, 9(4), pp. 329-354, ISSN: 1684-3703.
- [11] P. Castagliola, G. Celano, S. Fichera, 2013, "Comparison of the Xbar chart and the t chart when the parameters are estimated", 10(1), pp. 1-16, *Quality Technology and Quantitative Management*, ISSN: 1684-3703.
- [12] P. Castagliola, A. Achouri, H. Taleb, G. Celano, S. Psarakis 2013, "Monitoring the coefficient of variation using control charts with run rules", 10(1), pp. 75-94, *Quality Technology and Quantitative Management*, ISSN: 1684-3703.
- [13] G. Celano, P. Castagliola, S. Fichera, G. Nenes, 2013, "Performance of t control charts in short runs with unknown shift sizes", *Computers and Industrial Engineering*, Elsevier, 64(1), pp. 56-68, ISSN: 0360-8352.
- [14] P. Castagliola, G. Celano, S. Fichera, G. Nenes, 2013, "The variable sample size t control chart for monitoring short production runs", *International Journal of Advanced Manufacturing Technology*, 66(9-12), pp. 1353-1366, Springer, ISSN: 0268-3768.
- [15] P. Castagliola, A. Achouri, H. Taleb, G. Celano, S. Psarakis 2013, "Monitoring the coefficient of variation using a variable sampling interval control chart", *Quality and Reliability Engineering International*, 29, pp. 1135-1149, DOI: 10.1002/qre.1465, Wiley, ISSN: 0748-8017.
- [16] A. Faraz, G. Celano, E. Saniga, C. Heuchenne, S. Fichera, 2013, "The variable parameters T^2 control chart with run rules", *Statistical Papers*, in press, DOI: 10.1007/s00362-013-0537-7, Springer, ISSN: 0932-5026
- [17] G. Celano, P. Castagliola, A. Faraz, S. Fichera, 2013, "Statistical performance of a control chart for individual observations monitoring the ratio of two normal variables", *Quality and Reliability Engineering International*, in press, Wiley, ISSN: 0748-8017.
- [18] G. Celano, A. Faraz, E. Saniga, 2013, "Control Charts monitoring product's loss to society", *Quality and Reliability Engineering International*, in press, Wiley, ISSN: 0748-8017.
- [19] G. Nenes, P. Castagliola, G. Celano, S. Panagiotidou, 2013, "The Variable Sampling Interval control chart for short production runs", *IIE Transactions*, in press, Taylor and Francis, ISSN: 0740-817X
- [20] A. Amdouni, P. Castagliola, H. Taleb, G. Celano, 2014, "One-Sided Shewhart-Type Charts for Monitoring the Coefficient of Variation in Short Production

Runs”, *Quality Technology and Quantitative Management*, in press, ISSN: 1684-3703

- [21] B.C. Franco, G. Celano, P. Castagliola, A.F.B. Costa, 2014, “Economic Design of Shewhart control charts for monitoring autocorrelated data with skip sampling strategies”, *International Journal of Production Economics*, 151, pp. 121-130, Elsevier, ISSN: 0925-5273.
- [22] B.C. Franco, G. Celano, P. Castagliola, A.F.B. Costa, 2014, “A new sampling strategy to reduce the effect of autocorrelation on a control chart”, *Journal of Applied Statistics*, 41(7), pp. 1408-1421, Taylor and Francis, ISSN: 0266-4763.
- [23] G. Celano, P. Castagliola, 2014, “Design of a Phase II control chart for monitoring the ratio of two normal variables”, *Quality and Reliability Engineering International*, in press, Wiley, ISSN: 0748-8017.
- [24] G. Nenes, K. Tasiias, G. Celano, 2014, “A general model for the economic-statistical design of adaptive control charts for processes subject to multiple assignable causes”, *International Journal of Production Research*, in press, Taylor and Francis, ISSN: 0020-7543.