CURRICULUM VITAE OF PROF. GIOVANNI CELANO Updated to January 2020

Personal Details:

FULL NAME AND TITLE: Giovanni Celano, PhD DATE OF BIRTH: October 7th,1973 BORN IN: Catania (Italy)

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Languages:

Italian, English (fluent), French (basic).

Higher Education:

2003 PhD degree in Manufacturing Engineering – University of Palermo (Italy) PhD Thesis Title "Mathematical models for the sequencing of mixed model assembly lines"

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

Appointment:

04/2016 – present. University of Catania (Italy), Department of Civil Engineering and Architecture (following the Department of Industrial Engineering closure): Associate Professor in Technology and Manufacturing Systems (Sector code 09/B1 – ING-IND/16).

10/2014 – 03/2016. University of Catania (Italy), Department of Industrial Engineering: Associate Professor in Technology and Manufacturing Systems (Sector code 09/B1 – ING-IND/16).

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

Current scientific qualification:

Awarding the Italian national scientific qualification ("abilitazione scientifica nazionale") as **full professor** in the Sector 09/B1 "Tecnologie e sistemi di lavorazione" (Technology and Manufacturing Systems) up to 20 July 2026

Previously awarding the national scientific qualification ("abilitazione scientifica nazionale") as **associate professor** in the Sector 09/B1 "Tecnologie e sistemi di lavorazione" (Technology and Manufacturing Systems) and in the Sector 13/D1 "Statistica" (Statistics) up to 10 February 2023

Teaching:

Undergraduate level (Bachelor's degree):

2003 -2011 (8 Academic Years):

Tecnologia Meccanica, (Fundamentals of Machining Operations), 90 hrs, – B.S. programme in Mechanical Engineering, Faculty of Engineering - University of Catania, Italy.

Academic Year 2004 - 05:

Gestione della Qualità, (Management of Quality), 60 hrs, – B.S. programme in Management Engineering, Faculty of Engineering - University of Catania, Italy.

Postgraduate level (Master's Degree):

2017 – present (3 Academic Years):

Quality Engineering, 90 hrs, – M.S. programme in Management Engineering, University of Catania, Italy. Course taught in English language.

2011 – 2016 (5 Academic Years):

Gestione della Qualità, (Management of Quality,) 90 hrs, – M.S. programme in Management Engineering, Faculty of Engineering - University of Catania, Italy.

2011-13 (2 Academic Years):

Tecnologia Meccanica, (Fundamentals of Manufacturing Technologies), 90 hrs, – M.S. programme in Management Engineering, Faculty of Engineering - University of Catania, Italy.

2005 – 2011 (6 Academic Years):

Gestione della Qualità, (Management of Quality), 60 hrs, – M.S. programme in Management Engineering, Faculty of Engineering - University of Catania, Italy.

Courses at Scuola Superiore di Catania:

Academic Year 2013-2014:

Progettazione ed analisi degli esperimenti in ambito ingengeristico (Design and Analysis of Experiments for Engineers), 30 hrs.

Academic Year 2019-2020:

Progettazione degli Esperimenti per il Miglioramento della Qualità in Ambito Produttivo (Design of Experiments (DoE) for Quality Improvement in Manufacturing), 35 hrs.

Teaching evaluations:

Results about the evaluations of the course "Quality Engineering", Master Degree in Management Engineering (LM31 Ingegneria Gestionale), can be found at the following links:

https://www.unict.it/it/didattica/valutazione-didattica-opinione-studenti

http://www.dicar.unict.it/it/azioni-di-monitoraggio-e-di-miglioramento-della-qualit%C3%A0-della-didattica

Evaluations have always been higher than the average level of the degree course.

Other Academic Activities:

Advisorship of students:

Academic Year 2018 - 2019.

Tutorship and assistance to one student attending the School of Excellence of the University of Catania.

Academic Year 2017 – 2018.

Tutorship and assistance to three students attending the School of Excellence of the University of Catania.

Academic Years 2013 – 2017 (4 Academic Years):

Tutorship and assistance to three students attending the School of Excellence of the University of Catania.

Academic Years 2011 - 12:

Tutorship and assistance to two students attending the School of Excellence of the University of Catania.

Tutorship and assistance to newly applicant students at the B.S. programme in Mechanical Engineering (40 hrs, coordination of a group of 30 people)

Tutorship and assistance to students at the second year of the B.S. programme in Mechanical Engineering (20 hrs, coordination of a group of 30 people)

Academic Year 2010 – 13, (2 Academic Years):

Tutorship and assistance to newly applicant students at the B.S. programme in Mechanical Engineering (60 hrs, coordination of a group of 30 people)

Bachelor and Master Degree students advisor:

I have advised about 110 Bachelor and Master Degree theses in the fields of Quality Management and Product / Service Management.

PhD students co-advisor:

Enrico Trovato, thesis title "Il controllo statistico di un processo produttivo: progettazione economica di carte adattative bayesiane" (Performing SPC in a manufacturing process: economic design of Bayesian control charts) supervised by Prof. S.Fichera and defended in 07/2008 at the PhD School of Automatic and Electronic Engineering, University of Catania (Italy).

PostDoc positions co-advisor:

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

Departmental Coordinator of Erasmus Agreements:

2012 - 2021: Bilateral Agreement with University of Nantes (FNantes01)

Academic Year 2013 - 14: Bilateral Agreement with University of Liege (BLiege01)

Academic Year 2012 - 13: Bilateral Agreement with University of Liege (BLiege01)

Membership to Committees:

2012-present: Member of the Teaching Body of the PhD School of "Systems, Energy, Information and Telecommunications Engineering", University of Catania (Italy)

2012: Member of the Teaching Body of the PhD School of "Systems Engineering", University of Catania (Italy)

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

2003 – present: Member of the Teaching Body of the Master Degree Programme in Management Engineering.

2012 –2013 Member of the Teaching Body of the Master Degree Programme in Mechanical Engineering

2003 –2011 Member of the Teaching Body of the Bachelor Degree Programme in Mechanical Engineering

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

2013 – 2016: 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 Universitè, Universitè de Nantes & IRCCyN UMR CNRS 6597

2013 – 2016: Member of the PhD committee evaluating the research activities of PhD student D. Rahali, working on "Monitoring of time between events and amplitudes", LUNAM Universitè, Universitè de Nantes & IRCCyN UMR CNRS 6597

Staff Activities:

2013 - 2016

Member of the Scientific Committee of the Computer Lab serving the Departments of Engineering.

Consultancy for companies:

Collaborations with the following companies producing goods / delivering services on projects aimed at improving quality of delivered products by means of Lean and Six Sigma statistical techniques:

Parmon S.p.A., Belpasso (Catania), Italy, <u>www.parmon.it</u>, production of nappies: Implementation of Statistical Quality Control techniques, Design of Experiments;

Dolfin S.p.A., Giarre (Catania), Italy, <u>www.dolfin.it</u>, food industry: Implementation of Statistical Quality Control techniques;

Sibeg S.r.I., Catania, Italy, <u>www.sibeg.it</u>, The Coca-Cola Company bottler: Implementation of Statistical Quality Control techniques, Process Capability Analysis, Gauge R&R studies, Design of Experiments;

ST Microelectronics, Catania Plant, Italy, <u>www.st.com</u>, semiconductor products manufacturer:

Implementation of Statistical Quality Control techniques, Gauge R&R studies, Design of Experiments, Analysis of Customer Complaints, Lean Six Sigma projects for the reorganization of manufacturing areas;

Research

Main topics:

Author of about 130 papers published on peer reviewed international journals and conference proceedings. The main research interests are focused on:

- 1) the study and development of advanced statistical process monitoring tools. In particular, the largest part of research activities has been focused on the design of control charts for monitoring:
 - Finite horizon processes, (small production runs, low-volume production);
 - Non-normal observations, (distribution-free control charts);
 - The coefficient of variation and ratio of random variables;
 - Statistical process monitoring of extremes.
- 2) Development of operational research models for the scheduling of manufacturing processes and assembly lines;
- 3) Economic optimization of machining operations and multi-pass manufacturing processes.

International Collaborations in Research (present/past):

- Prof. P. Castagliola, LUNAM, Institute Universitaire de Technologie de Nantes & IRCCyN, France;
- Prof. S. Chakraborti Department of Information Systems, Statistics and Management Science, University of Alabama, USA;
- 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;
- Dr. A. Faraz, Centre for Quantitative Methods and Operations Management, HEC Management School, University of Liège, Liège, Belgium;
- Prof. M.B.C. Khoo, School of Mathematical Sciences, University of Sains Malaysia, Penang, Malaysia;
- Dr. M. Machado, Department of Production, FEG-UNESP, Guaratingueta, Brazil;
- Prof. P. Maravelakis, University of Piraeus, Department of Business Administration, Greece;
- Dr G. Nenes, Department of Mechanical Engineering, University of Western Macedonia, Greece;
- Prof. S. Psarakis, Department of Statistics, Athens University of Economics, Greece;
- Dr. S. Panagiotidou, Department of Mechanical Engineering, Aristotle University of Thessaloniki, Greece;
- Prof. A. Rakitzis, University of Aegean, Department of Mathematics, Karlovasi, Greece:
- Prof. E. Saniga, Department of Business Administration, University of Delaware, Newark, USA.
- Prof. H. Taleb, Higher Institute of Business Administration of Gafsa, University of Gafsa, Gafsa, Tunisia;
- Prof. K.P. Tran, Ecole Nationale Superieure des Arts et Industries Textiles (ENSAIT), Université de Lille, Roubaix, France;
- Prof. V. Tercero, Technologico de Monterrey, Monterrey, Mexico.

Visiting professor at:

- the Institut Universitaire de Technologie de Nantes, Université de Nantes, France, November 2006, June 2007, June 2008, November 2008, October 2009, Febraury 2010, October 2010, March 2011, November 2011, April 2013, November 2013, November 2014, Febraury 2018, November 2018.
- Aristotle University of Thessaloniki, Greece, September 2011.
- Universidade Estaudal Paulista, Faculdade de Engenharia, Campus de Guaratinguetá, Brazil., Brazil, November 2012, presenting an 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 Tecnologie Manifatturiere (AITeM)

Serving for International Journals

2019 – Member of the <u>Editorial Advisory Board</u> of *Engineering Reports*, Wiley, (forthcoming open access journal), https://onlinelibrary.wiley.com/journal/25778196

2010 – present: <u>Associate Editor</u> of *Quality Technology and Quantitative Management*, Taylor and Francis, https://www.tandfonline.com/loi/ttqm20.

2012 - 2017: <u>Member of the Editorial Board</u> of *Journal of Industrial Engineering*, Hindawi Publishing Company, ISSN: 2314-4890

Reviewing activity for, among the others:

Communications in Statistics – Theory and Methods

Computers & Industrial Engineering

European Journal of Operational Research

European Journal of Industrial Engineering

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

Journal of Quality Technology

Mathematical and Computer Modelling

Pakistan Journal of Statistics

Quality Technology and Quantitative Management

Scientia Iranica

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.

Member of International Program Committee:

ISSAT International Conference on Data Science in Business, Finance and Industry, Da Nang (Vietnam), July, 3-5, 2019

ISSAT International Conference on Data Science in Business, Finance and Industry, Da Nang (Vietnam), July, 1-3, 2020

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

Speaker presenting research papers at the following Conferences:

- 2nd World Manufacturing Congress, Durham (United Kingdom), September 27-30, 1999;
- 2. 4th A.I.Te.M. Conference, Brescia (Italy), September 13-15, 1999;
- 3. XX Convegno Nazionale della Associazione Italiana Cultura Qualità, Bologna (Italy), May 15-17, 2000;

- 4. 2nd CIRP International Seminar on Intelligence Computation in Manufacturing Engineering, Capri (Italy), June 21-23, 2000;
- Conferenza Annuale dell'Italian Society for Computer Simulation, Lecce (Italy), December 15, 2000;
- 6. International CIRP Design Seminar, Stockholm (Sweden), June 6-8, 2001;
- 7. Progress in Innovative Manufacturing Engineering (PRIME) International Conference, Sestri Levante (GE), (Italy), June 20-22, 2001;
- 8. 5th A.I.Te.M. Conference, Bari (Italy), September 18-20, 2001;
- 9. 3rd CIRP International Seminar on Intelligence Computation in Manufacturing Engineering, Ischia (Italy), July 3-5, 2002;
- 10.6th ESAFORM Conference on Material Forming, Salerno, (Italy), April 28-30, 2003;
- 11.5th Intern. Confer. On Quality, Reliability and Maintainance (QRM 2004), Oxford (UK), April 1-2, 2004;
- 12. International Conference on Industrial Engineering and Systems Management (IESM 2005), 16-19 May 16-19, 2005, Marrakech, (Morocco);
- 13.7th A.I.Te.M. Conference, 7-9 September 7-9, 2005 Lecce (Italy);
- 14. The 33rd International Conference on Operational Research Applied to Health Services, July 15-20, 2007, St Etienne (France);
- 15.8th A.I.Te.M. Conference, September 10-12, 2007, Montecatini Terme (Italy).
- 16.2nd DOE User Meeting, March 10-12, 2008, Berlin, (Germany).
- 17. International Symposium on Business and Industrial Statistics (ISBIS 2008), July 1-4, 2008, Prague, (Czech Republic).
- 18. International Symposium on Statistical Process Control, Nantes (France), July 16-17, 2009.
- 19. Congrès International Pluridisciplinaire en Qualité et Sureté de Fonctionnement, Qualita 2011, Angers (France), March, 22-25.
- 20.3rd International Symposium on Statistical Process Control, July 9-11, 2013, Athens, Greece.
- 21.4th International Symposium on Statistical Process Control, July 7-9, 2015, Padua, Italy.
- 22.6th International Symposium on Statistical Process Monitoring, Tunisi, (Tunisia), July 8-12, 2019.

23.19th Annual Conference of the European Network of Business and Industrial Statistics, Budapest, (Hungary), Sept. 2-4, 2019