

PERSONAL INFORMATION

Donato Perfetto, PhD

Via Roma 29, 81031 Aversa (Italia)

Mobile: +39 339 6080 685 | email: donato.perfetto@unicampania.it

Gender Male | Date of birth 05/03/1993 | Nationality Italian

CURRENT ACADEMIC POSITION

01/12/2020 – to date

Postdoctoral Research Associate – Department of Engineering of the University of Campania Luigi Vanvitelli. SC 09/A3; SSD 09/A3.

Research Activity: Structural Health Monitoring, Machine Design.

QUALIFICATION

09/06/2023 – 09/06/2034

▪ National scientific Qualification (ASN - Abilitazione Scientifica Nazionale) to function as Associate Professor in Italian Universities – disciplinary field of 09/A3 – Industrial design, machine construction and metallurgy (art. 16, comma 1, Law 240/10).

2019

▪ Passed the government exam and licensed as Professional Engineer (Italian Legislation).

EDUCATION

01/11/2017 – 08/01/2021

▪ Doctor Europaeus in Industrial and Information Engineering – Department of Engineering of the University of Campania Luigi Vanvitelli.

Thesis: “Numerical Design Techniques and Detection Criteria of a Guided Wave-Based Structural Health Monitoring System for Real Fibre-Reinforced Polymeric Composite Structures”.

09/2014 – 07/2017

▪ Master’s Degree in Mechanical Engineering, *summa cum laude* - University of Campania Luigi Vanvitelli.

Thesis: “Numerical simulation of Lamb waves propagation in a GFRP aircraft winglet for SHM purposes”.

09/2011 – 02/2015

▪ Bachelor’s Degree in Aerospace-Mechanical Engineering, *summa cum laude* - University of Campania Luigi Vanvitelli.

Thesis: “Parametric investigation on the tensile strength of an hybrid (composite-metal) bonded-bolted joint”.

RESEARCH EXPERIENCES IN ITALY

15/12/2021 – to date

▪ Postdoctoral Research Associate - Department of Engineering of the University of Campania Luigi Vanvitelli – funded by MUR within the framework of the PON “DESIRE”.

Title: “Techniques and methodologies for monitoring the health of industrial products and processes for maintenance purposes”.

01/12/2020 – 30/11/2021

▪ Postdoctoral Research Associate - Department of Engineering of the University of Campania Luigi Vanvitelli – funded within the framework of V:ALERE2019 Research Program by the research Project “SCISSOR”.

Title: “Design and modelling of virtual environments for product and process engineering”.

01/09/2021 – 01/10/2021

▪ Occasional self-employed role for research support activities - Department of Engineering of the University of Campania Luigi Vanvitelli – as part of the research project “CAPRI”, funded by the Aerospace Technological District of Campania (DAC) under the measure PON Ricerca & Competitività 2007-2013 (Campania Region).

Title: “Investigation on ultrasonic guided wave propagation mechanisms in stiffened structures”.

15/05/2020 – 04/06/2020

▪ Occasional self-employed role for research support activities - Department of Engineering of the University of Campania Luigi Vanvitelli – as part of the intra-academic competitive research Project “DEWO4SME”, funded by Campania Region.

Title: “Investigation on ultrasonic guided wave propagation mechanisms in composite materials”.

INTERNATIONAL RESEARCH EXPERIENCE

21/10/2019 – 24/03/2020,

Visiting PhD Student - Imperial College of London – Department of Aeronautics, South Kensington Campus. Supervisor MH Ferri Aliabadi.

Activities: Structural Health Monitoring systems based on ultrasonic guided/elastic wave propagation in isotropic and fibre-reinforced composite materials; modelling of the dispersive nature of Lamb waves by means of the Finite Element method; effect of real operating conditions, as varying temperature, on guided waves.

ACADEMIC TEACHING ACTIVITIES

07/09/2022 – to date

Adjunct Professor – Department of Industrial Engineering – University of Salerno

Course: Structural Design and Manufacturing of Mechanical Components (3 ECTS).

AWARDS, PATENTS

Patents

▪ Patent application n. UIBM 102022000012982 – 20/06/2022 “Dispositivo e metodo per l’identificazione di danni strutturali” (Owner and Inventor).

▪ Patent extension application PCT/IB2023/056327 – 01/09/2023 “Method and device for the identification of structural damages” (Owner and Inventor).

Awards

▪ Software Simulation Award – 51st International Conference on Stress Analysis AIAS 2022. Work entitled “Virtual simulations for structural health monitoring in hydrogen vessel”; A. De Luca, D. Perfetto, A. Aversano, A. Poverino, N. Rezazadeh, R. Vallifuoco, A. Minardo, G. Lamanna, F. Caputo.

▪ Software Simulation Award – 47th International Conference on Stress Analysis AIAS 2018. Work entitled “Vertical Crash of a Composite Fuselage Section”; A. De Luca, D. Perfetto, A. Greco, G. Lamanna, F. Caputo.

ADDITIONAL ACTIVITIES

Editorial activities

▪ Reviewer for several international peer-reviewed and indexed journals.

▪ Guest Editor for the Special Issue entitled: Recent Advances in Smart Design and Manufacturing Technology, Machines – MDPI.

Conferences

▪ Scientific Committee at 7th International Conference POLCOM (Progress on Design Techniques and Manufacturing Technologies for Advanced Products and Processes in the Modern Era); Scientific Committee at IWAR 2023 Conference - VII International Workshop on Autonomous Remanufacturing; Scientific Committee at 6th International Conference POLCOM (Progress on Polymer and Composite Products and Manufacturing technologies); Organizing Committee at International Joint Conference on Mechanics, Design Engineering and Advanced Manufacturing (JCM 2022); Organizing Committee at 9th International Conference “Time of Polymers and Composites” (TOP 2018).

▪ Speaker at several national and international conferences.

RESEARCH PROJECTS

09/2022 – 10/2023

▪ Member of “GENESIS – self-diaGnostic hydrogEN vESsel Integrity System”, awarded for a total funding of € 65,000.00 within the applied and industrial research projects for type A and B Research Fellows – University of Campania Luigi Vanvitelli.

09/2020 – 12/2021

▪ Member of “SAFES – Smart pAtch For activE Shm”, awarded for a total funding of € 23,000.00 within the applied and industrial research projects for type A and B Research Fellows V:ALERE2020 Programme – University of Campania Luigi Vanvitelli.