VITAE

André Jesus

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Personal

Full name:	André Henriques Jesus	Nationality:	Portuguese
Place of birth:	Levanto, Italy	Marital status:	Married

Education

2022-	Fellow of the Higher Education Academy (Advance HE)
2018-	Graduate member of Institution of Civil Engineers (ICE)
2018	PhD in Civil Engineering - University of Warwick;
2012	Professional degree of Civil Engineer, (Portuguese Engineering Association)
2010	Integrated Masters, Structural Engineering, Nova, University of Lisbon (ECTS B grade);

Appointments and External activities

2023-	Visiting Professor - Polytechnic University of Milan, Italy
2022-	Lecturer in Structural Engineering at Loughborough University
2019-2022	Lecturer in Civil and Structural Engineering at the University of the West of England
2018-2019	Postdoctoral Research Assistant at the University of West London
2017-2018	Teaching fellow at the University of Warwick;
2013-2014	Research assistant, "Precaseismic" project;
2011-2013	Research assistant, "Smartrack" project;
2010-2012	Teaching assistant, at the Nova, University of Lisbon;
2010-2011	Research assistant,"Hybrid-Trefftz Finite Element Applications" project.

Honours/Awards

- Dec 2017 – "Best paper" award, International Conference on Structural Health Monitoring of Intelligent Infrastructure (SHMII-8), Brisbane;

- Apr 2017 – Winner of the best oral presentation competition in the civil research group, School of Engineering University of Warwick;

Grants and Studentships

Grants

- 2021 SIMPLES — Spectral Identification of Modal Properties in LightwEight Structures, Vice Chancellor Early Career Research Award (£15000)

- 2021 [Determining material properties for advanced composites using machine learning techniques](), Faculty of Environment and Technology student engagement research project (£3000)

- 2021 Raspberry Pi cluster, Faculty of Environment and Technology student engagement research project (£3000)

Studentships

- 2014 "Uncertainties on Structural Health Monitoring Procedures"; EPSRC (EP/N509796 1568046) PhD studentship

- 2013 [Precaseismic]() – Behaviour of Precast Concrete Structures under Seismic Actions; Foundation of Science and Technology (FCT, Portuguese government) Bursary funded research assistant studentship

- 2011-2012 [Smartrack]() – SysteM dynamics Assessment of Railway TRACKs; FCT Bursary funded research assistant studentship

- 2010 [Hybrid-Trefftz Finite Element Applications](); Foundation of Science and Technology (FCT, Portuguese government) Bursary funded research assistant studentship

Supervisory Experience

Year	Description
2023-	Supervision of two PhD students at Loughborough University, UK
2021	Supervision of one MEng project at the University of the West of England.
2019	Supervision of seven students' final year projects at the University of the West of England.
2018	External co-supervision of PhD student Hans Moravej from Queensland's University of Technology (QUT), Australia.
2015	Co-supervision of one Master's final year group project at the University of Warwick.
2014	Co-supervision of three students' final year projects at the University of Warwick.

Teaching Experience

- Lecturer in Structural Engineering – Loughborough University

Date	Module	Year	H/week	N. students
2023–24	Structural Dynamics and Earthquake Engineering	MSc, MEng	6	36
2022–24	Design of Concrete and Masonry Structures	2nd	4	33
2022–24	Analysis & Design of Steel and Timber Structures	2nd	4	33
2022–23	Tectonics	1st	5	140

- Lecturer in Civil and Structural Engineering – University of the West of England

Date	Module	Year	H/week	N. students
2019–21	Nonlinear structural analysis [1]	MSc, MEng	6	33
2019–21	Computational Civil Engineering [1]	3rd[2]	7.5	65
2020	Engineering Principles	1st[2]	4	95
2019–21	Advanced Structural Analysis	3rd[2]	2	53
2019–21	Engineering Graphics and Communications[1]	1st[2]	7	78
2019	Architecture Design Studio 1	1st[2]	1	320

- Teaching Fellow – University of Warwick, School of Engineering

Date	Module	Year	Hours/week	No. students
2018	ES3D10 – Concrete Structures	3rd	3-6	41
2018	ES192 – Engineering Design	1st	12	52

- Teaching assistant – Nova, University of Lisbon, Faculty of Science and Technology

Date	Module	Semester	Hours/week	
2010/11	Structural Analysis I	6/10	2	teacher
2010/11	Statics	2/10	4	teacher
2011/12	Solid Dynamics	4/10	2	teacher
2011/12	Continuum Mechanics	3/10	6	teacher and demonstrator

- Demonstrator – University of Warwick, School of Engineering 2015/2017 (120 hours/year) Modules: Engine strip; Wind tunnel; Design for function soldering of electronic components; Failure of I beams under mid-span point loads; MATLAB signal processing; Pulse-width modulation; Introduction to elementary electronic components; Bending moment diagrams, Statics; Warwick Bridge Lab; Free and Forced Vibration Lab (MATLAB).

Skills

Extensive experience on usage of various programming languages and operating systems: advanced proficiency with Linux distributions.

Software	
Vector Image	Auto CAD, Inkscape, Blender, FreeCAD
Raster Image	Photoshop, Gimp
Structural/FEM	SAP 2000, Robot, ANSYS/LS-Dyna (APDL)
Operational Modal Analysis	ARTeMIS (Testor, Extractor)
System-design	LabView
RDBMS/CMS	MySQL/Wordpress
Version control system	Git/GitHub
Text Processor/Editor	LaTeX, Emacs
Office	Excel, Power Point, Word
Learning platforms	Blackboard and Moodle
Scientific computing	MATLAB, Fortran, APDL, Python, Bash
Web development	HTML, JavaScript, PHP
Working environments	Linux macOS and Windows

- Proficiency with accelerometers, thermocouples, anemometers, strain gauges, load cells, string gauges, linear variable differential transformers and geophone sensors;

- Proficient with shaker and hammer testing for input-output modal testing;

- Proficiency with circuit boards/flight controllers such as Raspberry Pi, Arduino and Seriously Dodo;

- Experience as a 3D printing operator (RepRap Prusa i3), having built two fully operational 3D printers and a racing quadcopter;

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[1]Module leader
[2]BEng(Hons) and Civil Engineer Degree Apprenticeship

Languages

	Reading	Writing	Speaking	Listening
Portuguese (native)	fluent	fluent	fluent	fluent
English	fluent	fluent	fluent	fluent
Italian	fluent	good	fluent	fluent
Spanish	fluent	fair	good	good
French	good	poor	fair	fair

poor → fair → good → fluent

Other information

Journals reviewer

Engineering Structures; Mechanical Systems and Signal Processing; Journal of Bridge Engineering; Sensors MDPI; Frontiers in Built Environment; Engineering; International Journal of Theoretical and Applied Multiscale Mechanics

Academic transfer activities

2008/2009 – Erasmus Programme, Sapienza University of Rome, Italy
Completed modules: Theory and design of bridges; Repair and rehabilitation of structures; Nonlinear structural analysis (distinction).

Courses/Seminars/Organisation of Scientific Events

2024	Delivered IStructE Course on Reliability, resilience and robustness in structural engineering design
2022-	Member of the International Society for Structural Health Monitoring of Intelligent Infrastructure (ISHMII)
2021-	Member of the Engineering Modelling and Simulation Group at UWE
2017-	Member of the "Warwick Centre for Predictive Modelling";
2016	Attended the Hartree Summer School in High Performance Computing
2014	Attended the "University of Algarve's 1st 3D Printer Assembly Workshop";
2014	Completed 6.002x Circuits and Electronics from edX, MIT online course (distinction);
2013	Member of the board committee of the 11th International Conference on Vibration Problems (ICOVP-2013), 9-12 September, 2013, Lisbon, Portugal;
2012	Attended the international seminar "Structural Condition Assessment of Bridges: Past, Present and Future" held in Lisbon;
2010-	Member collaborator of "UNIC - The Research Center in Structures and Construction of the Nova, University of Lisbon"
2009	SAP2000 course, officially recognised by Computers and Structures Inc.

Hobbies and other interests

Photography, Piano, Drone racing, 3D printing.

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