Dr CHRISTIAN MÁLAGA-CHUQUITAYPE

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I. Education

2012 **PhD** in Structural and Earthquake Engineering, **Imperial College London** (UK) **Unwin Prize for the best PhD Thesis in Civil & Environmental Engineering.** Thesis: Seismic design and assessment of steel structures incorporating tubular members

2007 **MSc** in Earthquake Engineering, **ROSE School, Università degli studi di Pavia** (Italy) – PGA: A+ including a first term at Imperial College with all A*s & As

2007 **MProf** (Master Professionnel) in Engineering Seismology, **Université Joseph Fourier** (France)

2000 **BEng** (Bachiller) en Ingenieria Civil, **Universidad Nacional San Agustin de Arequipa** (Peru)

II. Research Keywords

- Earthquake engineering and structural dynamics (e.g. steel, timber, rocking)
- Performance-based design and assessment in extreme scenarios (e.g., seismic, off-Earth)
- Artificial intelligence in structural engineering and design
- Computational modelling (wood, damage-plasticity, long-term, non-smooth)
- Low-cost vibration and video-based sensing
- Experimental methods (large and reduced scale)

III. Selected Awards & Prizes

Best Research Paper, Institution of Structural Engineers UK	2019
Commendation for Excellence in Engineering Education, Institution of Structural Engineers UK	2018
TK Hsieh Research Award, Best Paper, Institution of Civil Engineers	2015
Unwin Prize, Best PhD Thesis, Department of Civil and Environmental Engineering	2012
Dorothy Hodgkin Postgraduate Award, PhD studies from the EPSRC and Tata Steel	2007-2011
Prize for Highly Commended Poster, Graduate School, Imperial College London	2010
Prize for Highly Commended Poster, Department of Civil & Environmental Engineering	2010
Macedonian Association for Earthquake Engineering Student Grant, to present at 14th ECEE	2010
Paviors Laing Award, Worshipful Company of Paviors. To visit UC Berkeley, USA	2009
Old Centralians' Trust Award	2009
Huixian Earthquake Engineering Foundation Young Researcher Grant, to present at 14th WCEE	2008
Imperial College Trust Award	2008
European Commission Full Scholarship, towards MSc studies	2005-2007
Public Commendation (highest honour) for the best Degree Dissertation, UNSA, Peru	2004

IV. Publications

A strong publication record with over 130 publications including 70+ high-quality journal papers in the areas of structural dynamics, mechanics, computational modelling, earthquake engineering, artificial intelligence, and applied dynamics**.** Many of these publications have received highly-cited and most-downloaded certificates. **See Appendix A - Google Scholar, Scopus, ResearchGate**

V. Employment

Academic:

Since 2017 **Assoc. Prof. (Senior Lecturer) in Structural Engineering**, Department of Civil and Environmental Engineering, *Imperial College London (UK)*. Research, teaching, and admin responsibilities at the UG and PG levels.

- Director of UG admissions
- Director of the MSc Programme in Earthquake Engineering
- Post-doc and Fellows Champion

My teaching duties at the PG level include: Seismic Design of Steel Structures, Structural Dynamics, Design of Timber Structures.

My teaching duties at the UG level include: Structural Dynamics, Design of Timber Structures, Building Resilient Structures: The Science and Art of Earthquake Engineering.

I also teach the structural components of the Integrated Space Science and Engineering CPD programme.

2013-2017 **Assist. Prof. (Lecturer) in Structural Engineering**, Department of Civil and Environmental Engineering, *Imperial College London (UK)*.

2011-2013 **Research Associate**, *Imperial College London (UK).* Actively involved in:

- **Advanced design methods for blast loaded steel structures – ADBLAST**. A large collaborative European project studying industrial structures subjected to vapour cloud explosions.
- **Seismic response of composite timber/bamboo lightweight structures**. In collaboration with Arup. Experimental studies on the seismic response of low-cost sustainable houses for El Salvador.

2010-2013 **Academic Advisor**, *CinERGIA (Peru*). CinERGIA. A student-led initiative aimed at generating impact on the urban environment through a better interaction between engineering and architecture professionals.

2007-2011 **Research Assistant,** *Imperial College London (UK*). PhD funded by Tata Steel and EPSRC to develop design guidance for the design of connections to tubular members.

2009 **Visiting Lecturer**, *Universidad Católica de Santa Maria (Peru).* In charge of the organization and delivery of a post-graduate course in Earthquake Resistant Design.

2004-2005 **Assistant Professor,** *Universidad de San Agustin (Peru).* Lecturing various courses at the undergraduate level. I was also involved in the management of the Faculty of Civil Engineering's social projects.

Industrial experience:

2015, 2013 **Imperial Consultants**, Expert opinion for Advanta Global on behalf of Swiss Re on the causes of damage and collapse of high-profile structures.

2004-2005 **Engineering Consultant**, *Peruvian College of Engineers (Peru)*. Expert advice on the structural safety of seismically damaged structures after the 2001 Great Ica Earthquake on behalf of the Peruvian College of Engineers.

2003 **Infrastructure Supervisor**, *PRONAMACHS Agencia General Sánchez Cerro (Peru)*. Supervision of the construction works of several hydraulic projects and formulation of sustainable development strategies for Andean micro-basins.

2002 **Resident Engineer**, *PRONAMACHS Agencia Caylloma-Arequipa (Peru)*. Construction management of several irrigation projects and a number of small-scale community development infrastructure works.

2001 **Geographic Information Systems (GIS) Developer**, Design and development of GIS systems in support of strategic development schemes: *PRONAMACHS Gerencia Departmental Arequipa (Peru), Proyecto Majes-Siguas – AUTODEMA (Peru)*.

VI. Research Supervision

To date, I have **graduated 11 PhD** students, and I have supervised **3 Post-doctoral Researchers.** My Research Group has currently **9 PhD** students. Many of my students have won important research prizes from the IStructE and the Faculty of Engineering at Imperial College. **See Appendix B** for details.

I have supervised and co-supervised **over 75 MSc and MEng students**.

VII. Funds attracted and Contracts

Over £1.1M in contracts and research grants from UK, EU, Latin American and African funding bodies, and industrial investors. **See Appendix C.**

VIII. Services to the Profession and Evidence of Esteem

- Listed in Stanford/Elsevier's Global Top 2% Scientist Ranking 2023-2024
- **Associate Editor** of *Structures* (Elsevier, from 2024) and *Journal of Innovative Infrastructure Solutions* (Springer, from 2022). **Guest-Editor** for *Engineering Structures* (Elsevier, 2024-2025) for a *Special Issue in Cutting-edge AI-driven Design, Analysis, and Optimization of Engineering Structures.* **Academic Editor** of *Shock and Vibration* (Wiley, from 2025). **Member of the EC Editorial Boards** of *Engineering Structures* (Elsevier, from 2025) and *Computers & Structures* (Elsevier, from 2025). **Past Regional Editor for Europe** of the International Journal for Earthquake and Impact Engineering (Inderscience, 2019-2020). Review Editor and **Special Topic Editor** for Frontiers in the Built Environment (Frontiers Foundation, 2023)
- Deputy Delegate of the UK to the EAEE and IAEE (European and International Associations of Earthquake Engineering)
- Elected Committee member of SECED (UK Society for Earthquake and Civil Engineering Dynamics)
- Active Member of the Engineering Mechanics Institute (ASCE) – Dynamics Committee
- Invited Expert to the **CEN/TC250/WG11 TC** group drafting European Technical Specification for the Design of Timber Structures Assisted by Numerical Methods. Member of the **BSI B/525/8 Committee** (2016–2019). Member of the **BSI B/525/5 Committee** (2024–present). Member of the **CEN/TC 250/SC 5/WG 11** (2004–present), UK representative Member to the **ISO/TC 165/WG 10** (2025–present)
- Member of the **Space Engineering and Construction (SEC) Technical Committee** of the ASCE **Aerospace Division (ASCE)** drafting the Lunar Infrastructure Engineering, Design, Analysis, and Construction (LIEDAC) Guidelines
- Imperial College's delegate to the **EFHER:** European Facilities for Earthquake Hazard and Risk
- Member, Engineering and Physical Sciences Research Council **(EPSRC) Peer Review College** (2022–present). International Reviewer, **Swiss National Science Foundation** (2018 - present). International Reviewer, **CONCYTEC, Peru** (2018 - present). International Reviewer, **CONICYT, Chile** (2019 - present)
- External Examiner for PG Earthquake Engineering and Infrastructure Resilience MSc at the University of Bristol (UK) from 2022-2025
- Subject External Examiner for UK degree programmes at the University of Portsmouth, University of Aberdeen, Anglia Ruskin University, University of Brighton.
- External Examiner for PhD theses at: University of Oxford (UK), University College London (UK) x3, University of Bristol (UK), University of Trieste (Italy) x2, University of Trento (Italy), Griffith (AU), University of Edinburgh (UK), ETH Zurich (Switzerland) x2, Galway (Ireland), U of Iceland (Iceland).
- Scholarships committee panel member for several College and departmental calls.
- Actively participated in the organization of National and International Conferences and member of various learned societies.
- Media Documentaries: Unearthed, TV Series, 2022. Disasters Engineered, TV Series, 2019.
- Media Reporting: What caused the Myanmar earthquake - and why did it make a tower in Bangkok collapse? (BBC). Bangkok reviews construction safety after a high-rise was crumpled by an earthquake 800 miles away (Associated Press / Globe and Mail). 'How was this approved?': Thai