

Curriculum Vitae Dr. Georgios A. Drosopoulos

Personal Details

Date and Place of Birth: 30.08.1977, Athens, Greece
Marital Status: Married, two children
Army Obligations: Fulfilled, 2006-2007 (Compulsory in Greece)
Home Address: Durban North, Durban, South Africa
Telephone: +27 31 260 3047
URL: <http://secm.ukzn.ac.za>

Education

2009 – 2010 **Master of Science**
School of Pedagogical & Technological Education, Ioannina, Greece
Final Grade: 9.50/10.00
Undergraduate thesis: “Didactics in Lessons of Civil Engineering”

2002 – 2006 **PhD in Structural Engineering**
Department of Material Science and Engineering, University of Ioannina, Greece
“Non Linear Finite Element Analysis of Stone Arch Bridges with the Usage of a Unilateral Contact-Friction Model”

1996 – 2002 **Diploma in Civil Engineering (5 years)**
National Technical University of Athens, Greece
Final Grade: 6.97/10.00
Diploma thesis: “Experimental Investigation of the Behavior of Real Scale Concrete Columns, Designed to Older Regulations, Under Biaxial Loading”

Professional Activity

Professional Membership

Technical Chamber of Greece (Chartered Civil Engineer - March 2007)
Greek Association of Civil Engineers

Professional Experience

- 2016 (July) – present **Senior Lecturer, Civil Engineering**
University of KwaZulu-Natal, Durban, South Africa
- 2012 – 2016 **Post-Doctoral Researcher**
- 2014 (June) - 2016 (June): Institute of Computational
Mechanics and Optimization, Technical University of Crete,
Greece (<http://www.comeco.tuc.gr/>)

- 2012 - 2014 (May): Institute of Continuum Mechanics, Leibniz
University of Hannover, Germany
(<http://www.ikm.uni-hannover.de/>)
- 2007 – 2012 **Research Associate**
Institute of Computational Mechanics and Optimization,
Technical University of Crete, Greece
- 2010 – 2011 **Teaching Structural Engineering**
Sivitanidios Public School of Trades and Vocations, Upper
Technical Secondary Education of Greece, Athens, Greece
- 2010 **Consultant Engineer**
(March-September 2010) Greek Ministry of Culture, Consulting
Structural Engineer, Restoration of Monuments
- 2007 – 2010 **Structural Supervisor and Consultant Engineer (full time)**
Structural Supervisor and Consultant of Various Civil
Engineering Projects (reinforced concrete and steel
buildings)

Distinctions

- C-3 Rated Scientist, National Research Foundation of South Africa (NRF)

Scientific Activity

Book Chapters

1. Invited Book Chapter for the Book (2018, in press): Computer Analysis and Design of Masonry Structures, Editor Dr. John W Bull, Saxe-Coburgh Publications, Title of Contribution "Reinforcement of Stone Arch Bridges: Unilateral Contact Models and Limit Analysis" by **Drosopoulos G.A.**, Stavroulakis G.E., Massalas C.V., ISBN 978-1-874672-44-9

Publications – Refereed Full Papers

15. Stavroulaki M.E., **Drosopoulos G.A.**, Tavlopoulou E., Skoutelis N., Stavroulakis G.E. (2018), "Investigation of the Structural Behaviour of a Masonry Castle by Considering the Actual Damage", International Journal of Masonry Research and Innovation 3

14. Koutsianitis P., Tairidis G., **Drosopoulos G.A.**, Foutsitzi G., Stavroulakis G.E. (2017), "Effectiveness of Optimized Fuzzy Controllers on Partially Delaminated Piezocomposites", *Acta Mechanica* 228, 1373-1392
13. Conde B., **Drosopoulos G.A.**, Stavroulakis G.E., Riveiro B., Stavroulaki M.E. (2016), "Inverse Analysis of Masonry Arch Bridges for Damaged Condition Investigation: Application on Kakodiki Bridge", *Engineering Structures* 127, 388-401
12. Stavroulaki M.E., Riveiro B., **Drosopoulos G.A.**, Solla M., Koutsianitis P., Stavroulakis G.E. (2016), "Modelling and Strength Evaluation of Masonry Bridges Using Terrestrial Photogrammetry and Finite Elements", *Advances in Engineering Software* 101, 136-148
11. **Drosopoulos G.A.**, Kaminakis N., Papadogianni N., Stavroulakis G.E. (2016), "Mechanical Behaviour of Auxetic Microstructures Using Contact Mechanics and Elastoplasticity", *Key Engineering Materials* 681, 100-116
10. Kaminakis N., **Drosopoulos G.A.**, Stavroulakis G.E. (2015), "Design and Verification of Auxetic Microstructures Using Topology Optimization and Homogenization", *Archive of Applied Mechanics* 85, 1289-1306
9. **Drosopoulos G.A.**, Wriggers P., Stavroulakis G.E. (2014), "A Multi-Scale Computational Method Including Contact for the Analysis of Damage in Composite Materials", *Computational Materials Science* 95, 522-535
8. Abdalla K.M., **Drosopoulos G.A.**, Stavroulakis G.E. (2014), "Failure Behaviour of a Top and Seat Angle Bolted Steel Connection with Double Web Angles", *Journal of Structural Engineering (ASCE)* 141, 04014172-1-13
7. Kalogeropoulos A., **Drosopoulos G.A.**, Stavroulakis G.E. (2012), "Thermal-Stress Analysis of a Three-Dimensional End-Plate Steel Joint", *Construction and Building Materials* 29, 619-626
6. **Drosopoulos G.A.**, Stavroulakis G.E., Abdalla K.M. (2012), "3D Finite Element Analysis of End-Plate Steel Joints", *Steel and Composite Structures, An international Journal* 12, 93-115
5. Campo M., **Drosopoulos G.A.**, Stavroulakis G.E. (2009), "Unilateral Contact and Damage Analysis in Masonry Arches", *Vietnam Journal of Mechanics* 31, 185-190
4. Betti M., **Drosopoulos G.A.**, Stavroulakis G.E. (2008), "Two non-Linear Finite Element Models Developed for the Assessment of Failure of Masonry Arches", *Comptes Rendus Mecanique* 336, 42-53
3. **Drosopoulos G.A.**, Stavroulakis G.E., Massalas C.V. (2008), "Influence of the Geometry and the Abutments Movement on the Collapse of Stone Arch Bridges", *Construction and Building Materials* 22, 200-210
2. **Drosopoulos G.A.**, Stavroulakis G.E., Massalas C.V. (2007), "FRP Reinforcement of Stone Arch Bridges: Unilateral Contact Models and Limit Analysis", *Composites Part B: Engineering* 38, 144-151

1. **Drosopoulos G.A.**, Stavroulakis G.E., Massalas C.V. (2006), "Limit Analysis of a Single Span Masonry Bridge with Unilateral Frictional Contact Interfaces", *Engineering Structures* 28, 1864-1873

Publications - Conferences Proceedings

38. **Drosopoulos G.A.**, Stavroulakis G.E. (2017), "Multi-scale Homogenization for Masonry Structures", 5th *International Conference on Computational Contact Mechanics (ICCCM)*, Lecce, Italy

37. Stavroulaki M.E., Skoutelis N., Maravelaki N.-P., **Drosopoulos G.A.**, Stavroulakis G.E. (2017), "Fragokastello Sfakia: Restoration and Conservation Through Compatible Architectural, Structural and Construction Materials", *International Conference "Coordinating Engineering For Sustainability and Resilience"*, Jordan University of Science and Technology, Dead Seas – Jordan

36. Riveiro B., Conde B., **Drosopoulos G.A.**, Stavroulakis G.E., Stavroulaki M.E. (2016), "Fully Automatic Approach for the Diagnosis of Masonry Arches from Laser Scanning Data and Inverse Finite Element Analysis", *10th International Conference on Structural Analysis of Historical Constructions (SAHC)*, Leuven, Belgium

35. Stavroulakis G.E., Syntzanakis A., Georgellis A., **Drosopoulos G.A.**, (2016), "Auxetic Structures Subjected to Dynamic Loads", *9th German-Greek-Polish Symposium, Recent Advances in Mechanics, Chania, Greece*

34. Papadogianni N., Kaminakis N., **Drosopoulos G.A.**, Stavroulakis G.E. (2016), "Contact Assisted Auxetic Microstructures", *Contact Mechanics International Symposium (CMIS)*, Warsaw, Poland

33. Koutsianitis P., Moutsopoulou A., **Drosopoulos G.A.**, Tairidis G.K., Foutsitzi G., Stavroulakis G.E. (2016), "Optimal Control Tuning in Smart Structures with Delaminations", *ECCOMAS Congress 2016, VII European Congress on Computational Methods in Applied Sciences and Engineering M. Papadrakakis, V. Papadopoulos, G. Stefanou, V. Plevris (eds.)*, Crete Island, Greece

32. **Drosopoulos G.A.**, Stavroulakis G.E., Wriggers P. (2015), "A Note on Convergence in Multi-scale Analysis with Unilateral cContact in the Microscale", *IV. International Conference on Computational Contact Mechanics*, Hannover, Germany

31. **Drosopoulos G.A.**, Koutsianitis P., Stavroulaki M.E., Riveiro B., Stavroulakis G.E. (2015), "Numerical Analysis of Masonry Structures, Taking into Account Measured Geometric and Material Data", *1st ECCOMAS Thematic Conference on International Conference on Uncertainty Quantification in Computational Sciences and Engineering M. Papadrakakis, V. Papadopoulos, G. Stefanou (eds.)* Crete Island, Greece

30. Koutsianitis P., Foutsitzi G., **Drosopoulos G.A.**, Tairidis G.K., Stavroulakis G.E. (2015), "Optimally Tuned Fuzzy Control for Smart, Possibly Damaged Piezocomposites", *3rd Polish Congress of Mechanics & 21st Computer Methods in Mechanics*, Gdansk, Poland

29. Tairidis G.K., Foutsitzi G., Koutsianitis P., **Drosopoulos G.A.**, Stavroulakis G.E. (2015), "Design and Testing of Fuzzy Controllers on Smart Structures in the Presence of Delamination", *Proceedings of the Fourth International Conference on Soft Computing Technology in Civil*,

Structural and Environmental Engineering, Y. Tsompanakis, J. Kruis and B.H.V. Topping, (eds.), Civil-Comp Press, Stirlingshire, Scotland

28. Conde B., **Drosopoulos G.A.**, Riveiro B., Stavroulaki M.E., Stavroulakis G.E. (2015), "Influence of Stones' Size on the Collapse of Masonry Bridges", *8th GRACM International Congress on Computational Mechanics, Volos, Greece*

27. **Drosopoulos G.A.**, Stavroulakis G.E. (2015), "A Multi-scale Approach Involving Delamination, Unilateral Contact and the XFEM Method for the Study of Heterogeneous Materials", *IV. International Conference on Computational Contact Mechanics, Hannover, Germany*

26. **Drosopoulos G.A.**, Stavroulaki M.E, Giannis K., Plymakis L., Stavroulakis G.E., Wriggers P. (2014), "Non-Linear Homogenization in Masonry Structures", *11th World Congress on Computational Mechanics (WCCM XI), 5th European Conference on Computational Mechanics (ECCM V), 6th European Conference on Computational Fluid Dynamics (ECFD VI), E. Oñate, J. Oliver and A. Huerta (Editors), Barcelona, Spain*

25. **Drosopoulos G.A.**, Stavroulaki M.E., Giannis K., Plymakis L., Stavroulakis G.E., Wriggers P. (2014), "Computational Homogenization in Masonry Structures", *Proceedings of the Twelfth International Conference on Computational Structures Technology, B.H.V. Topping and P. Iványi, (Editors), Civil-Comp Press, Stirlingshire, Scotland*

24. Stavroulaki M.E., Riveiro B., **Drosopoulos G.A.**, Arias P., Stavroulakis G.E. (2014), "Integrated Modeling and Evaluation of Masonry Bridges using Terrestrial Photogrammetry", *Proceedings of the Twelfth International Conference on Computational Structures Technology, B.H.V. Topping and P. Iványi, (Editors), Civil-Comp Press, Stirlingshire, Scotland*

23. **Drosopoulos G.A.**, Plymakis L., Stavroulakis G.E., Wriggers P. (2014), "Numerical Homogenization in Two-dimensional Elasticity Including Unilateral Cracks", *Proceedings in Contact Mechanics International Symposium (CMIS), Abu Dhabi, UAE*

22. **Drosopoulos G.A.**, Stavroulaki M.E., Stavroulakis G.E. (2013), "Homogenization and Elastic Analysis of Masonry Walls", *Proceedings of the 10th HSTAM International Congress on Mechanics, Chania, Crete, Greece*

21. **Drosopoulos G.A.**, Wriggers P., Stavroulakis G.E. (2013), "Contact Analysis in Multi-Scale Computational Homogenization", *Proceedings of 3rd International Conference on Computational Modeling of Fracture and Failure of Materials and Structures (CFRAC), Prague, Czech Republic*

20. **Drosopoulos G.A.**, Wriggers P., Stavroulakis G.E. (2013), "Incorporation of Contact Mechanics in Multi-level Computational Homogenization for the Study of Composite Materials", *3rd International Conference on Computational Contact Mechanics (ICCCM), Lecce, Italy*

19. Stavroulakis G.E., Giannis K., **Drosopoulos G.A.**, Stavroulaki M.E. (2013), "Non-linear Computational Homogenization Experiments", *Proceedings of the COMSOL Conference, Rotterdam, The Netherlands*

18. Stavroulakis G.E., Kaminakis N.T., **Drosopoulos G.A.** (2013), "Auxetic Microstructures: Topology Optimization and Numerical Homogenization", *Proceedings in the 8th German-Greek-Polish Symposium, Goslar, Germany*

17. Tsapara K., **Drosopoulos G.A.**, Stavroulakis G.E. (2013), "Finite Element Analysis of Fire Resistant Reinforcement on End-Plate Steel Connections", *COST, Proceedings of the International Conference, Application of Structural Fire Engineering*, Prague, Czech Republic
16. Kalogeropoulos A., **Drosopoulos G.A.**, Stavroulakis G.E. (2011), "Thermal-Stress Analysis of a 3-Dimensional End-Plate Steel Joint", *Proceedings of the 7th GRACM International Congress on Computational Mechanics*, Athens, Greece
15. Kalogeropoulos A., **Drosopoulos G.A.**, Stavroulakis G.E. (2011), "Thermomechanical Non-Linear Analysis: Finite Element Analysis of Bolted Steel Connections Using Contact Mechanics", *COST, Proceedings of the International Conference, Application of Structural Fire Engineering*, Prague, Czech Republic
14. **Drosopoulos G.A.**, Stavroulakis G.E., Stavroulaki M.E. (2011), "Unilateral Modelling and Related Identification in Masonry Structures", *Proceedings of the 2nd International Conference on Computational Contact Mechanics (ICCCM)*, Hannover, Germany
13. Stavroulaki M.E., **Drosopoulos G.A.**, Stavroulakis G.E. (2011), "Unilateral Analysis and Damage Identification in Masonry Structures", *Proceedings of the 13th CC2011 International Conference on Civil, Structural and Environmental Engineering Computing*, Crete, Greece
12. **Drosopoulos G.A.**, Stavroulaki M.E., Stavroulakis G.E. (2010), "Unilateral contact analysis for masonry bridges: Direct and inverse problems", *7th Meeting of Unilateral Problems in Structural Analysis*, Palmanova, Italy
11. **Drosopoulos G.A.**, Samaras S., Stavroulakis G.E., Abdalla K.M. (2010), "Non-Linear Behaviour of Bolted End-Plate Steel Connections: Experiment and Finite Element Analysis", *Proceedings of the 9th HSTAM International Congress on Mechanics*, Limassol, Cyprus
10. **Drosopoulos G.A.**, Samaras S., Stavroulakis G.E., Abdalla K.M. (2010), "Non-Linear Analysis of End-Plate Steel Connections with 3d Finite Elements with Contact and Friction", *Proceedings of the 31st International Symposium on Mechanics of Materials*, Crete, Greece
9. **Drosopoulos G.A.**, Stavroulakis G.E., Massalas C.V. (2008), "Unilateral Contact Analysis for Masonry Bridges", *1st Abaqus Users Conference*, Athens Golf Club, Glyfada, Greece
8. Zeris C.A., **Drosopoulos G.A.**, Pergantis G. (2007), "Testing of Non-ductile RC Columns Repaired / Strengthened with FRP Under Oblique Excitation", *Proceedings of the 8th International Symposium on Fiber Reinforced Polymer Reinforcement for Concrete Structures*, University of Patras, Patra, Greece
7. Betti M., **Drosopoulos G.A.**, Stavroulakis G.E. (2007), "On the Collapse Analysis of Single Span Masonry/Stone Arch Bridges with Fill Interaction", *Proceedings of the 5th International Conference on Arch Bridges*, Madeira, Portugal
6. **Drosopoulos G.A.**, Stavroulakis G.E., Massalas C.V. (2006), "Influence of the FRP Strengthening, the Shape and the Movement of Abutments on the Collapse of Arch Stone Bridges", *Proceedings of the 3rd European Conference on Computational Mechanics - Solids, Structures and Coupled Problems in Engineering*, Lisbon, Portugal

5. Zeris C., **Drosopoulos G.A.** (2006), "Experimental Investigation of Columns Designed to Older Design Regulations", *Under Oblique Excitation, Proceedings of the 15th Concrete Conference*, Alexandroupolis, Greece (in Greek)

4. **Drosopoulos G.A.**, Stavroulakis G.E., Massalas C.V. (2006), "FRP Reinforcement of Arch Bridges: Unilateral Models and Limit Analysis", *Proceedings of the 2nd International Conference on Nonsmooth/Nonconvex Mechanics with Applications in Engineering (NNMAE)*, Thessaloniki, Greece

3. Campo M., **Drosopoulos G.A.**, Fern´andez G.R., Stavroulakis G.E. (2006), "Unilateral Contact and Damage Analysis in Masonry Arches", *Proceedings of the International Union of Theoretical and Applied Mechanics-Symposium on Computational Contact Mechanics*, Hannover, Germany

2. **Drosopoulos G.A.**, Stavroulakis G.E., Massalas C.V. (2005), "Limit Load of a Masonry Arch Bridge Based on Finite Element Frictional Contact Analysis", *Proceedings of the 5th GRACM International Congress on Computational Mechanics*, Limassol, Cyprus

1. Stavroulakis G.E., **Drosopoulos G.A.**, Stavroulaki M.E., Massalas C.V., Liolios A.A. (2005), "Solvability and Limit Analysis of Masonry Bridges", *Proceedings of the 4th Contact Mechanics International Symposium (CMIS)*, Hannover, Germany

Research Metrics (January 2018)

Scopus: 124 Citations (Self-citations excluded), h-index: 6
Google Scholar: 211 Citations, h-index: 6, i10-index: 4

Student Supervision

2011 – Present

Supervisor / Co-Supervisor in Several Undergraduate, Master of Science and PhD Theses in Structural Engineering Computational Mechanics

Supervisor: 1 PhD Thesis (ongoing), 1 MSc Thesis (Completed, 2018), 1 MSc Thesis (ongoing), 3 Undergraduate Theses (Completed, 2016, 2017)

Co-Supervisor: 1 PhD Thesis (ongoing), 3 MSc Theses (Completed, 2012, 2014), 4 Undergraduate Theses (Completed, 2011, 2014, 2015, 2016)

Teaching Experience

2016 (July) - present

Teaching Structural Analysis, Civil Engineering Programme (full time), University of KwaZulu-Natal, Durban, South Africa

2015

Teaching Mechanics (in English), MSc Program: "Petroleum Engineering", School of Mineral Resources Engineering, Technical University of Crete, Greece

2010 – 2011

Teaching Structural Engineering, Sivitanidios Public School of Trades and Vocations, Upper Technical Secondary Education of Greece, Athens, Greece

- 2004 – 2005 **Teaching** “Introduction on the Computers” and “Introduction on the Usage of Multimedia Programs” – Department of Art Science, University of Ioannina, Ioannina, Greece
- 2002 – 2003 **Teaching** “Introduction to Mechanics” – Department of Material Science and Engineering, University of Ioannina, Ioannina, Greece

Research Projects

- 2017 – 2019 **Erasmus+**
Key Action 1: Mobility for learners and staff – Higher Education Student and Staff Mobility
- Position Co-Ordinators: Dr. Georgios A. Drosopoulos, Professor Georgios E. Stavroulakis
- Budget of the project 6 960.00€
- 2012 – 2015 **Successful Proposal for a Research Fellowship:**
Action of Supporting Postdoctoral Researchers co-financed by the European Social Fund (ESF) and the Greek State: “A Multiscale Approach on Non Smooth Contact Mechanics: Computational Interaction of Nano, Micro and Macro Scale”
- Position Principal Researcher
- Budget of the project 104 312.64€
- 2012-2015 **Archimedes III Research Project:**
Operational Programme “Education and Lifelong Learning” co-financed by Greece and the European Union: “Modelling, Simulation and Control of Composite Smart Structures”
- Position Assistant Researcher
- Budget of the project 89 000.00€
- 2015 **Ancient masonry castle Fragkokastello, Crete, Greece:**
Investigation of damage, proposal of structural reinforcement, proposals for new usage of the monument.
- Position Assistant Researcher

Service as Reviewer

Journals

- Engineering Structures (since 2017), ISSN: 0141-0296, Publisher: Elsevier
- International Journal of Masonry Research and Innovation (since 2017), ISSN print: 2056-9459, Publisher: Inderscience
- *International Journal of Architectural Heritage* (since 2016), Print ISSN: 1558-3058 Online ISSN: 1558-3066, Publisher: Taylor & Francis
- *Composites Part B: Engineering* (since 2014), ISSN: 1359-8368, Publisher: Elsevier
- *Materials and Structures*, (since 2014), ISSN: 1359-5997 (Print), 1871-6873 (Online), Publisher: Springer

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January - 2018

- *International Journal of Physical Sciences*, (since 4/2012), ISSN: 1992-1950, Publisher: Academic Journals

Conferences

- *International Conference "Coordinating Engineering For Sustainability and Resilience"*, Jordan University of Science and Technology, Dead Seas – Jordan, 2017

- *10th HSTAM International Congress on Mechanics*, Chania, Crete, Greece, 2013

- *7th GRACM International Congress on Computational Mechanics*, Athens, Greece, 2011

Computer Skills

FEM Packages

Abaqus, Ansys, Feap, Comsol, Marc

Programming languages

Matlab, Fortran

General Software

AutoCAD, Latex, MS Windows, MS Office

Languages

Greek

Native

English

Excellent

German

B1 level

Spanish

B1