

Paraskevas Papanikos

Associate Professor (Engineering Mechanics)

Department of Product and Systems Design Engineering, University of the Aegean

Tel: +30-22810-97122, Fax: +30-22810-97009, Email: ppap(at)aegean.gr

RESEARCH AREAS

Finite element modelling of structures and processes, strength and fatigue of metals and composites, analytical and experimental fracture mechanics, mechanical behavior of nano-structures.

EDUCATION

- 1989 Diploma in Mechanical Engineering, National Technical University of Athens.
- 1992 M.A.Sc. in Applied Mechanics, Dept. of Mechanical Engineering, University of Toronto.
- 1997 Ph.D. in Applied Mechanics, Dept. of Mechanical Engineering, University of Toronto.

PROFESSIONAL EXPERIENCE

- 1999-2004 Research coordinator
Institute of Structures and Advanced Materials (ISTRAM), Patras, Greece
- 2004-2012 Assistant Professor
Dept. of Product and Systems Design Engineering, University of the Aegean
- 2012- Associate Professor
Dept. of Product and Systems Design Engineering, University of the Aegean

EDUCATIONAL EXPERIENCE

Teaching (University of the Aegean, 2004-)

Undergraduate courses: Engineering Mechanics (Statics & Mechanics of Materials), Physics for Engineers, Computational Product Analysis and Manufacturing, Analysis and Design of Mechanisms

Graduate courses: Mechanics and Materials in Design, Computational Design and Analysis of Structures

Supervision of Ph.D. theses

1. Analysis of deployable structures of complex curvature, E. Scourboutis (since 3/2010).
2. Design of a service robotic system, D. Ioannou (since 5/2010).
3. Materials and technologies for sustainable product design in Greece, Ch. Fountoulaki (since 7/2014).
4. The contribution of Greek legislation in the development of wind power plants in south Aegean using fuzzy logic, K. Ntoufexis (since 12/2014).
5. Integrated methodology for the analysis and repair of cracked aircraft elements using a parametric CAD/CAE system, K. Bailas (since 6/2016).

Participation in Ph.D. supervising committees

1. Investigation of the effect of non-perfect interfaces on the overall mechanical and thermal behavior of nano-composites, N. Karalis, N.T.U.A., **completed 3/2015**.
2. An Approach to identify the appropriate design requirements and specifications to define the target percept of an in-car interface: Case of non-visual senses, I. Malliaros, EDAM MIT-Portugal, **completed 4/2015**.
3. Mechanical behaviour of elastic solids with finite strains and increasing mass, E. Gkouti, N.T.U.A., since 6/2012.
4. Three-dimensional modeling of human foot and finite element analysis of the foot/shoe interaction during walking, Z. Koutkalaki, University of the Aegean, since 12/2012.
5. Evaluation of mechanical comfort of shoes using three-dimensional finite element modeling, P. Papagiannis, University of the Aegean, since 5/2013.

6. Development of models to model the structural integrity of existing structures, N. Mitsopoulou, N.T.U.A., since 2/2015.
7. Theoretical and experimental investigation of the mechanical behavior of FRP-reinforced concrete structural elements, L. Konstantiou, N.T.U.A., since 2/2015.
8. Development of models for the analysis of the mechanical behavior of masonry constructions, V. Tsitsos, N.T.U.A., since 12/2015.

Participation in Ph.D. examination committees

1. Analysis of the mechanical behaviour of concrete structural elements reinforced with FRP bars, V. Karatzaferis, N.T.U.A., 1/2010.
2. Computational prediction of mechanical behavior and failure of nano-structures, S. Georgatzinos, University of Patras, 9/2010.
3. Development of methodologies for the non-linear analysis of large structures, S. Belesis, University of Patras, 11/2010.
4. Development of fuzzy vector quantization methods for the efficient compression of digital image, D. Tsolakis, University of the Aegean, 5/2012.
5. The unified method of two-phase potentials in studying the interaction of singularities and cracked bi-materials interfaces, G. Mavroyiannis, N.T.U.A., 3/2013.
6. Fatigue crack growth prediction under mode I-loading in aluminium alloy friction stir weld, A. Tzamtzis, University of Thessaly, 3/2015.
7. Multi-scale numerical methodology for the parametric estimation of the mechanical properties of carbon nanotubes reinforced polymers and composites, A. Chanteli, University of Patras, 7/2016.

Supervision of M.Sc. theses

1. Shape optimization of structural elements using Pro/Mechanica, M. Manousaridou, 5/2006.
2. Mechanical behavior of composites reinforced with carbon nanotubes, D. Nikolopoulos, 6/2007.
3. Analysis and design of a composite industrial floor tile, P. Loukopoulou, 10/2008.
4. Study of systems measuring foot pressure during walking, D. Iatridis, 12/2008.
5. Performance evaluation of photovoltaic system with sun tracking, Th. Kokkalis, 2/2009.
6. F.E. study of the mechanical behavior of multiwall carbon nanotubes, F. Efthimiou, 6/2009.
7. Self-healing polymeric materials: Evaluation of mechanical properties and strength using the finite element method, I. Drillias, 6/2009.
8. Design of a portable audio player, M. Kotsopoulou, 9/2009.
9. Design, analysis and manufacturing of moulds for a portable audio player, D. Stassinopoulos, 9/2009.
10. Analysis and design of metallic and composite patches to cracked curved aluminium plates: Application to airframe structural elements, T. Paschos, 5/2010.
11. Comparative study of shape optimization between two commercial finite element programs, K. Bailas, 6/2010.
12. Study of the energy efficiency of passive solar systems to improve thermal comfort in buildings, E. Chiliarchaki, 6/2010.
13. Shape optimization of metal and composite sheets to reduce stress concentration, M. Kozanidi, 9/2010.
14. Energy autonomy of homes in the Aegean islands, K. Sarakinis, 6/2011.
15. The development of city characteristics and the evolution of Syros as urban and industrial centre, M. Livadara, 10/2011.
16. Educational robotics in secondary education, A. Vardiabasis, 6/2013.
17. Energy control and building inspection: Suggestions for energy savings, S. Tzousdanis, 7/2013.
18. Textile product design for the detection and monitoring of persons with Alzheimer's disease, Aim. Petsava, 10/2014.
19. Design of a warm air control system adjusted on radiators, S. Tsiblakou, 10/2014.
20. Topology and geometry optimization of a roof truss load-bearing structure, D. Diakodimitriou, 3/2015.
21. Analysis of wooden structural elements, G. Kapellos, 6/2015.

22. Study and design of alternative front suspension systems for motorcycle, N. Politopoulos, 10/2016.
23. Wind energy and construction of wind turbine: construction materials study, F. Tsantilas, 1/2017.
24. Design of cement lighting system, E. Goniadou, 3/2017.
25. External car design and determination of aerodynamic loads in Ansys, Th. Arzoglou, 6/2017.

Supervision of Diploma theses

1. Analysis of dental implants using the finite element method, M. Doussia, 6/2007.
2. Development of a biomechanical model to evaluate the torque in a wheelchair, I. Malliaros, 10/2007.
3. Shape optimization of beams with uniformly spaced holes, P. Belitsou, 11/2008.
4. Design of ephemeral and reconfigurable structure to serve cultural activities in the urban environment, E. Papandreou, 5/2009.
5. Design of a scaffold system for a sidewalk with regards to accessibility and safety of pedestrians, M. Klironomos, 10/2009.
6. Analysis and design of planar mechanisms using Pro/Engineer, E. Matthaïou, 10/2009.
7. Optimization of metallic and composite patches, A. Koutroumanou, 1/2010.
8. Study of self-healing materials: modelling of laminated composites containing hollow fibres, K. Sifaki, 6/2010.
9. Study and analysis of tensegrity structures, E. Andritsou, 6/2010.
10. Optimization of structures: Topology optimization of some basic structural elements of aircraft, P. Christodoulou, 6/2010.
11. Study of the evolution of aircraft design: Materials and design methodologies, V. Grimba, 6/2010.
12. Optimization of reinforced composite structural elements, E. Iordanidou 7/2010.
13. Study of mechanical joints in small wooden structures, E. Chatzichronoglou, 2/2011.
14. Use of composite materials in product design: a study of their specifications and their mechanical behaviour when used in manufacturing sporting goods, A. Panayiotou, 2/2011.
15. Study of the specifications for the proper design of a moulded polymer product, G. Gabriel, 7/2011.
16. Analysis and design of structural health monitoring systems of aircraft, D. Gotsis, 10/2011.
17. Analysis and optimization of joints in small wooden structures, M. Kiara, 10/2011.
18. Fabric as material for industrial design, E. Danezi, 2/2012.
19. Shape memory materials: Study of actuators made of smart magnetic materials, S. Arkoudaki, 6/2012.
20. Shape memory materials and their applications, T. Kottidi, 6/2012.
21. Design, analysis and simulation of patches in composite aircraft structures, Ch. Tsalkakis, 6/2012.
22. Study of the mechanical behaviour of honeycomb panels for use in furniture, H. Chasapopoulou, 9/2012.
23. Building with natural materials: Study of the rammed earth process, A. Kaklidi, 10/2012.
24. Energy and carbon footprint in relation to food choices, D. Papadopoulou, 10/2012.
25. Textile history, evolution and technological applications: Study on composite nonwovens, S. Papaioannou, 10/2012.
26. Modelling the mechanical behaviour of carabiners for use in rock climbing, K. Kounadis, 10/2012.
27. Study of auxetic materials: analysis of mechanical joints of auxetic metal foams and auxetic composite laminates, V. Katranidis, 2/2013.
28. Acoustics of small rooms: application in small recording studio, I. Psillas, 2/2013.
29. Haptic interfaces using smart materials: study of shape memory alloy actuators, D. Vasilopoulou, 7/2013.
30. Use of smart materials in textiles, Aik. Papadomanolaki, 10/2013.
31. Study of lighting design and evaluation of lighting system in passenger aircraft cabin with respect passenger comfort, A. Katseni, 10/2013.

32. Study of surfboard design guidelines and construction of a functional prototype, M. Kalozoumi, 10/2013.
33. Study of autonomous photovoltaic systems, A. Rapti, 2/2014.
34. Design and optimization of a component for the elongation of the rear drive shaft of a four-wheeled vehicle, K. Ntoufexis, 2/2014.
35. Use of bio-composites in industry, Ch. Diamantidou, 2/2014.
36. Study and analysis of the basic structure of a snowboard, A. Ioannidis, 2/2014.
37. Study of technology and materials for food and beverage packaging, E. Vertzah-Vresah, 7/2014.
38. Study of the mechanical behaviour of micro-trusses, K. Siamos, 10/2014.
39. Study and analysis of a windsurf board, E. Mponi, 10/2014.
40. Study and analysis of the embodied energy of traditional and ecological materials used in residential buildings, G. Giota, 3/2015.
41. Fatigue strength of a reinforced steel ship hull, G. Arakas, 3/2015
42. Study and analysis of a product exhibition stand made of corrugated board, E. Kouzeli, 3/2015.
43. Analysis of dovetail joints in a aeroengine compressor disc, I. Syrmis, 3/2015.
44. E-posters in academic/scientific conferences – guidelines, comparative study and new suggestions, M. Pissaridi, 6/2015.
45. Study and analysis of modular scaffolding, P. Kotronis, 7/2015.
46. Detailed design of multipurpose furniture for children from 0 to 36 months old, B. Poulaki, 7/2015.
47. Study of the application of Product Service Systems (PSS) in the manufacturing and construction sectors, A. Xantes, 10/2015.
48. Study and analysis of a Bamboo bicycle frame, A. Mavropoulou, 10/2015.
49. Study of chocolate and its mechanical properties, A. Mountricha, 10/2015.
50. Study and analysis of the mechanical behavior of hybrid glass fiber reinforced composite (GLARE) using the finite element method, D. Loizou, 10/2015.
51. The revival of Sparto: A research on the potential of a forgotten natural fiber in today's world, I. Stefanidou-Loi, 10/2015.
52. Study and analysis of a car wheel, A. Perakis, 3/2016.
53. Design and construction of an exchanger's support and cover system, G. Anastasopoulou, 3/2016.
54. Lighting control and management System: An automated device design for professional spaces, F. Larozas, 3/2016.
55. Case study of the interior design of a three-room apartment system aiming for the support of best quality of living, A. Kalpyri, 3/2016.
56. Design of space for preparation and cooking of food, M. Roulis, 3/2016.
57. Interior design and exterior re-design of small scale, secondary education tuition centre, κλιμακας, D. Seleridis, 3/2016.
58. Design, construction and evaluation of clay containing recycled glass, M. Xsynou, 6/2016.
59. Study and analysis of cracked structural components using Creo, G. Klossas, 7/2016.
60. Design of automatic storage and dosing system for Greek coffee and sugar, A. Dimopoulos, 9/2016.
61. Study and design of staircase for small interior spaces, L. Kontou, 9,2016.
62. Design of distillation apparatus for home distillation of tsipouro, with useful detachable parts, G. Armaos, 10/2016.
63. Design of trolley for city street cleaners, Y. Kouka, 10/2016.
64. Study of construction, mechanical behavior and applications of wool felt, A. Polizoidou,10/2016.
65. Design of smart mirror for use in the bathroom, A. Merkouri, 10/2016.
66. Study and design of acoustic guitar made of composite materials, S. Akrivos, 10/2016.
67. Design of an indoors portable bicycle stand, L. Vasalakis, 2/2017.
68. Study, design and construction of prototypes of an electric outboard motor and an electric foldable bicycle, using the same motor, for use on 25 to 40 ft length sailboats, V. Siourounis, 3/2017.
69. Study of new material for bouzouki soundboard, K. Babaris, 3/2017.
70. Design of multifunctional furniture for pharmacies, D. Louizos, 3/2017.

71. Design of polymorphic furniture for children from birth to adolescence, S. Giolma, 3/2017.
72. Design and implementation of educational robotics workshop, in accordance with the principles of STEM education, for students between the ages of 9-12, S. Georgopoulou, 3/2017.
73. Design and construction of electric musical instrument, K. Vasilakis, 3/2017.
74. Pedestrian and waiting shelter design for the urban site of Athens, M. Romosiou, 3/2017.
75. Study of factors influencing passenger comfort in aircrafts, A. Basileiadi, 7/2017.
76. Study of sustainable materials from agricultural waste: Mycofoam and its applications, M. Katsimitsi, 7/2017.

Participation in M.Sc. and Diploma theses committees

Participation in 300 committees of undergraduate and postgraduate dissertations in the University of the Aegean.

ADMINISTRATIVE EXPERIENCE

- Participation in the following departmental committees: Student Affairs, Internships, Curriculum, Dissertations.
- Member of the Senate of the University of the Aegean (2006-2007, 2011-2012).
- Deputy Chairman (2006 –2009, 2011-2014) and member (2014-2017) of the Technical Board of the University of the Aegean.
- Departmental Coordinator of the Internship Program (2007-2015).
- Deputy Chairman of the Department of Product and Systems Engineering, University of the Aegean (2016-2017).
- Participation in 21 electoral bodies and 3 recommendatory committees for electing faculty members.
- External evaluator for 4 faculty members elections.

AWARDS - SCHOLARSHIPS

- University of Toronto Scholarship, 1991-1992 (for M.A.Sc.).
- Natural Sciences and Engineering Research Council of Canada (NSERC) Scholarship, 1992-1994 (for Ph.D.).
- University of Toronto Scholarship, 1994-1995 (for Ph.D.).

RESEARCH PROJECTS

Dept. of Mechanical Engineering, University of Toronto (1990-1997)

1. Design and Analysis of Dovetail Joints in Aeroengine Discs
2. Fatigue Behaviour of Aeroengine Compressor Assemblies
3. Three-Dimensional Finite Element Analysis of Cold Hole Expansion for Aerospace Applications
4. Fatigue Fracture Behaviour of Interacting Holes
5. Effect of Residual Stresses upon the Fatigue Behaviour of Airframe Alloys
6. Finite Element Analysis of the Shot Peening Process
7. Biomechanical Analysis of Dental and Orthopedic Implants
8. FEM in Design of Recreational Equipment

Institute of Structures and Advanced Materials (ISTRAM), Patras, Greece (1999-2006)

9. Efficient Design and Verification of Composite Structures (EDAVCOS) - Funding agent: European Union(BRITE/EURAM) - Coordinator: SAAB - Project duration: 1/2/98-31/1/01
10. Integrated Design Environment for Simulation and Numerical Analysis of Production Processes (D-SIGN) - Funding agent: European Union(BRITE/EURAM) - Coordinator: ESI - Project duration: 1/8/98-30/11/01
11. Services for Collaborative SMEs Aeronautical Technical Research (SCRATCH) - Funding agent: European Union - Coordinator: EuroInter - Project duration: 1/2/99-30/9/00

12. Bolted Joints in Composite Aircraft Structures (BOJCAS) - Funding agent: European Union(GROWTH) - Coordinator: Un. Limerick - Project duration: 1/2/00-31/5/03
13. Technology Application to the Near-Term Business Goals and Objectives of the Aerospace Industry (TANGO) - Funding agent: European Union(GROWTH) - Coordinator: AIRBUS - Project duration: 1/4/00-31/3/05
14. Services for Collaborative SMEs Aeronautical Technical Research II (SCRATCH II) - Funding agent: European Union - Coordinator: EuroInter - Project duration: 1/10/00-31/3/01
15. Advanced Design Concepts and Maintenance by Integrated Risk Evaluation for Aerostructures (ADMIRE) - Funding agent: European Union(GROWTH) - Coordinator: ALENIA - Project duration: 1/2/01-31/7/04
16. Improve and Assess Repair Capability of Aircraft Structures (IARCAS) - Funding agent: European Union(GROWTH) - Coordinator: AIRBUS - Project duration: 1/7/01-31/12/05
17. Investigation on Damage Tolerance Behavior of Aluminium Alloys (IDA) - Funding agent: European Union(GROWTH) - Coordinator: AIRBUS - Project duration: 1/1/02-31/12/04
18. Services for Collaborative SMEs Aerospace Technical Research 3 (SCRATCH 3) - Funding agent: European Union - Coordinator: EuroInter - Project duration: 1/5/02-29/2/04
19. Development of Innovative and Advanced Laminates for Future Aircraft Structure (DIALFAST) - Funding agent: European Union(STREP) - Coordinator: AIRBUS - Project duration: 1/1/04-31/12/06

National Technical University of Athens (2004-2006)

20. Deformation measurement in FRP reinforced concrete structures using geodetic methods and fibre sensors, Programme Pythagoras, EPEAEK, 2004-2006.

University of the Aegean (2006-)

21. Structural health monitoring of glass-reinforced composites using embedded CNT fibers - Funding agent: Latsis Foundation - Coordinator: NTUA - Project duration: 1/1/10-31/12/10.
22. Experimental and theoretical investigation of mechanical properties degradation of the aeronautical Aluminum alloy 2024 due to corrosion, Archimedes III Programme, 2012-2015.
23. Development of cost-effective and accurate computer-aided design and engineering (CAD/CAE) tools for the determination and optimization of footwear comfort parameters (OPT-SHOES), ARISTEIA Programme, 2012-2015.

Reviewer

Reviewer for: Advances in Computational Design, Aerospace Science and Technology, Carbon, Ciência & Tecnologia dos Materiais, Composites part B: Engineering, Composite Structures, Computational Materials Science, Fatigue and Fracture of Engineering Materials and Structures, International Journal of Fatigue, International Journal of Solids and Structures, International Journal of Structural Integrity, Journal of Composite Materials, Journal of Materials Engineering and Performance, Journal of Materials Science, Journal of Physics and Chemistry of Solids, Materials Science and Engineering A, Mechanics of Advanced Materials and Structures, Mechanics of Materials, Physica Status Solidi B: Basic Solid State Physics.

PUBLICATIONS

Theses

- T1. P. Papanikos, On the structural integrity of dovetail joints in aeroengine discs, M.A.Sc. Thesis, University of Toronto, 1992.
- T2. P. Papanikos, Mechanics of mixed mode fatigue behaviour of cold worked adjacent holes, Ph.D. Thesis, University of Toronto, 1997.

Chapters in books

- B1. Sp. Pantelakis and P. Papanikos, in Problems of fracture mechanics and fatigue: A solution guide, edited by E.E. Gdoutos, C.A. Rodopoulos and J.R. Yates, Kluwer Academic Publishers, 2003.

- B2. K.I. Tserpes, P. Papanikos, G.N. Labeas and Sp. Pantelakis, Multi-scale modeling of tensile behavior of carbon nanotube-reinforced composites, in *Particle and Continuum Aspects of Mesomechanics* (eds G. C. Sih, M. Naït-Abdelaziz and T. Vu-Khanh), ISTE, London, UK. doi: 10.1002/9780470610794.ch33, 2007.

Monographs

- M1. K.I. Tserpes and P. Papanikos, Finite element modeling of the tensile behavior of carbon nanotubes, graphene and their composites in *Modeling of carbon nanotubes, graphene and their composites*, edited by K.I. Tserpes and N. Silvestre, Springer Series in Materials Science 188, pp. 303-329, 2014.

Journals

- J1. P. Papanikos and S.A. Meguid, Theoretical and experimental studies of fretting-initiated fatigue failure of aeroengine compressor discs, *Fatigue and Fracture of Engineering Materials and Structures*, 17(5), 539-550, 1994.
- J2. S.A. Meguid, M.H. Refaat and P. Papanikos, Theoretical and experimental studies of the structural integrity of dovetail joints in aeroengine discs, *Journal of Materials Processing Technology*, 56, 668-677 1996.
- J3. P. Papanikos, S.A. Meguid and Z. Stjepanovic, Three-dimensional nonlinear finite element analysis of dovetail joints in aeroengine discs, *Finite Elements in Analysis and Design*, 29(3-4), 173-186, 1998.
- J4. P. Papanikos and S.A. Meguid, Three-dimensional finite element analysis of cold expansion of adjacent holes, *International Journal of Mechanical Sciences*, 40(10), 1019-1028, 1998.
- J5. X.D. Wang, S.A. Meguid and P. Papanikos, Analysis of curved cracks emanating from adjacent holes, *Engineering Fracture Mechanics*, 64, 337-355, 1999.
- J6. P. Papanikos and S.A. Meguid, Elasto-plastic finite element analysis of cold expansion of adjacent fastener holes, *Journal of Materials Processing Technology*, 93, 424-428, 1999.
- J7. Sp.G. Pantelakis, Em.Ch. Kyriakakis and P. Papanikos, Non-destructive fatigue damage characterization of laminated thermosetting fibrous composites, *Fatigue and Fracture of Engineering Materials and Structures*, 24(10), 651-662, 2001.
- J8. K.I. Tserpes, P. Papanikos and Th. Kermanidis, A three-dimensional progressive damage model for bolted joints in composite laminates subjected to tensile loading, *Fatigue and Fracture of Engineering Materials and Structures*, 24(10), 663-676, 2001.
- J9. K.I. Tserpes, G. Labeas, P. Papanikos and Th. Kermanidis, Strength prediction of bolted joints in graphite/epoxy composite laminates, *Composites Part B: Engineering*, 33(7), 521-529, 2002.
- J10. P. Papanikos, K.I. Tserpes and Sp.G. Pantelakis, Modelling of fatigue damage progression and life of CFRP laminates, *Fatigue and Fracture of Engineering Materials and Structures*, 26, 37-47, 2003.
- J11. S.A. Tsirkas, P. Papanikos, Th. Kermanidis, Numerical simulation of the laser welding process in butt-joint specimens, *Journal of Materials Processing Technology*, 134, 59-69, 2003.
- J12. S.A. Tsirkas, P. Papanikos, K. Pericleous, N. Strusevich, F. Boitout, J.M. Bergheau, Evaluation of distortions of laser welded shipbuilding parts using local-global finite element approach, *Science and Technology of Welding and Joining*, 8(2), 79-88, 2003.
- J13. K.I. Tserpes, P. Papanikos, G. Labeas, Sp. Pantelakis, Fatigue damage accumulation and residual strength assessment of CFRP laminates, *Composite Structures*, 63(2), 219-230, 2004.
- J14. P.V. Petroyiannis, Al.Th. Kermanidis, P. Papanikos, Sp.G. Pantelakis, Corrosion-induced hydrogen embrittlement of 2024 and 6013 aluminium alloys, *Theoretical and Applied Fracture Mechanics*, 41(1-3), 173-183, 2004.
- J15. M.A. Kattis, P. Papanikos, E. Providas, Thermal Green's functions in plane anisotropic bimetals, *Acta Mechanica*, 173 (1-4), 65-76, 2004.
- J16. P. Papanikos, K.I. Tserpes, G. Labeas, Sp. Pantelakis, Progressive damage modelling of bonded composite repairs, *Theoretical and Applied Fracture Mechanics*, 43(2), 189-198, 2005.
- J17. K.I. Tserpes and P. Papanikos, Finite element modelling of single-walled carbon nanotubes, *Composites Part B: Engineering*, 36, 468-477, 2005.

- J18. K.I. Tserpes, P. Papanikos, S.A. Tsirkas, A progressive fracture model for carbon nanotubes, *Composites Part B: Engineering*, 37, 662-669, 2006.
- J19. K.I. Tserpes and P. Papanikos, The effect of Stone-Wales defect on the tensile behavior and fracture of single-walled carbon nanotubes, *Composite Structures*, 79(4), 581-589, 2007.
- J20. P. Papanikos, K.I. Tserpes and Sp. Pantelakis, Initiation and progression of composite patch debonding in adhesively repaired cracked metallic sheets, *Composite Structures*, 81(2), 303-311, 2007.
- J21. K.I. Tserpes, P. Papanikos, G. Labeas and Sp. Pantelakis, Multi-scale modeling of tensile behaviour of carbon nanotube reinforced composites, *Theoretical and Applied Fracture Mechanics*, 49(1), 51-60, 2008.
- J22. P. Papanikos, D.D. Nikolopoulos and K.I. Tserpes, Equivalent beams for carbon nanotubes, *Computational Materials Science*, 43(2), 345-352, 2008.
- J23. A.D. Alexopoulos and P. Papanikos, Experimental and theoretical studies of corrosion-induced mechanical properties degradation of aircraft 2024 aluminium alloy, *Materials Science and Engineering A*, 498, 248-257, 2008.
- J24. K.I. Tserpes and P. Papanikos, Continuum modeling of carbon nanotube-based superstructures, *Composite Structures*, 91, 131-137, 2009.
- J25. Z. Koutkalaki, P. Papagiannis, P. Azariadis, P. Papanikos, S. Kyratzi, D. Zissis, D. Lekkas and E. Xidias, Towards a foot bio-model for performing finite element analysis for footwear design optimization using a cloud infrastructure, *Computer-Aided Design and Applications*, 12(5), 507-518, 2015.
- J26. P. Papagiannis, Z. Koutkalaki, P. Azariadis and P. Papanikos, Definition and evaluation of plantar mechanical comfort for the support of footwear design, *Computer-Aided Design and Applications*, 13(2), 162-172, 2016.
- J27. D. Zissis, D. Lekkas, P. Azariadis, P. Papanikos and E. Xidias, Collaborative CAD/CAE as a cloud service, *International Journal of Systems Science: Operations & Logistics*, DOI: 10.1080/23302674.2016.1186237, 2017.

Conference proceedings

- C1. S.A. Meguid, P. Papanikos and M.H. Refaat, Finite element analysis of dovetail joints in aeroengine discs using interface elements, *Proceedings of the International Conference on Computational Methods in Engineering*, Singapore, November 1992.
- C2. P. Papanikos and S.A. Meguid, Fatigue failure of dovetail joints in aeroengine discs, *Proceedings of Fatigue '93*, pp. 465-470, Montreal, Canada, May 1993.
- C3. S.A. Meguid, M.H. Refaat and P. Papanikos, Theoretical and experimental studies of structural integrity of dovetail joints in aeroengine discs, *Proceedings of the International Conference on Advances in Materials and Processing Technologies*, pp. 1539-1547, Dublin, Ireland, August 1993.
- C4. S.A. Meguid and P. Papanikos, Evaluation of the structural integrity of aeroengine compressor discs using fracture mechanics, *Proceedings of the 10th International Conference on Experimental Mechanics*, pp. 443-448, Lisbon, Portugal, July 1994.
- C5. P. Papanikos and S.A. Meguid, Fatigue crack growth behaviour of interacting holes in airframe alloys, *Proceedings of Mechanics in Design*, Canadian Society for Mechanical Engineering Forum, pp. 731-739, Toronto, Canada, May 1996.
- C6. S.A. Meguid, P. Papanikos, Z. Stjepanovic and J. Najjar, Three-dimensional finite element analysis of an aeroengine compressor disc assembly, *Proceedings of the 2nd International Conference on the Application of Numerical Methods in Engineering*, pp. 62-68, Serdang, Malaysia, June 1997.
- C7. P. Papanikos and S.A. Meguid, Elasto-plastic finite element analysis of cold expansion of adjacent fastener holes, *Proceedings of the 3rd International Conference on Advances in Materials and Processing Technologies (AMPT'97)*, pp. 799-804, Guimaraes, Portugal, July 1997.
- C8. S.A. Meguid and P. Papanikos, Mechanics of the cold hole expansion of aerospace components (Invited Keynote Lecture), *International Conference on Experimental Mechanics*, Porto, Portugal, March 1998.
- C9. Sp. Pantelakis, Em.Ch. Kyriakakis and P. Papanikos, Fatigue damage of laminated fibrous composites, *Proceedings of MesoMechanics 2000*, pp. 1057-1066, Xi'an, China, June 2000.

- C10. Al.Th. Kermanidis, P. Papanikos and Sp.G. Pantelakis, Mesodamage of 2024-T3 aluminum alloy specimen due to corrosion-induced localized hydrogen embrittlement, CD-ROM Proceedings of the Tenth International Conference on Fracture, Hawaii, December 2001.
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Citations

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