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Μηχανολόγος Αεροναυπηγός Μηχανικός

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ΕΚΠΑΙΔΕΥΣΗ

**Τμήμα Μηχανολόγων και Αεροναυπηγών Μηχανικών,
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2001 - 2009

Τομέας Ειδίκευσης: Εφαρμοσμένης Μηχανικής

Βαθμός διπλώματος: **7.27/10**

Διπλωματική Εργασία: *“Διάδοση σημάτων ακουστικής εκπομπής σε κατασκευές: Αριθμητική προσομοίωση”*.

**Τμήμα Μηχανικών Επιστήμης των Υλικών, Πανεπιστήμιο
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2009 - 2018

PhD στη Βιοϊατρική Τεχνολογία με τίτλο διδακτορικής διατριβής:
“Μοντελοποίηση της ροής αίματος σε αρτηρίες με κινούμενα τοιχώματα”

ΕΡΓΑΣΙΑΚΗ ΕΜΠΕΙΡΙΑ

[Foundation for Research and Technology – Hellas] - Ερευνητής
1/8/2009-31/3/2010 & 1/2/2012-30/4/2012

ARTreat – Multi-level patient-specific artery and atherogenesis model for outcome prediction, decision support treatment, and virtual hand-on training (FP7-ICT Project ID: 224297).

[Foundation for Research and Technology – Hellas] - Ερευνητής
1/7/2010-31/12/2010 & 1/4/2011-30/6/2011

CHRONIOUS- An Open, Ubiquitous and Adaptive Chronic Disease Management Platform for COPD and Renal Insufficiency (FP7-ICT Project ID: 216461)

[University of Ioannina] - Ερευνητής

1/12/2012-31/10/2014

“THESSALY- MAINLAND GREECE AND EPIRUS-2007-2013” of the National Strategic Reference Framework (NSRF 2007-2013) entitled: «Development of a Software based on Image Processing and Wall Shear Stress Calculation for the optimal Assessment and the Invasive Treatment of Coronary Artery Stenosis (MIS Code: 348133)»

[University of Ioannina] - Ερευνητής

1/11/2014-30/11/2015

«Ε.Π. ΨΗΦΙΑΚΗ ΣΥΓΚΛΙΣΗ ΕΣΠΑ 2007-2013» entitled:

«Ολοκληρωμένες Πληροφοριακές Υποδομές και Υπηρεσίες για τη Διαχείριση και Αξιολόγηση της Τεχνολογίας Υγείας»

[Foundation for Research and Technology – Hellas]– Ερευνητής
1/9/2015-30/9/2015

HEARTEN - A co-operative mHealth environment targeting adherence and management of patients suffering from Heart Failure, (H2020-EU.3.1.4., Project ID: 643694)

[Foundation for Research and Technology – Hellas]– Ερευνητής
1/1/2016-31/3/2018

SMARTool - Simulation Modeling of coronary ARTery disease: a tool for clinical decision support (Project ID: 689068).

Foundation for Research and Technology – Hellas]–Ανώτερος Ερευνητής

1/5/2018-30/6/2019

SMARTool - Simulation Modeling of coronary ARtery disease: a tool for clinical decision support (Project ID: 689068).

[University of Ioannina] – Ανώτερος Ερευνητής

1/4/2019-30/6/2020

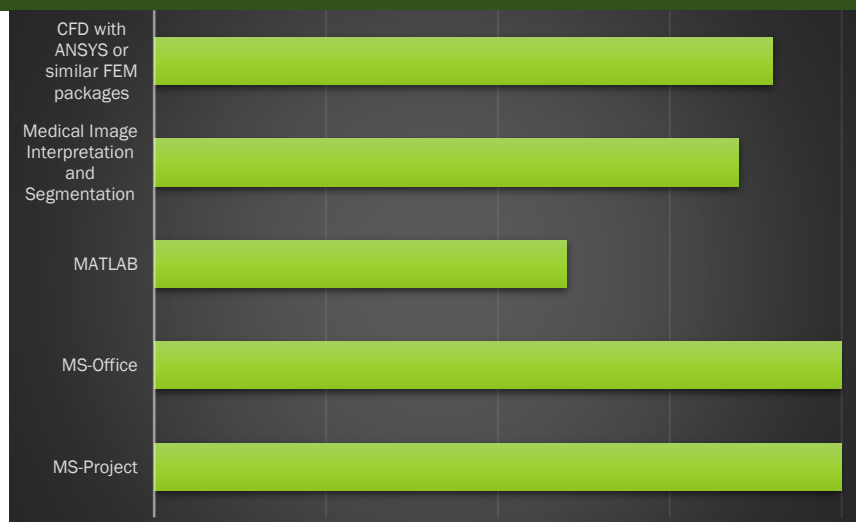
TAXINOMISIS – A multidisciplinary approach for the stratification of patients with carotid artery disease (Project ID: 755320).

[Ionian University] – Ανώτερος Ερευνητής

1/4/2020-4/6/2021

Αξιολόγηση της στεφανιαίας αθηροσκλήρωσης: μια νέα, ολοκληρωμένη, ανατομολειτουργική, μορφολογική και βιομηχανική προσέγγιση, Δια Βίου Μάθηση ΕΣΠΑ 2014-2020, (Κ.Ε. 80471)

ΙΚΑΝΟΤΗΤΕΣ



Τεχνικό Επιμελητήριο Ελλάδος (Τ.Ε.Ε.): Μέλος από τον Ιούνιο του 2009

Ξένες Γλώσσες:

1. **Αγγλικά:** Άριστη γνώση (Cambridge Proficiency Certificate)
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Στατιστικά Scopus: 53 documents, h-index=12

ΔΗΜΟΣΙΕΥΣΕΙΣ ΣΕ ΔΙΕΘΝΗ ΠΕΡΙΟΔΙΚΑ ΜΕ ΣΥΣΤΗΜΑ ΚΡΙΤΩΝ

1. **Siogkas, K., Panagiotis;** Sakellarios, I., Antonis; Exarchos, P., Themis; Stefanou, Kostas; Fotiadis, I., Dimitrios; Naka, Katerina; Michalis, Lampros; Filipovic, Nenad; Parodi, Oberdan, **Blood Flow in Arterial Segments: Rigid vs. Deformable Walls Simulations**, *Journal of the Serbian Society for Computational Mechanics*, Vol. 5, No. 1, pp. 69-77, 2011.
2. **P.Siogkas,** A.I.Sakellarios, T.Exarchos, L.Athanasiou, E.Karvounis, K.Stefanou, E.Fotiou, D.I.Fotiadis, K.K.Naka, L.K.Michalis, N.Filipovic, O.Parodi, **"Multi-level patient-specific artery and atherogenesis models"**, *IEEE Transactions on Biomedical Engineering, Special Issue Multi-Scale Modelling and Analysis for Computational Biology and Medicine*, 58 (12 PART 2), 5985488, pp. 3464-3468, 2011
3. **Panagiotis Siogkas,** Michail Papafaklis, Antonis Sakellarios, Kostas Stefanou, Christos Bourantas, Lambros Athanasiou, Themis P. Exarchos, Katerina K. Naka, Lampros Michalis, Oberdan Parodi, and Dimitrios I. Fotiadis, **"Patient-specific Simulation of Coronary Artery Pressure Measurements: An In Vivo Three-dimensional Validation Study in Humans"**, *BioMed Research International*, 01/2015; vol. 2015, pp. 1-11
4. **Panagiotis K. Siogkas,** Kostas A. Stefanou, Lambros S. Athanasiou, Michail I. Papafaklis, Lampros K. Michalis, and Dimitrios I. Fotiadis, **"Art Care: A Multi-Modality Coronary 3D Reconstruction and Hemodynamic Status Assessment Software"**, *Technology and Health Care*, 2017 Oct 13. doi: 10.3233/THC-170881
5. **Panagiotis K. Siogkas,** Michail I. Papafaklis, Lampros Lakkas, Themis P. Exarchos, Dimitri Karpaliotis, Ziad A. Ali, Gualtiero Pelosi, Oberdan Parodi, Christos S. Katsouras, Dimitrios I. Fotiadis and Lampros K. Michalis, **"Virtual Functional Assessment of Coronary Stenoses Using Intravascular Ultrasound Imaging: A Proof-of-Concept Pilot Study"**, *Heart Lung and Circulation*, 2018 Mar 2. pii: S1443-9506(18)30074-X. doi: 10.1016/j.hlc.2018.02.011
6. **Panagiotis K. Siogkas,** Constantinos D. Anagnostopoulos, Riccardo Liga, Themis P. Exarchos, Antonis I. Sakellarios, George Rigas, Arthur J.H.A. Scholte, M.I. Papafaklis, Dimitra Loggitsi, Gualtiero Pelosi, Oberdan Parodi, Lampros K. Michalis, Juhani Knuuti, Danilo Neglia, Dimitrios I. Fotiadis, **"Noninvasive CT-based hemodynamic assessment of coronary lesions derived from fast computational analysis: a comparison against fractional flow reserve**, *European Radiology*, 2018 Oct 15. doi: 10.1007/s00330-018-5781-8

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8. A.I.Sakellarios, K.Stefanou, **P.Siogkas**, V.D.Tsakanikas, C.V.Bourantas, L.Athanasίου, T.Exarchis, E.Fotiou, K.Naka, M.I.Papafaklis, A.J.Patterson, V.El.Young, J.H.Gillard, L.K.Michalis, D.I.Fotiadis, “**Novel methodology for 3D reconstruction of carotid arteries and plaque characterization based upon magnetic resonance imaging carotid angiography data**”, *Magnetic Resonance Imaging Journal*, 30 (8), pp. 1068-1082, 2012
9. **P.K. Siogkas**, L. Lakkas, A.I. Sakellarios, George Rigas, S. Kyriakidis, K.A. Stefanou, C.D. Anagnostopoulos, S. Rocchiccioli, G. Pelosi, O. Parodi, D. Neglia, L.K. Michalis, and D.I. Fotiadis, “**SmartFFR: A new functional assessment index of coronary stenosis: comparison with invasive FFR data**”, *Heart, Lung and Circulation (submitted)*.
10. T.P. Exarchos, K.Stefanou, **P.Siogkas**, A.Sakelarios, D.I.Fotiadis, K.Naka, L.Michalis, Lampros, N.Filipovic, O.Parodi, “**ARTool: A Platform for the development of multi-level patient-specific artery and atherogenesis models**”, *Journal of Internet Research, Special Issue on Computational Bioengineering (accepted)*
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 22. Vassiliki I. Kigka; Antonis I. Sakellarios; Savvas Kyriakidis; George Rigas; Lambros Athanasiou; Panagiotis Siogkas; Panagiota Tsompou; Dimitra Loggitsi; Ronny Buechel; Gualtriero Pelosi; Pedro

A. Lemos; Lampros K. Michalis and Dimitrios I. Fotiadis, “**A three-dimensional quantification of calcified and non-calcified plaques in coronary arteries based on computed tomography coronary angiography images: comparison with expert's annotations and virtual histology intravascular ultrasound**”, *Computers in Biology and Medicine*

23. Antonis Sakellarios, Joao Correia, Savvas Kyriakidis, Elena Georga, Nikolaos Tachos, **Panagiotis Siogkas**, Francisco Sans, Paolo Stofella, Valiani Massimiliano, Alberto Clemente, Silvia Rocchiccioli, Gualtiero Pelosi, Nenad Filipovic & Dimitrios I. Fotiadis, “**A cloud-based platform for the non-invasive management of coronary artery disease**”, *Enterprise Information Systems*, DOI: 10.1080/17517575.2020.1746975, 2020.

ΔΗΜΟΣΙΕΥΣΕΙΣ ΣΕ ΠΡΑΚΤΙΚΑ ΣΥΝΕΔΡΙΩΝ ΜΕ ΣΥΣΤΗΜΑ ΚΡΙΤΩΝ

1. **Panagiotis K. Siogkas**, Antonis I. Sakellarios, Kostas A. Stefanou, Themis P. Exarchos, Lambros Athanasiou, Konstantinos G. Siogas, Lampros K. Michalis, Katerina K. Naka, Christos V. Bourantas, Catrin Bludszweit-Philipp and Dimitrios I. Fotiadis, **Exploring the Effect of Arterial Geometry in a Realistic 3D Coronary Arterial Model**, *10th International Workshop on Biomedical Engineering, October 2011, Kos, Greece.*
2. **P. K. Siogkas**, A. I. Sakellarios, K. A. Stefanou, V. D. Tsakanikas, T. P. Exarchos, L. K. Michalis, K. K. Naka, C. Bludszweit-Philipp and D. I. Fotiadis, **Quantification of the Effect of Percutaneous Coronary Angioplasty on a Stenosed Right Coronary Artery**, *10th IEEE International Conference on Information Technology and Applications in Biomedicine, November 2010, Corfu, Greece.*
3. **P. K. Siogkas**, A. I. Sakellarios, K. A. Stefanou, T. P. Exarchos, V. D. Tsakanikas, L. K. Michalis, K. K. Naka, M. I. Papafaklis, C. V. Bourantas and D. I. Fotiadis, **Blood flow in coronary arteries with deformable walls**, *9th HSTAM International Congress on mechanics, Limassol, Cyprus, 2010.*
4. Antonis I. Sakellarios, **Panagiotis K. Siogkas**, Vasilis D. Tsakanikas, Kostas A. Stefanou, Lampros K. Michalis, Dimitrios I. Fotiadis, **Simulation of the Effect of Tachycardia on Atherosclerotic Plaque Development Based on the LDL Transport in Coronary Arteries**, *CinC 2010, September 2010, Belfast, Ireland.*
5. Antonis I. Sakellarios, **Panagiotis K. Siogkas**, Vasilis D. Tsakanikas, Katerina K. Naka, Lampros K. Michalis, Dimitrios I. Fotiadis, **Computational model of atherosclerotic plaque**

formation in 3D coronary arterial tree of realistic geometry
ELEMBIO 2010, Ioannina, 4 - 6 June 2010

6. A.I.Sakellarios, T.Exarchos, **P.Siogkas**, K.Stefanou,, C.V.Bourantas, E.Fotiou, K.K.Naka, L.K.Michalis, D.Koutsouris, D.I.Fotiadis, "**Influence of arterial geometry and stenosis on LDL accumulation in arteries**", *7th GRACM International Congress on Computational Mechanics (in press)*
7. A. I. Sakellarios, **P. Siogkas**, T. P. Exarchos, K. Stefanou, C. V. Bourantas, K. K. Naka, D. I. Fotiadis, L. K. Michalis, **Computational Blood Flow Modeling Validation using MRI Carotid Angiography**, *32^o Πανελλήνιο Καρδιολογικό Συνέδριο, Οκτώβριος 2011, Θεσσαλονίκη, Ελλάδα.*
8. L. Athanasiou, C. Bourantas, **P. Siogkas**, A. Sakellarios, T. Exarchos, K. Naka, M. Papafakls, F. Prati, D. Fotiadis, **3D Reconstruction of Coronary Arteries Using Frequency Domain Optical Coherence Tomography Images and Biplane Angiography**, *34th Annual International IEEE EMBS Conference, August 28 - September 1, 2012, San Diego, California, USA.*
9. T. Exarchos, A. Sakellarios, **P. Siogkas**, D. Fotiadis, Z. Milosevic, D. Nikolic, N. Filipovic, P. Maraccini, F. Vozzi, O. Parodi, "**Patient Specific Multiscale Modelling for Plaque Formation and Progression**", *34th Annual International IEEE EMBS Conference, August 28 - September 1, 2012, San Diego, California, USA.*
10. Athanasiou, L.S. , Bourantas, C.V. , **Siogkas, P.K.** , Sakellarios, A.I. , Exarchos, T.P. , Naka, K.K. , Papafaklis, M.I. , Michalis, L.K. , Prati, F. , Fotiadis, D.I. "**3D reconstruction of coronary arteries using Frequency Domain Optical Coherence Tomography images and biplane angiography**", *Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS, 6346508, pp. 2647-2650, 2012*
11. Exarchos, T.P. , Sakellarios, A. , **Siogkas, P.K.** , Fotiadis, D.I. , Milosevic, Z. , Nikolic, D. , Filipovic, N. , Marraccini, P., Vozzi, F., Parodi, O., "**Patient specific multiscale modelling for plaque formation and progression**", *Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS, 6346568, pp. 2893-2896, 2012*
12. Athanasiou, L.S. , Bourantas, C.V. , Rigas, G.A. , Exarchos, T.P. , Sakellarios, A.I. , **Siogkas, P.K.** , Papafaklis, M.I. , Naka, K.K. , Michalis, L.K. , Prati, F. , Fotiadis, D.I. "**Fully automated calcium detection using optical coherence tomography**" *Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 6609779, pp. 1430-1433, 2013*
13. **Siogkas, P.K.** , Papafaklis, M.I. , Sakellarios, A.I. , Stefanou, K.A. , Bourantas, C.V., Athanasiou, L.M. , Bellos, C.V. , Exarchos, T.P. , Naka, K.K. , Michalis, L.K. , Parodi, O., Fotiadis, D.I., "**Computational assessment of the fractional flow reserve from intravascular ultrasound and coronary angiography data: A pilot study**", *Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 6610393, pp. 3885-3888, 2013*

14. Sakellarios, A.I. , **Siogkas, P.K** , Athanasiou, L.S., Exarchos, T.P., Papafaklis, M.I., Bourantas, C.V., Naka, K.K., Michalis, L.K., Filipovic, N., Parodi, O., Fotiadis, D.I., **“Three-dimensional modeling of oxidized-LDL accumulation and HDL mass transport in a coronary artery: A proof-of-concept study for predicting the region of atherosclerotic plaque development”**, *Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, 6610550, pp. 4513-4516, 2013
15. Sakellarios, A.I., **Siogkas, P.K.**, Athanasiou, L.S., Exarchos, T.P., Papafaklis, M.I., Bourantas, C.V., Naka, K.K., Iliopoulou, D. Michalis, L.K., Filipovic, N., Parodi, O., Fotiadis, D.I., **“Modeling atherosclerotic plaque growth: A case report based on a 3D geometry of left coronary arterial tree from computed tomography”**, 13th IEEE International Conference on BiInformatics and BioEngineering, IEEE BIBE 2013, 6701548, 2013
16. **Panagiotis Siogkas**, Antonis Sakellarios, Michail Papafaklis, Kostas Stefanou, Lambros Athanasiou, Themis P. Exarchos, Katerina Naka, Lampros Michalis, Dimitrios I. Fotiadis, **“Assessing the Hemodynamic Influence between Multiple Lesions in a Realistic Right Coronary Artery Segment: a Computational Study”**, *Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS, 2014.*
17. Lambros Athanasiou, Georgios Rigas, Antonis Sakellarios, Themis P. Exarchos, **Panagiotis Siogkas**, Lampros Michalis, Oberdan Parodi, Federico Vozzi, Dimitrios I. Fotiadis **“Three-Dimensional Reconstruction of Coronary Arteries and Plaque Morphology Using CT Angiography - Comparison and Registration Using IVUS”** *Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS, 2014*
18. **Panagiotis Siogkas**, Lambros Athanasiou, Antonis Sakellarios, Kostas A. Stefanou, Themis P. Exarchos, Michail I. Papafaklis, Katerina K. Naka, O. Parodi, Lampros K. Michalis, Dimitrios I. Fotiadis **“Validation Study of a 3D-QCA Coronary Reconstruction Method Using a Hybrid IntraVascular UltraSound and Angiography Reconstruction Method and Patient-Specific Fractional Flow Reserve Data”** *Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS, Vol. 2015, pp. 973-976, 2015.*
19. **Panagiotis K. Siogkas**, Constantinos D. Anagnostopoulos, Themis P. Exarchos, Riccardo Liga, Juhani Knuuti, Arthur J.H.A. Scholte, Oberdan Parodi, Lampros K. Michalis, Danilo Neglia, Dimitrios I. Fotiadis, **“Computational Hemodynamic Assessment of coronary lesions from Computed Tomography Angiography. A novel approach”**, *European Society of Cardiology Congress 2016*
20. **Panagiotis K. Siogkas**, Michail I. Papafaklis, Bill D. Gogas, Habib Samady, Lampros K. Michalis and Dimitrios I. Fotiadis, **“Computational Estimation of the Severity of Coronary Lesions with IntraVascular UltraSound Images: a pilot study”**,

21. **Panagiotis K. Siogkas**, Vassiliki Kigka, George Rigas, Antonis I. Sakellarios, Themis P. Exarchos, Dimitrios I. Fotiadis “**Analysis of Coronary Computed Tomography Angiography for 3D reconstruction of arterial trees and plaque detection**” *BHI-2017 International Conference on Biomedical and Health Informatics*
22. **Panagiotis K. Siogkas**, Antonis I. Sakellarios, George Rigas, Themis P. Exarchos, Michail I. Papafaklis, Gualtiero Pelosi, Oberdan Parodi, Lampros K. Michalis, Dimitrios I. Fotiadis “**Computational Estimation of the Hemodynamic Significance of Coronary Stenoses in Arterial Branches deriving from CCTA: a proof-of-concept study**” *Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBS, 2017*
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