

## **DR. FILIPPOS (PHILIP) AZARIADIS – TOPALOGLOU**

### **Professor**

*Director of the M.Sc. Programme “Integrated Product Design and Innovation”*

*Director of the “Integrated Industrial Product Design Lab”*

### **University of the Aegean**

Department of Product and Systems Design Engineering

84100 Ermoupolis, Syros

URL: [www.syros.aegean.gr/users/azar](http://www.syros.aegean.gr/users/azar)

E-mail: [azar@aegean.gr](mailto:azar@aegean.gr)

Tel.: +30 22810-97129, +30 694-7726984

### **PERSONAL INFORMATION**

- *Date & Place of Birth:* November 7, 1972, Korydallos (Attica), Greece.
- *Marital status:* Married, 2 children.

### **AREAS OF SPECIALIZATION AND RESEARCH**

- *Computer-Aided Design and Computer-Aided Geometric Design:* Research, development of models and representational techniques for product design. Mathematical models of curves, surfaces and solids. Point-based modelling, Surface flattening and parameterization. 2D sketch to 3D solid methods. Computer-Aided Product and Structure Study. Parametric modelling of human anatomy. 3D Segmentation. CAD/CAE and cloud computing. CAD/CAE/CAM and Industry 4.0.
- *Reverse Engineering:* Parameterization and geometric reconstruction of three-dimensional surfaces. Image segmentation and boundary recognition.
- *Bioengineering:* Development of foot biomodel, mechanical plantar pressures analysis, plantar mechanical comfort.
- *Computer Graphics:* Advanced representation and transformation models. Photorealism and texture mapping. Anti-aliasing.
- *Motion Design:* Research, development of methods for optimal motion design for armed or car-like units. Ship route calculation. Continuous and grid-based path-planning methods.
- *Operational Research:* Linear and non-linear programming. Evolutionary and hybrid optimization methods.
- *IT/Design/Development Tools:* Programming Languages C/C++ (MSVC++), Pascal, Delphi, Fortran 77, Digital Fortran 90, Basic. Special Programming Technologies OMP, CUDA, Assembly x86, MMX & SSE instructions. Mathematic/Geometric Libraries CGAL, IMSL/CNL, ACIS. Graphics Libraries (APIs) DirectX/3D, OpenGL. Databases Oracle, MS Access, ODB, DAO. Design software AutoCAD, Creo Parametric (Pro/Engineer), 3D Studio Max. Reverse Engineering Software Geomagic Studio, Rapidform.

### **EDUCATION**

**1995-** *Ph.D. in Mechanical Engineering & Aeronautics*

**1999** Mechanical Engineering & Aeronautics Department, University of Patras

*Dissertation: "Development of Approximately Isometric Mappings of Arbitrarily Three-dimensional Surfaces onto the Plane. Application in Computer Graphics".*

Supervisor: Prof. Nikos Aspragathos

<http://dx.doi.org/10.12681/eadd/11800>

**1990-** *Mathematics Degree (4-years Bachelor)*

**1994** Department of Mathematics, University of Patras.

## **PROFESSIONAL EXPERIENCE**

**February 2002 – Today:** *University of the Aegean, Department of Product and Systems Design Engineering*

- September 15, 2017 - today: Professor (Government gazette [905/14.09.2017 τ.Γ](#)).
- September 1st, 2011 – September 14th, 2017: Associate Professor (Government gazette [620/30.08.2011](#))
- November 16, 2005 – August 31, 2011: Assistant Professor (Government gazette [228/13.9.2005](#) & [501/02.07.2009](#))
- February 13, 2002 – November 15, 2005: Instructor

**May 2001 – December 2010:** *ELKEDE – Technology & Design Centre SA*

*About the Company:* ELKEDE – Technology & Design Centre SA was a multi-technological research institute and educational organisation with sectorial activities in: (a) Footwear, (b) Leather-Tannery, (c) Textile, (d) Wood – Furniture, (e) Plastics (polymers), (f) Clothing.

*Department:* Research & Technology

- July 2005 – December 2010: Senior R&D Consultant, Project Manager (External Collaborator)
- May 2001 – June 2005: Coordinator of the R&T Department

## **ACADEMIC TEACHING EXPERIENCE**

*Undergraduate Courses at University of the Aegean, Department of Product and Systems Design Engineering:*

- *Academic year 2020-2021: sabbatical*
- "Computer Graphics (K.6153)", Academic Years 2014-2021, Fall Semester.
- "Studio 7b – Detail Product Design (K.7323)", Academic Years 2014-2021, Fall Semester.
- "Computer-Aided Design (K.5153)", Academic Years 2014-2020, Spring Semester.
- "Introduction to Computer-Aided Design (CAGD) (K.2404)", Academic Years 2014-2019, Fall Semester.
- "Engineering Drawing (K.4502)", Academic Years 2014-2020, Spring Semester.
- «Current technologies for design and prototyping of industrial products», Academic Year 2019-2020, Spring Semester.
- «Special issues in CAD», Academic Years 2018-2019, Spring Semester.
- "Computer-Aided Design (K.5151)", Academic Years 2002-2014, Fall Semester.
- "Introduction to Computer-Aided Design (K.2401)", Academic Years 2002-2014, Fall Semester.
- "Computer Graphics (K.6151)", Academic Years 2002-2014, Spring Semester.

- “Engineering Drawing (K.4500)”, Academic Years 2009-2014, Spring Semester.
- “Methods for Product & Systems Development (K.3201)”, Academic Years 2002-2009, Spring Semester.
- “Introduction to Computer-Aided Design (K.2400)”, Academic Year 2001-2002, Spring Semester.
- “Mathematics II - Exercises”, Academic Year 2001-2002, Spring Semester.

*Post-Graduate Courses at University of the Aegean, Department of Product and Systems Design Engineering:*

- “Computer-Aided Design”, Academic Years 2016-2021, Fall Semester.
- “Special Issues on Product Design”, Academic Years 2016-2021, Fall Semester.
- “Detail Product Design”, Academic Years 2016-2020, Spring Semester
- “Introduction to Computer-Aided Design (CAD)”, Academic Years 2010-2016, Fall Semester.
- “Computer-Aided Design and Analysis (CAD/CAE)”, Academic Years 2010-2016, Spring Semester.
- “Computer-Aided Design (CAD)”, Academic Years 2003-2010, Fall Semester.
- “Geometric Modeling (CAD)”, Academic Years 2003-2010, Spring Semester.

*Post-Graduate Courses at Hellenic Open University, School of Applied Arts – Post graduate program «Lighting Design and Multimedia:*

- “GTP61 Informatics – Multimedia”, May 2014 – July 2014
- “SFP61 Lighting and multimedia applications”, Academic year 2011-2012

*Post-Graduate Courses at University of Patras, Mathematics Department, Graduate Studies Programme:*

- “Computer-Aided Industrial Design I”, Academic year 2002-2003, Fall Semester.
- “Computer-Aided Industrial Design II”, Academic year 2002-2003, Spring Semester.

*Summer Schools/Academies*

**July 2019:** *Scientific Coordinator and Instructor of the summer school PRODECT 2019 (Industrial Product Design and Concept Development):* <https://summer-schools.aegean.gr/PRODECT2019>

- Introduction to Product Life Cycle and Concept Design.
- Introduction to Reverse Engineering and Rapid Prototyping.

**July 2017:** *Scientific Coordinator and Instructor of the summer school PRODECT 2017 (Industrial Product Design and Concept Development):* <https://summer-schools.aegean.gr/PRODECT2017>

- Introduction to Product Life Cycle and Concept Design.
- Parametric Design with Creo Parametric.
- Introduction to Reverse Engineering and Rapid Prototyping.

**July 2016:** *Co-Organizer and Instructor of the summer academy CREA 2016 (Technology Inspired Ventures in the Creative and Cultural Industries):* [http://www.creasummeracademy.eu/?page\\_id=815](http://www.creasummeracademy.eu/?page_id=815)

- Product Design Tools

**July 2015:** *Scientific Coordinator and Instructor of the summer school PRODECT 2015 (Industrial Product Design and Concept Development):* <https://prodect2015.pns.aegean.gr/>

- Introduction to Product Life Cycle and Concept Design.
- Parametric Design.
- Introduction to Reverse Engineering and RE Lab.
- Rapid Prototyping.

**July 2014:** *Scientific Coordinator and Instructor of the summer school ACADEM'14 (Advanced technologies in Product Design, Engineering and Manufacturing):* <https://academ2014.pns.aegean.gr/>

- Introduction to Product Life Cycle and Concept Design.
- Introduction to CAGD - Parametric Curves and Surfaces.
- Reverse Engineering and Digital Design Methods.

**July 2013:** *Scientific Coordinator and Instructor of the summer school ACADEM'13 (Advanced technologies in Product Design, Engineering and Manufacturing):* <https://academ2013.pns.aegean.gr/>

- Introduction to Product Life Cycle and Concept Design.
- Reverse Engineering and Digital Design Methods.

**September 2012:** *Instructor at the Intensive Summer School SuSeDe 2012 (Emerging Theories, Methodologies and Applications in the area of Design: Sustainability & Service Design – Erasmus Intensive Programmes):* <http://www.susede.syros.aegean.gr/>

- “Computer-Aided Service Design”.

## **SUPERVISION OF FINAL STUDENT THESES**

- Undergraduate Studies Programme (>15).
- Graduate Studies Programme “Integrated Product Design and Innovation” & Graduate Studies Programme “Design of Interactive and Industrial Product & Systems” (>20).
- Open Hellenic University (1).

## **OTHER ACADEMIC TEACHING EXPERIENCE**

### **1995– 1999: Mechanical Engineering & Aeronautics Department, University of Patras**

- Tutor of laboratory courses “Electrical Circuits and Machines I” with main instructor Prof. N. Aspragathos. *Academic Years 1995-99.*
- Tutor of laboratory courses “Mechanical Design” with main instructor Assoc. Prof. Ch. Papadopoulos. *Academic Years 1995-99.*
- Tutor of exercises for the course “Robotics” with main instructor Prof. N. Aspragathos. *Academic Years 1997-99.*
- Lecture at the graduate course “Special Issues on Robotics” with main instructor Prof. N. Aspragathos. *Three hours lecture at the Spring Semester at the Academic Years 1998-99. Subject: “Representation and Transformation of Geometric Entities Using Dual Unit Vectors and Dual Unit Quaternions”.*

- EPEAEK-Action 3.4.c: Continuous Vocational Training Program, “Computer-Aided Product Design. CAD/CAM”, Scientific Supervisor: Assoc. Prof. Ch. Papadopoulos. *Twenty-five hours seminars to professionals of different specialties (University Graduates). October 1997.*

## ACADEMIC R&D PROJECTS

### University of the Aegean, Department of Product & Systems Design Engineering

- **2020-2023:** Digital Transformation of South Aegean Sea in Culture and Tourism, Operational Programme Competitiveness, Entrepreneurship & Innovation – EPAnEK (Coordinator, Budget: 522.000€).
- **2020-2023:** Network of Excellence in Agri-Food Research and Innovation of the South Aegean, Operational Programme Competitiveness, Entrepreneurship & Innovation – EPAnEK (Coordinator, Budget: 56.438,50€).
- **2021-2022:** Introduction to Computer-Aided Parametric Design Εισαγωγή – Parametric Modeling with PTC - Creo Parametric, KALLIPO+ (Coordinator).
- **2018-2022:** Design and Innovation Capacity Building in India / DESINNO, Erasmus+ Capacity Building, Grant agreement 598404-EPP-1-2018-1-IN-EPPKA2-CBHE-JP - ENV2 (Project Manager, Budget: 870.855€).
- **2019-2021:** SciLED-Footwear in the 21st century: New skills for the design of drastically improved comfort, sustainable, fashion-oriented and scientifically-led footwear products, Erasmus+ Knowledge Alliance, PROJECT NUMBER – 601137-EPP-1-2018-1-RO-EPPKA2-KA (Project Manager, Budget: 777.853€).
- **2019:** Summer School PRODECT’19 - Industrial Product Design and Concept Development, Scientific Coordinator.
- **2018:** Integrated industrial design of the energy production system Prometheus 5, ELBIO, Scientific Coordinator.
- **2018:** Preliminary study for the design and development of electric car prototype, BLUE RAYS, Scientific Coordinator.
- **2017:** Summer School PRODECT’17 - Industrial Product Design and Concept Development, Scientific Coordinator.
- **2014-2016:** CREA Summer Academy: Network of summer academies for the improvement of entrepreneurship in innovative sectors and the development of an ICT business idea contest, Horizon 2020-ICT-2014-1 (Coordinator: Politecnico di Milano (Polimi) Budget: 1.59M Euro)
- **2012-2015:** 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). Research Program “Aristeia” (Scientific Coordinator. Budget: 0.3M Euro).
- **2012-2015:** 3D Object retrieval, Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) - Research Funding Program: THALES (MIS 379516). Investing in knowledge society through the European Social Fund.
- **2014 – 2015:** Design of oil containers for CYCLON S.A. (Scientific Coordinator).
- **2015:** Summer School PRODECT’15- Industrial Product Design and Concept Development, Scientific Coordinator, July, 2015.
- **2014:** Summer School ACADEM’14 - Advanced technologies in Product Design, Engineering and Manufacturing, Scientific Coordinator, July, 2014.
- **2013:** Summer School ACADEM’13 - Advanced technologies in Product Design, Engineering and Manufacturing, Scientific Coordinator, July, 2013.

- **2012:** Improvement of net roof for clean spaces, Voucher Number: 12140565-05-000288 “Vouchers for SMEs” (Scientific Coordinator).
- **2011:** Geometric modeling and photorealistic representation of a model of an ancient penteconter (Scientific Coordinator).
- **2011:** Development of a floating pool light with remote control, Voucher Number: 79104403-05-000016 “Vouchers for SMEs” (Scientific Coordinator).
- **2009-2012:** SMILIES: Small Mediterranean Insular Light Industries Enhancement and Support 1G-MED08-454 (Scientific Coordinator).
- **2008:** Electronic Services for the Support of Traditional Folk Art, R&D Project funded by ELKEA (Scientific Coordinator).
- **2007-2009:** A New Parametric CAD system for the Reconstruction of Traditional Jewellery, R&D Project funded by ELKA (Scientific Coordinator).
- **2005-2008:** 3D Graphics search and retrieval, PENED 20 03 E520 (Researcher, S.C.: Demokritos).
- **2004-2008:** A modern 2D/3D CAD system for apparel design, R&D Project funded by ELKEDE (Researcher, S.C.: Assoc. Prof. N. Sapidis).
- **2003-2008:** Visual Environment for Furniture Presentation, R&D Project funded by ELKEDE (Researcher, S.C.: Assoc. Prof. N. Sapidis).
- **2003-2005:** Integrated Environment for Collaborative Design of Product and Processes through 3D Human Models, Concerted Programme For Electronic Business, Operational Programme «Information Society» Axis 3 – Measure 3.3 (Researcher, S.C.: Dept. of Mechanical Engineering and Aeronautics, U of Patras).
- **2003-2005:** Information Management and Exchange in Network-Centric Product Design: Modeling Component Knowledge in Design Repositories, Bilateral R&T Programme Greek-France 2003-2005, (Researcher, S.C.: Assoc. Prof. N. Sapidis).

### **University of Patras, Department of Mechanical Engineering and Aeronautics**

- **2003-2006:** *Post Doc researcher* (and author of the research proposal) in the Research Project “Optimal robot motion design based on Computational Geometry”, Basic Research Programme “K. Karatheodoris”, University of Patras, 2003
- **1997-2000:** *Main Researcher* (and author of the research proposal) in the Research Project: “Development of an Integrated Package for Computer-Aided Footwear Design and Manufacture”, ELKEDE, 1997.
- **1995-1997:** *Main Researcher* in the National Research Project: “Algorithms for Approximate Design of Planar Developments of Arbitrary Surfaces. Application in CAD”, PENED 91, 482.
- **1995-1999:** Ph.D. dissertation.
- **1995-2003:** Member of the *Robotics Research Group* (Prof. N. Aspragathos).

### **INDUSTRIAL R&D PROJECTS**

**2001-2010:** *Personal involvement in the implementation and/or preparation of National & European Research Projects through my collaboration with ELKEDE – Technology & Design Centre SA:*

- **2008-2011:** Knowledge Based Collaborative 3D Virtual Design dedicated to the Clothing & Leather/Footwear SMEs (ECO-TEX-DESIGN), FP7 (Greek project manager. Total budget: 4.2M Euro).

- **2010-2012:** Promotion of Environmental Legislation among European Footwear Industries (SHOELAW), LIFE08 ENV/E/000147 (Greek project manager. Total budget: 0.874M Euro).
- **2004-2008:** Custom, Environment, and Comfort made shoe (CEC-made-shoe), Integrated Project, FP6 (Greek project manager. Total budget: 19.135M Euro).
- **2003-2008:** Intelligent Computer-Aided Footwear Design (ICAFD), Eureka (Proposal author & project leader. Total budget: 2.3M Euro).
- **2003-2008:** Support Infrastructure for Fast and Semi-Customised Shoes Development (DNA-SIFAST), Eureka (Project leader. Total budget: 2.0M Euro).
- **2003-2005:** Intelligent & Multifunctional Rubber Compounds/Adhesives for the Shoe Industry (INNORUBBER), Co-operative Research, 6th Framework Programme (Greek project manager. Total budget: 1.22M Euro).
- **2002-2003:** European Footwear Network for Electronic Trading 3 (EFNET-3), 5th Framework Programme (Greek project manager. Total budget: 0.95M Euro).
- **2002-2004:** Microwave Sensors for Monitoring of Polyurethane Injection/Casting Moulding Processes in the Shoe Industry (MICROSHOE), CRAFT-1999-72356, CRAFT, 5th Framework Programme, (Greek project manager. Total budget: 0.94M Euro).
- **2002-2005:** Improved Roughing with Integrated Sensor Technology (IRIST), GRD1-2001-40403, 5th Framework Programme (GROW) (Total budget: 3.13M Euro).
- **2000-2002:** Intersectorial Technology Transfer on Rapid Prototyping in the Toy and Shoe Industries (T-SHOE), IPS-1999-00027, RTT, 5th Framework Programme.
- **1995-2001:** National Industry Programme EPB – Measure 3.1 (2nd Community Support Framework). Participation in the development of software for the strengthening of the infrastructure of Greek research institutes and SMEs.

**1994 – 2010:** *Development of Commercial Software with ELKEDE – Technology & Design Centre SA:*

- *ShoeSize:* Automatic calculation of real shoe size by measured data (2006-2007).
- *SmartShoe:* Integrated ERP software for the management and monitoring of the production process of a footwear company and the associated resources. *Head of the development team (2004-2005).*
- *Shoe Modeling 3D:* 3D Computer-aided footwear design system. *System design & development (1997-2000).*
- *Shoe Modeling 2D:* 2D Computer-aided footwear design system (pattern engineering). *System design & development (1997-2003).*
- *ShapesScan Pro:* Application of Reverse Engineering for the recognition and geometric modeling of scanned patterns in digital images. *System design & development (1997-2000).*
- *ShoePLUS:* A multimedia system for presenting shoe collections in the market. *Head of the development team (2003).*
- *MasterSoft:* Integrated PDM software for the management and monitoring of the production process of a footwear company. *Head of the development team 2002.*
- *AutoCOD:* Automated calculation of COD and BOD pollution in civil wastes. *System design & development (1998).*

## NON-ACADEMIC TEACHING EXPERIENCE

### 1995 – 1998: IEK Computer Practica – Patras

- *Designing with AutoCAD*: Courses – seminars on designing with AutoCAD in small groups (up to six students) composed mainly of Architects, Civil Engineers, Mechanical Engineers. More than 20 seminars have been completed (duration of each seminar: 20-25 hours).
- Seminars on office applications and operating systems.
- Seminars on designing with AutoCAD to Engineers of the Frygorex Company (November 1997).

### 2001 – 2010: KEK ELKEDE

- Seminars under the vocational training programme “Vocational training and technology transfer in SMEs and VSEs of the leather, plastics, wood-furniture and textile-finishing sectors”, Concerned Business Programme for Competitiveness, Measure 8.2-8.2.4 (2002).
- Several seminars and lectures on the utilization of advanced CAD/CAM technologies for product design and manufacture.
- Inter-enterprise seminars on advanced CAD/CAM technologies.

## SCIENTIFIC & PROFESSIONAL ACTIVITIES

### Referee for the International Scientific Journals (44)

<ul style="list-style-type: none"> <li>▪ ASME Journal of Manufacturing Science and Engineering</li> <li>▪ Computer-Aided Design</li> <li>▪ Computer-Aided Geometric Design</li> <li>▪ Computer-Aided Design &amp; Applications</li> <li>▪ Engineering with Computers</li> <li>▪ The Visual Computer</li> <li>▪ Computer Graphics Forum</li> <li>▪ International Journal of Product Development</li> <li>▪ Graphical Models</li> <li>▪ Information Sciences</li> <li>▪ International Journal of Computer Applications in Technology</li> <li>▪ International Journal of Computer Vision</li> <li>▪ Computers &amp; Electronics</li> <li>▪ Mathematical Problems in Engineering</li> <li>▪ Simulation Modelling Practice and Theory</li> <li>▪ Journal Sensors</li> <li>▪ 3D Research</li> <li>▪ Journal of the International Measurement Confederation</li> <li>▪ Mechatronics</li> </ul>	<ul style="list-style-type: none"> <li>▪ International Journal of Advanced Robotic Systems</li> <li>▪ Journal of Advanced Research in Pure Mathematics</li> <li>▪ International Journal of Vocational and Technical Education</li> <li>▪ Journal of Navigation</li> <li>▪ Robotics and Autonomous Systems</li> <li>▪ Universal Journal of Control and Automation</li> <li>▪ International Journal of Aerospace Engineering</li> <li>▪ Structural Engineering and Mechanics</li> <li>▪ Journal of Medical Imaging and Health Informatics</li> <li>▪ The Open Automation and Control Systems Journal</li> <li>▪ International Journal of Advanced Intelligence Paradigms</li> <li>▪ The Journal of Systemics, Cybernetics, and Informatics</li> <li>▪ The IEEE Robotics and Automation Letters</li> <li>▪ Robotics and Computer Integrated Manufacturing</li> <li>▪ Journal of Engineering Design</li> </ul>
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<ul style="list-style-type: none"> <li>▪ Hybrid Intelligent Systems: Concepts &amp; Applications</li> <li>▪ International Journal on Advances in Software</li> <li>▪ International Journal of High Performance Computing and Networking</li> <li>▪ Transactions on Engineering Management</li> <li>▪ The International Journal of Advanced Manufacturing Technology</li> </ul>	<ul style="list-style-type: none"> <li>▪ Journal of Manufacturing Systems</li> <li>▪ Leather and Footwear Journal</li> <li>▪ IEEE Journal of Biomedical and Health Informatics</li> <li>▪ Mathematics and Computers in Simulation</li> <li>▪ Journal of Marine Science and Engineering</li> </ul>
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### **Referee for the International Scientific Publication (1)**

- Shape Analysis and Structuring, Editors: Leila De Floriani, Michela Spagnuolo, Springer-Verlag

### **Referee for the International Scientific Conferences (41)**

- SPM 2021, Solid and Physical Modeling 2021, California, U.S, September 27 - 29, 2021
- CAD'21, Barcelona, Catalonia, SPAIN, July 5-7, 2021
- MEIE2021, The Fourth International Conference on Mechanical, Electric and Industrial Engineering, Kunming, China, May 22-24, 2021.
- FAIM 2020, The 30th International Conference on Flexible Automation and Intelligent Manufacturing, Athens, Greece, 15-18 June, 2020
- CAD'20, Barcelona, Catalonia, SPAIN, July 6-8, 2020
- CAD'19 Conference, Singapore, June 24-26, 2019
- MED 2019, 27th Mediterranean Conference on Control & Automation, July 1-4, 2019, Akko, Israel
- CAD'18 Conference, July 9-11, 2018, Paris, FRANCE
- '27th International Conference on Robotics in Alpe-Adria Danube Region'
- CAD'17 Conference, Okayama, Japan, August 10-12, 2017
- IFAC WC 2017, The 20th IFAC World Congress, Toulouse Convention Center, Toulouse, France, July 9-14, 2017.
- ICRA 2017, IEEE International Conference on Robotics and Automation 2017, May 29 to June 3, 2017, Marina Bay Sands, Singapore.
- CAD'16, The 2016 International CAD Conference and Exhibition, June 27-29, 2016, Vancouver, BC, Canada.
- SPM 2016 - Solid and Physical Modeling, 20-24 June, 2017, Berlin.
- ICRA 2016, IEEE International Conference on Robotics and Automation, Stockholm, Sweden, May 16-21, 2016.
- 12th International Conference on Product Lifecycle Management, Doha (Qatar), Oct. 19-21, 2015
- The 24th International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2015, Bucharest, Romania, May 27-29, 2015.
- CAD'14, The 2014 International CAD Conference and Exhibition, June 23-26, 2014 Hong Kong, China.
- The 17th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2013, July 9 - 12, 2013 - Orlando, Florida, USA

- CAD'13, The 2013 International CAD Conference and Exhibition, June 17-20, 2013 University of Bergamo, Bergamo, Italy
- 12th International CAD/Graphics 2011 conference, Jinan, China, on September 15-17, 2011.
- CAD'11, The 2011 International CAD Conference and Exhibition, Taipei, Taiwan, June 27-30.
- The 15th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2011, July 19-22, 2011, Orlando, Florida, USA.
- CGI'10, Computer Graphics International 2010, Singapore, June 9-11.
- The 14th World Multi-Conference on Systemics, Cybernetics And Informatics, June 29th - July 2nd, 2010 – Orlando, Florida, USA.
- CAD'10, The 2010 International CAD Conference and Exhibition, Dubai, United Arab Emirates, June 21-25.
- SYROCO 2009: 9th International IFAC Symposium on Robot Control, Nagaragawa Convention Center, Gifu, Japan, September 9-12, 2009.
- 17th Mediterranean Conference on Control and Automation, June 24-26, 2009, Thessaloniki, Greece.
- ReMAR 2009: The ASME/IFTOMM International Conference on Reconfigurable Mechanisms and Robots, London, June 22-24, United Kingdom.
- Computer Graphics, Imaging and Visualization, 25, 26 - 28 July 2006, Sydney, Australia.
- The 6th international conference on Computer-Aided Industrial Design & Conceptual Design (CAID&CD 2005), Delft University of Technology, May 29 - June 1, 2005.
- International Conference Computer Graphics, Imaging and Vision, CGIV05, 26– 29 July 2005, Chinese Academy of Sciences, Beijing, China.
- Eurographics 2004, Grenoble (France), August 30 to September 3.
- International CAD Conference and Exhibition (CAD'04), May 24-28, 2004, Dusit Resort, Pattaya Beach, THAILAND.
- The 9th ACM Symposium on Solid Modeling and Applications 2004 (SM'04), Genova, Italy, June 9-11, 2004.
- The 7th World Multi-Conference on Systemics, Cybernetics and Informatics, SCI 2003, July 27 – 30, 2003, Orlando, Florida, USA.
- International Conference on Geometric Modeling & Graphics, GMAG03, JULY 16-18, 2003, London, UK.
- The 8th ACM Symposium on Solid Modeling & Applications 2003, June 16-20, 2003, University of Washington, Seattle, WA.
- The 11-th International Conference in Central Europe on Computer Graphics, Visualization and Computer Vision 2003, WSCG'03, February 3 - 7, 2003.
- The 7th ACM Symposium on Solid Modeling & Applications 2002, Saarbrücken, Germany.
- The 5th World Multi-Conference on Systemics, Cybernetics and Informatics, SCI 2001, July 22-25, 2001, Orlando, Florida USA.

### **Referee for Funding Bodies (9)**

- Greek ministry of education and religion (ELYDEK and KALLIPOS).
- The French National Research Agency (<http://www.agence-nationale-recherche.fr>).
- Austrian Science Fund (FWF - [www.fwf.ac.at/en/](http://www.fwf.ac.at/en/)).

- Portuguese Foundation for Science and Technology (FCT - <http://www.fct.pt>)
- University of Patras, “K. Karatheodoris” Research Program.
- Member of the project steering committee of the Light Industries Innovation and Technology (ELIIT) Project 2020, <https://ec.europa.eu/eliit>, [https://ec.europa.eu/growth/tools-databases/eliit/steering-board\\_en](https://ec.europa.eu/growth/tools-databases/eliit/steering-board_en)
- Member of the project steering committee of the Light Industries Innovation and Technology (ELIIT) Project 2021, <https://ec.europa.eu/eliit>, [https://ec.europa.eu/growth/tools-databases/eliit/steering-board\\_en](https://ec.europa.eu/growth/tools-databases/eliit/steering-board_en)
- University of Patras, Industrial PhDs, UPatras IQ, 2021.

### **Personal Invitations for Presentation in International Conferences or Workshops (6)**

- Collaborative Conference on 3D Research (CC3DR), June 25 - June 29, 2012, Seoul, South Korea
- Symposium on Geometry: From Science to Applications, TEI of Piraeus, 1-2 June 2012.
- Dagstuhl Seminar 05221: Geometric Modeling, International Conference and Research Center for Computer Science, Schloss Dagstuhl, Germany, May 29- June 03, 2005.
- CNRS Geometric Modeling Workshop (GTMG'2004), Lyon, France, 10-11 March 2004.
- 3D Scanning and Virtual Try-On Systems, EURASIA-TEX Project, Athens, Greece, November 24th – 25th, 2003.
- XIV International Technical Footwear Congress, UITIC, Budapest, Hungary, 10-12 October 2002.

### **MEMBER OF INTERNATIONAL EDITORIAL REVIEW BOARDS (6)**

- Computers in Industry: Guest editor for the special issue “[Technology enablers for the implementation of Industry 4.0 to traditional manufacturing sectors](#)”
- [Digital Manufacturing Technology](#)
- The Journal of Convergence (JoC)
- International Journal of Advanced Robotic Systems
- International Journal on Advances in Software
- ISRN Computer Graphics (2012-2013)

### **MEMBER OF INTERNATIONAL CONFERENCE PROGRAM COMMITTEES (70)**

- Eight International Interdisciplinary Symposium on Art, Science and Technology (MEDEA 2020), 1-8 Sept 2020, Syros, Greece.
- 13th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD 2017), 29-31 July 2017, Guilin, China (<http://icnc-fskd.guet.cn>).
- 15th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2017), June 7-9, 2017, London, the United Kingdom.
- 16th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2017), May 24-26, 2017, Wuhan, China.
- The 2016 IEEE International Conference on Progress in Informatics and Computing (PIC-2016), December 23-25, 2016, Shanghai, <http://pic.shufe.edu.cn>.
- 4th International Conference on Physiological Computing Systems (PhyCS 2017), Jul 28, 2017 - Jul 29, 2017, Madrid, Spain (<http://www.phyics.org/Home.aspx>).

- 12th International Conference on Natural Computation, Fuzzy Systems and Knowledge Discovery (ICNC-FSKD 2016), to be held from 13-15 August 2016 in Changsha, China. (<http://icnc-fskd.hnu.edu.cn>).
- AC 2016, 13th International Conference Applied Computing 2016 October 28 - 30, 2016 - Mannheim, Germany
- HEALTHINF 2017, The 10th International Joint Conference on Biomedical Engineering Systems and Technologies, 21 – 23 February, 2017 - Porto, Portugal.
- 15th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2016), June 26-29, 2016, Okayama, Japan.
- ICACCI-2016, The 2016 International Conference on Advances in Computing, Communications and Informatics, Jaipur, India September 21-24, 2016 (<http://icacci-conference.org/2016/>).
- HEALTHINFO 2016, The First International Conference on Informatics and Assistive Technologies for Health-Care, Medical Support and Wellbeing, August 21 - 25, 2016 - Brussels, Belgium
- The 2015 International Conference on Progress in Informatics and Computing (PIC-2015), December 18-20, 2015, Nanjing, China (<http://pic2015.njust.edu.cn>).
- 2nd International Conference on Information Science and Security (ICISS2015), December 14th – 16th, 2015, Seoul, Korea (<http://icatse.org/iciss>).
- International Conference on Physiological Computing Systems (PhyCS 2016), 29 - 31 July, 2016, Lisbon, Portugal, France (<http://www.phyics.org>).
- The Applied Computing 2015, 24-26 October Maynooth, Greater Dublin, Ireland (<http://computing-conf.org/>)
- 11th International Conference on Natural Computation (ICNC 2015), 15-17 August 2015, in Zhangjiajie, China (<http://icnc-fskd.hnu.edu.cn>).
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- International Conference on Health Informatics - HEALTHINF 2016, 21-23 February 2016, Rome, Italy (<http://www.healthinf.biostec.org/>).
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- 13th International Conference on Software Engineering Research, Management and Applications SERA 2015, Hammamet, Tunisia.
- 12th International Conference on Software Engineering Research, Management and Applications, SERA 2014, August 31st - September 4th, 2014, Kitakyushu, Japan.
- 11th International Conference Applied Computing 2014 October 25 - 27, 2014 - Porto, Portugal (<http://www.computing-conf.org/>).
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- International Conference on Health Informatics - HEALTHINF 2014, 3-6 March, 2014, Eseo, Angers, Loire valley, France (<http://www.healthinf.biostec.org/>).
- 2th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2013), June 16-20, 2013, Toki Messe, Niigata, Japan
- Applied Computing 2013, 23 – 25 October 2013, Fort Worth, Texas, USA
- ADM 2013 - International Workshop on Advances in Data Management, 22-25 August, 2013, Mysore
- International Conference on Health Informatics - HEALTHINF 2013, 11-14 February, 2013, Barcelona, Spain (<http://www.healthinf.biostec.org/>).
- 14th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2013), July 1 - 3, 2013, Honolulu, Hawaii, U.S.A.
- Applied Computing 2012, Plaza de Cibeles, 19 – 21 October, Madrid, Spain.
- The 2012 International Workshop on Web and Multimedia Services (WMS-12), Jeju, Korea, November 22-25, 2012.
- NBIS 2012 - The 15th International Conference on Network-Based Information Systems, Melbourne, Australia, September 26 - 28, 2012.
- ADM 2012 - International Workshop on Advances in Data Management, 3 - 5 August 2012, Chennai, India.
- FSKD'12 - 9th International Conference on Fuzzy Systems and Knowledge Discovery, 29-31 May 2012, in Chongqing, China.
- SERA 2012 - 10th International Conference on Software Engineering Research, Management and Applications, Kunming, Yunnan Province, China, April 16th-18th, 2012.
- 11th IEEE/ACIS International Conference on Computer and Information Science, Shanghai, China, May 30th – June 1st 2012.
- CAD'12 Jun 11-14, 2012 Marriott Gateway on the Falls, Niagara Falls, Canada (<http://www.cadconferences.com/>)
- The 2011 International Workshop on Web and Multimedia Services (WMS-11), Jeju, Korea, December 12-15, 2011 (<http://web.ftrai.org/wms2011/>)
- International Conference on Health Informatics - HEALTHINF 2012, 1-4 February, 2012, Vilamoura, Algarve, Portugal (<http://www.healthinf.biostec.org/>).
- IADIS International Applied Computing 2011 (AC 2011), Rio de Janeiro, Brazil (<http://www.computing-conf.org/>)
- 10th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2011).
- 1st ACIS International Conference on Computers, Networks, Systems and Industrial Engineering (CNSI 2011).
- IMMM 2011, The First International Conference on Advances in Information Mining and Management, July 17-22, 2011, Bournemouth, UK (<http://www.iaria.org/conferences2011/IMMM11.html>).
- Eurographics Workshop on 3D Object Retrieval, April 10, 2011, Llandudno, UK (<http://www.global-edge.titech.ac.jp/3dor2011/>).
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- ICNC'10, 6th International Conference on Natural Computation (<http://icnc-fskd2010.ytu.edu.cn/>).
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- Eurographics 2009 Workshop on 3D object retrieval (<http://3DOR.ge.imati.cnr.it>).
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- SERA 2009 - 7th ACIS International Conference on Software Engineering Research, Management and Applications (<http://acis.cps.cmich.edu:8080/SERA2009/index.html>).
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- IADIS International Conference Applied Computing 2008 (<http://www.computing-conf.org/>).
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- 8th ACIS International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing (SNPD2007) (<http://www.acisinternational.org/>).
- 3rd ACIS International Workshop on Self-Assembling Wireless Networks (SAWN2007) (<http://www.acisinternational.org/>).
- 20th ISCA International Conference on Computer Applications in Industry and Engineering (CAINE 2007).

## **COMMITEES - ADMINISTRATION**

- Dec.19 – Today: Member and Vice-President of the Board of the Property Utilization and Management Company of the University of the Aegean.
- Sep.16 – Aug.'20: Head of the Department of PSDE.
- Oct.13 – Aug.'16: Deputy head of the Department of PSDE.
- June '16 – June '22: Director of the M.Sc. Programme “Integrated Product Design and Innovation”.
- Oct.13 – June '16: Director of the M.Sc. Programme “Design of Interactive and Industrial Products and Systems”.
- Sept'19 – Sept.'22: Director of the “Integrated industrial design lab (INDEL)”.
- Sep.16 – Aug.'20: Member of the University Senate.
- Oct.13 – Aug.16: Alternate member of the University Senate.
- May 2012 – Today: President of the Internal Assessment Unit of the Department of PSDE.

- Sep.13 – Aug.14: Member of the Research Council.
- Oct.07-Sep.13: Associate Member of the Research Council.
- Feb.2011 – Today: Member of the Financial Council of the University of the Aegean.
- Feb.2011 – Today: Member of the Research Committee of the DPSD Engineering.
- Mar.2012 – Sept.13: Member of the Programming and Development Committee of the DPSD Engineering.
- 2004 – Today: member of numerous (>10) committees for the selection of university professors.
- 2020: Supervisor of the completed Ph.D. dissertation of Zoi Koutkalaki.
- Today: Supervisor of four ongoing Ph.D. dissertations.

## PUBLICATIONS

### International Scientific Journals

- [A1] Azariadis P., Aspragathos N., Design of Plane Patterns of Doubly Curved Surfaces, Computer-Aided Design, 1997, **29**(10), 675-685, [http://dx.doi.org/10.1016/S0010-4485\(97\)00013-4](http://dx.doi.org/10.1016/S0010-4485(97)00013-4)
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- [A37] Bofylatos S., Azariadis P., Supporting the emergence of Indian design through Design and Innovation centers – a methodological approach, *The Design Journal*, 2021, Under publication

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- [C4] Azariadis P., Sapidis N., Planar developments of free-form surfaces: methods evaluation and visualization of the results, Proc. of the 2nd Greek Conference of Mechanical & Electrical Engineers, Athens, May 17-19, 2007.
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- [C9] Azariadis P., Papagiannis P., A new business model for integrating textile/clothing and footwear production, The 3rd International Conference on Advanced Materials and Systems – ICAMS 2010, Bucharest, Sep. 16-18, 235-240.
- [C10] Xidias E., Azariadis P., Motion design in 2D environments that contain obstacles moving in unknown trajectory, 2<sup>nd</sup> PanHellenic Robotics Conference, 9-10 Dec. 2010, Rion, Greece.
- [C11] Xidias E., Aspragathos N.A., Azariadis P. (2011) Motion Design for Service Robots. In: Jeschke S., Liu H., Schilberg D. (eds) Intelligent Robotics and Applications. ICIRA 2011. Lecture Notes in Computer Science, vol 7101, pp. 630-638. Springer, Berlin, Heidelberg, [http://dx.doi.org/10.1007/978-3-642-25486-4\\_63](http://dx.doi.org/10.1007/978-3-642-25486-4_63)
- [C12] Xidias E., Azariadis P., (2013), Fleet Sizing of Autonomous Vehicles with Kinodynamic Constraints, Proceedings of the RAAD 2013 22nd International Workshop on Robotics in Alpe-Adria-Danube Region, pp 64-71, September 11-13, 2013, Portorož, Slovenia, <http://dx.doi.org/10.1007/s00291-003-0152-4>
- [C13] Papagiannis P., Koutkalaki Z., Azariadis P., Footwear Plantar Mechanical Comfort: Physical Measures and Modern Approaches to Their Approximation, The 5th International Conference

on Advanced Materials and Systems (ICAMS 2014), October 23rd–25th, 2014, Bucharest, Romania.

- [C14] Koutkalaki Z., Papagiannis P., Azariadis P., Papanikos P., Finite element evaluation of the mechanical behaviour of a detailed foot/footwear model, 6th International Conference on Mechanics and Materials in Design (M2D2015), P.Delgada/Azores/Portugal, 26-30 July 2015
- [C15] Xidias E., Azariadis Ph, Motion Planning and Scheduling with Stochastic Demands, The 24th International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2015, Bucharest, Romania, May 27-29, 2015 (Published in *Advances in Intelligent Systems and Computing*, Springer, 371 pp. 429 – 437, [http://dx.doi.org/10.1007/978-3-319-21290-6\\_43](http://dx.doi.org/10.1007/978-3-319-21290-6_43)).
- [C16] Koutkalaki Z., Azariadis P., Papanikos P., Parametric Study of the Effect of Sole's Materials on Plantar Pressure Distribution Using a Finite Element Foot-Footwear Model, The 3rd International Leather Engineering Congress (IAFLI 2015), May 21-22, 2015 Izmir, Turkey.
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### CITATIONS (31/08/2021)

- Paper [A9] has been cited in the **Abstract** of two (2) scientific papers.
- **Google Scholar:** 1083 and h-Index 16.
- **Google scholar citations list:** <http://scholar.google.gr/citations?user=C1XMVAYAAAAJ&hl=en>
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