

George J. Kaisarlis, Ph.D., M.Eng.

Mechanical Engineer

(February 2023)

1. PERSONAL DATA

• First Name	George
• Family Name	KAISARLIS
• Date and Place of birth	April 11 th , 1972, Athens, Greece
• Military Obligations	Fulfilled (<i>Hellenic Navy</i>)
• Citizenship	Hellenic (<i>EU working status</i>)
• Office Phone	+30 210 7723682
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2. EDUCATION & DEGREES

April 2007	Ph.D. in Mechanical Engineering School of Mechanical Engineering, National Technical University of Athens (NTUA), Athens, Greece
Title of Ph.D. thesis:	<i>"On the Development and Application of Reverse Engineering Methodologies"</i>
Principal subjects:	Mechanical Engineering Design, Reverse Engineering and Precision Manufacturing
Advisor:	Professor M. M. Sfantsikopoulos
Co-Advisors:	Ass. Professor S. Diplaris, Professor A. Kanarachos
February 1997	Diploma (M.Eng. equivalent) in Mechanical Engineering School of Mechanical Engineering, National Technical University of Athens (NTUA), Athens, Greece
Title of Diploma thesis:	<i>"WELDFIX - Development of an Expert System for Modular Welding Fixtures Design"</i>
Principal subjects:	Major in Machine Design and Manufacturing Technology (<i>five years curriculum</i>)

3. WORK EXPERIENCE - ACADEMIA

06/2003 – Today	Research and Teaching Assistant (ΕΔΙΠ) National Technical University of Athens (NTUA), Greece Rapid Prototyping – Tooling & Reverse Engineering Laboratory (RP-T&RE Lab), Mechanical Design & Control Systems Section, School of Mechanical Engineering
	<ul style="list-style-type: none">- Teaching Undergraduate and Postgraduate courses: (i) Mechanical Engineering Drawing I, (ii) Mechanical Engineering Drawing II, (iii) Machine Elements I, (iv) Machine Elements II and (v) Design for Manufacturing & Cost (vi) Design for Additive Manufacturing & applications- Supervising Diploma & Ph.D. projects: Co-Advisor in more than 46 Diploma and 8 Ph.D. Thesis- Participating in national and EU-funded research projects- Writing and publishing of research papers- Provision of specialized technological services for the manufacturing industry (<i>reverse engineering, dimensional metrology, rapid prototyping and tooling, machine design and product development</i>)
09/2008 – 07/2009	Adjunct Professor
& 09/ 2022 – Today	Hellenic Naval Academy (HNA), Athens, Greece Naval Architecture & Marine Engineering Sector
	<ul style="list-style-type: none">- Teaching Undergraduate courses: (i) Mechanical Engineering Drawing, (ii) Machine Elements I (iii) Machine Elements II and (iv) Introduction to Marine Engineering

07/2013

Visiting Lecturer
Delft University of Technology, Delft, Netherlands
Faculty of Industrial Design Engineering, TU Delft

- Tutor on the “*Advanced Methodology and Practice of Embodiment Design in Product Engineering /AMP-EMBODY*” course (*Erasmus Intensive Programme - ERA/IP/12/43*)

01/2009

Visiting Lecturer
Cranfield University, Cranfield, UK
Department of Power and Propulsion, School of Engineering

- Tutor on the “*Systems Engineering in the Marine Environment*” course

4. WORK EXPERIENCE - INDUSTRY

06/1999 – Today

Field Engineer / Engineering Consultant
Hexagon Metrology / InQuality & Q-Control Ltd., Athens, GR

- Lead engineer in projects (>280) concerning the implementation of dimensional metrology/ reverse engineering technologies on industrial manufacturing plants in the Balkans and Middle East area (*GD&T understanding and manufacturing applications, Installation, Calibration, Maintenance, Retrofit and Part Programming on industrial and laboratory Coordinate Measuring Machines (CMM)*)
- Training for PC-DMIS measurement s/w in all levels (*>580 days of provided training*)
- Training for Geometrical Dimensioning & Tolerancing (GD&T) and subjects related to metrology for engineers, technicians, inspection and quality personnel (*>260 days of provided training*)
- Installation, Maintenance and Retrofit of more than 85 CMMs of Hexagon Metrology group
- Performance of ISO 10360 series tests (*>30 per year*) for Hexagon Metrology group CMMs

10/1997 – Today

Engineering Consultant/ Trainer

- Training for Geometrical Dimensioning & Tolerancing (GD&T) and subjects related to technical product specifications/ metrology for engineers, technicians, inspection and quality personnel
- Consultancy services on the assessment of engineering drawings and technical specifications reviews
- Design and manufacturing of machining, assembly and inspection jigs and fixtures
- GD&T interpretation for process planning and precision machining
- Dimensional quality control planning and hands-on inspection using various measurement tools (*CMM, profile projectors, quality assurance fixtures, gages, hand tools*)

5. LANGUAGES

Greek (native), *English* (excellent oral/written abilities), *Spanish* (very good oral/written abilities) and *French* (good oral/written abilities).

6. MEMBERSHIPS AND AFFILIATIONS

Hellenic Association of Mechanical – Electrical Engineers (HAMEE) – since 1997

Technical Chamber of Greece (TCG) – since 1997

American Society of Mechanical Engineers (ASME) – since 1999

Hellenic Society of Biomedical Technology (ELEVIT) – since 1999

Hellenic Society for Non-Destructive Testing (HSNT) – since 2005

7. COMPUTER LITERACY

Proficient in MS Windows and core MS applications (*Word, Excel, PowerPoint*), excellent working knowledge of various Mechanical Engineering Design 3D-CAD s/w (*SolidWorks, NX, Inventor*) and Reverse Engineering/ Digitization/ Dimensional Metrology s/w (*Geomagic Studio & Geomagic Qualify, PC-DMIS*).

8. AWARDS – GRANTS

- “*Thomaidio*” Award for the best Ph.D Thesis in National Technical University of Athens (NTUA) for the year 2007, NTUA, Greece, 2010.
- “*Training and mobility of young researchers*” Grant, European Union, 2003.
- “*Training and mobility of young researchers*” Grant, European Union, 2000.

- "Thomaidio" Award for best scientific paper presented in international conference with full text review, National Technical University of Athens (NTUA), Greece, 1999.
- ICCS (Institute of Communications and Computer Systems) Grant, National technical University of Athens (NTUA), Greece, 1999.

9. RESEARCH FIELDS

- Mechanical Engineering Design, Design for Manufacturing and Design for Cost with particular emphasis on precision engineering.
- Reverse Engineering, Laser 3D Scanning and Free Form Surface Evaluation.
- Geometrical Dimensioning and Tolerancing (GD&T), Advanced Tolerancing Techniques, Tolerance synthesis/ analysis, Tolerance Transfer, Cost-Tolerance Functions.
- Industrial Dimensional Metrology, Inspection Programming with Coordinate Measuring Machines (CMM), Soft Gauging, First Article Inspection and Certification.
- Computer Aided Design (CAD), Digital Product Data Exchange protocols in CAD systems (IGES, STEP 203, STEP 214, STL), 3D-CAD annotation in accordance with ISO 16792:2006 and ASME Y14.41-2003, Mathematical background of CAD systems.
- Rapid Prototyping and Rapid Tooling.
- Uncertainty analysis and estimation in measurement systems as per ISO GUM (Guide to the expression of uncertainty in measurement).

10. PUBLICATIONS AND RESEARCH ACTIVITY

List of Publications include: 2 Theses, 1 Book Chapter, 16 Articles in Refereed Archival Journals and more than 40 Publications in Peer-Reviewed Proceedings of Scientific Conferences (*Full Paper Review*).

Total number of Citations (*Scopus*): 109, *h-index*:6, ORCID ID: <https://orcid.org/0000-0002-4990-9579>

Participation in more than 20 National and EU-funded research projects.

10.1 LIST OF SELECTED PUBLICATIONS

A –Theses

A.1. Doctoral Thesis: Kaisarlis, G.J., "On the Development and Application of Reverse Engineering Methodologies", Ph.D. Degree in Mechanical Engineering (*in Greek*), National Technical University of Athens, Greece (NTUA), 2007.

A.2. Diploma Thesis: Kaisarlis, G.J., "WELDFIX - Development of an Expert System for Modular Welding Fixtures Design", Master Degree in Mechanical Engineering (*in Greek*), National Technical University of Athens, Greece (NTUA), 1997.

B - Book Chapter

Kaisarlis, G.J., A Systematic Approach for Geometrical and Dimensional Tolerancing in Reverse Engineering, *INTECH Book "Reverse Engineering - Recent Advances and Applications"*, A.C. Telea (Ed.), Ch.7, pp. 133 – 160, ISBN 979-953-307-268-4, 2012.

C – Articles in Refereed Archival Journals

C.16. Spagopoulos, D., **Kaisarlis, G.**, Spagopoulou, F., Halazonetis, D.J., Güth, J.-F., Papazoglou, E., In Vitro Trueness and Precision of Intraoral Scanners in a Four-Implant Complete-Arch Model, *Dentistry Journal*, Vol. 11(1), 27, <https://doi.org/10.3390/dj11010027>, 2023.

C.15. Vakouftsis, C., Mavridis-Tourgelis, A., **Kaisarlis, G.**, Provatidis, C.G., Spitas, V., Effect of datum system and datum hierarchy on the design of functional components produced by additive manufacturing: a systematic review and analysis, *International Journal of Advanced Manufacturing Technology*, Vol. 111(3-4), pp. 817-828, <https://doi.org/10.1007/s00170-020-06152-6>, 2020.

C.14. Mavridis-Tourgelis, A., Vakouftsis, C., **Kaisarlis, G.** et al. Computational implementation of part stiffness on tolerance specification based on the functional performance of assemblies, *International Journal of*

Advanced Manufacturing Technology, Vol. 111(1-2), pp. 397–410, <https://doi.org/10.1007/s00170-020-06139-3>, **2020**.

C.13. Kaisarlis, G., Vasiliou, G., Spitas, V. et al. Manufacturing of Ultra-Fine Particle Coal Fly Ash–A380 Aluminum Matrix Composites with Improved Mechanical Properties by Improved Ring Milling and Oscillating Microgrid Mixing, *Journal of Materials Engineering and Performance*, Vol. 28(5), pp. 2630-2640, <https://doi.org/10.1007/s11665-019-04083-2>, **2019**.

C.12. Kaisarlis, G., Tsolakis, E., Vasileiou, G., Spitas, V., Tauanov, Z., Inglezakis, V., Itskos, G., Spitas, C., Efficient oscillating micro-grid mixing of CFA-aluminium composite melts, *Journal of Materials Processing Technology*, Vol. 254, pp. 60-71, **2018**.

C.11. Kaisarlis, G., Stathakis, G., A Novel Tolerance Design Approach to Manufacturing and Quality Loss Cost Optimization in Mechanical Assemblies, *International Review of Mechanical Engineering (IREME)*, Vol. 11 (9), pp. 651-660, **2017**.

C.10. Mitsopoulou, V., Michailidis, D., Theodorou, E., Isidorou, S., Roussiakis, S., Vasilopoulos, T., Polydoros, S., **Kaisarlis, G.J.**, Spitas, V., Stathopoulou, E., Provatidis, C., Theodorou, G., Digitizing, modeling and 3D printing of skeletal digital models of *Palaeoloxodon tiliensis* (Tilos, Dodecanese, Greece), *Quaternary International*, Vol. 379, pp. 4-13, **2015**.

C.9. Tsagkalidis, G., Tortopidis, D., Mpikos, P., **Kaisarlis, G.J.**, Koidis, P., Accuracy of 3 different impression techniques for internal connection angulated implants, *Journal of Prosthetic Dentistry*, Vol. 114 (4), pp. 517-523, **2015**.

C.8. Leopoulos, V., **Kaisarlis, G.J.**, Chatzistelios, G., Provatidis, C.G., Design and Implementation of an Interlaboratory Comparison Process for Task – Specific CMM Measurements, *International Review of Mechanical Engineering (IREME)*, Vol. 8 (3), pp. 517-523, **2014**.

C.7. Mpikos, P., Tortopidis, D., Galanis, C., **Kaisarlis, G.J.**, Koidis, P., The Effect of Impression Technique and Implant Angulation on the Impression Accuracy of External- and Internal-Connection Implants, *International Journal of Oral & Maxillofacial Implants*, Vol. 27(6), pp. 1422–1428, PMID: 23189292, **2012**.

C.6. Kaisarlis, G.J., Provatidis, C.G., and Sfantsikopoulos, M.M., A new Approach for the Effectiveness of Coaxiality Tolerance Verification, *Asian International Journal of Science and Technology in Production and Manufacturing Engineering, Special Issue "Variability and quality management"*, F. Vignat and F. Villeneuve (Ed), Vol. 4(3), pp. 37 – 47, **2011**.

C.5. Kaisarlis, G.J., Provatidis, C.G., CAD-based dimensional and geometrical tolerancing implementation by the use of virtual gages: A case study, *Machine Design Journal, (ISSN 1821-1259)*, Vol. 3(3), pp. 205 - 210, **2011**.

C.4. Georgakis, Ch., Santamouris, M. and **Kaisarlis, G.J.**, The vertical stratification of air temperature in the center of Athens, *Journal of Applied Meteorology and Climatology - American Meteorological Society*, Vol. 49(6), pp. 1219 – 1232, **2010**.

C.3. Kaisarlis, G.J., Diplaris, S.C. and Sfantsikopoulos, M.M., Geometrical position tolerance assignment in reverse engineering, *International Journal of Computer Integrated Manufacturing*, Vol. 21 (1), pp. 89 - 96, **2008**.

C.2. Kaisarlis, G.J., Diplaris, S.C. and Sfantsikopoulos, M.M., Position Tolerancing in Reverse Engineering: The Fixed Fastener Case, *Journal of Engineering Manufacture, Proceedings of the Institution of Mechanical Engineers, Part B*, Vol. 221, pp. 457 - 465, **2007**.

C.1. Kaisarlis, G.J. and Sfantsikopoulos, M.M., Feature – Based Process Conversion – A Knowledge Based System Approach, *VDI Berichte, Issue 1614 (ISSN: 00835560)*, pp. 203 -215, **2001**.

D – Publications in Peer-Reviewed Proceedings of International and National Scientific Conferences (Full Paper Review)

D.41. Rogkas, N., Tsolakis, E., Kalligeros, C., Vasileiou, G. Vakouftsis, C., **Kaisarlis, G.**, Markopoulos, A., Spitas, V., Upcycling obsolete mechanical equipment into innovative laboratory test rigs: A low-cost solution or a sustainable design approach?, *ICED 2021, Gothenburg, Sweden, August 16-20, 2021, Proc. of the Design Society*, Vol. 1, pp. 3309 – 3318.

D.40. Xenakis, T., Gikas, V., **Kaisarlis, G.**, Multi-Sensor Based Augmented Virtuality Immersive Technologies For Large scale Metrology Applications, *Proc. of the 7th International Conference on Engineering Surveying (INGEO 2017)*, Lisbon, Portugal, October 18-20, **2017**, CD Proceedings.

- D.39.** Tazhiyev, K., Spitas, C., Inglezakis, V., **Kaisarlis, G.**, Spitas, V., Itskos, G., Tsolakis, E., Comparative simulations of stir-, sonication and extensional flow mixing methods for molten aluminium and fly ash nanoparticles, *Proc. of the 3rd International Conference on Mechanics of Composites (MECHCOMP 3)*, University of Bologna, Italy, July 4-7, **2017**, CD Proceedings.
- D.38.** Giannelis, A., Symeonidou, I., Tzetzis, D., **Kaisarlis, G.**, Kyratsis, P., Laser Scanning and CAD Conversion Accuracy Correction of a Highly Curved Engineering Component using a Precision Tactile Measuring, *Proc. Of 21th Innovative Manufacturing Engineering & Energy International Conference (IManEE 2017)*, Iasi, Romania, May 25-26, 2017, MATEC Web of Conferences 112, 05009 (2017) DOI: 10.1051/mateconf/201711205009, **2017**.
- D.37. Γ. Καϊσαρλής**, Ε. Παπάζογλου, Χ. Προβατίδης, Συνδυαστική χρήση ψηφιακής αποτύπωσης και μηχανικού αισθητήρα επαφής για τη μέτρηση αποκλίσεων θέσης οδοντιατρικών εμφυτευμάτων σε περιβάλλον 3D-CAD/CMM, *Πρακτικά 7ου Πανελληνίου Συνεδρίου Βιοϊατρικής Τεχνολογίας*, Αθήνα, 7 Απριλίου, **2017**, CD Πρακτικών Συνεδρίου, (*in Greek*).
- D.36.** Mitsopoulou, V., Roussiakis, S., Michailidis, D., Theodorou, E., Stathopoulou, E., Mallouchou, M., Manolis, S., Polydoros, S., Vasilopoulos, T., Isidorou, S., **Kaisarlis, G.**, Diplaris, S., Fotiou, D., Costopoulos, T., Maniatis, P., Papailiou, I., Megas, P., Legakis, A., Koussoulakos, S., Tyllianakis, M., Spitas, V., Theodorou, V., Provatidis, C., A study case of a digital and physical representation of the dwarf elephant from Tilos Island, *Proc. of 41st International Symposium on Archaeometry "ISA-2016"*, Kalamata, Greece, 15-21 May, **2016**, CD Proceedings - ISBN 978-618-80277-2-5.
- D.35.** Theodorou, G., Mitsopoulou, V., Roussiakis, S., Michailidis, D., Theodorou, E., Stathopoulou, E., Mallouchou, M., Polydoros, S., **Kaisarlis, G.**, Vasilopoulos, T., Provatidis, C., Reinforcement of natural heritage: Rapid Prototyping Technology in the use of vertebrate palaeontology, *Proc. of 3rd International Geo-Cultural Symposium "SAMARIA 2016"*, Chania-Crete, Greece, 13-15 May, **2016**, CD Proceedings.
- D.34. Kaisarlis, G.**, Gikas, V., Xenakis, T., Stathas, D., Provatidis, C., Combined use of total station and articulated arm coordinate measuring machine on large scale metrology applications, *Proc. of XXI IMEKO World Congress "Measurement in Research and Industry"*, Prague, Czech Republic, 30 August - 4 September, **2015**, CD Proceedings.
- D.33.** Tsagkalidis, G., Tortopidis, D., Mpikos, P., **Kaisarlis, G.J.** and Koidis, P., Accuracy of different impression techniques for internal-connection angulated implants, *Proc. Of 38th Annual Congress of the European Prosthodontic Association (EPA)*, Istanbul, Turkey, September 25 - 27, **2014**, CD Proceedings.
- D.32.** Theodorou, E., Provatidis, C., Mitsopoulou, V., Vasilopoulos, T., Polidoros, S., Roussiakis, S., Michailidis, D., Kousoulakos, S.D., **Kaisarlis, G.J.**, Tyllianakis, M., Spitas, V., Stathopoulou, E., Legakis, A., Theodorou, G., From the Charkadio cave excavation, to a full 3d reconstruction of an extinct elephant. *Vith International Conference on Mammoths and their Relatives*, Grevena - Siatista, Greece, May 5-12, 2014, Abstract Book: S.A.S.G., Special Volume 102: 197, **2014**.
- D.31.** Θ. Ξενάκης, **Γ. Καϊσαρλής**, Β. Γκίκας, Δ. Σταθάς, Χ. Προβατίδης, Επισκόπηση και Πειραματική Αξιολόγηση Σύγχρονων Γεωδαιτικών Αισθητήρων σε Μεγάλης Κλίμακας Βιομηχανικές Εφαρμογές, *5^ο Τακτικό Εθνικό Συνέδριο Μετρολογίας*, Εθνικό Ίδρυμα Ερευνών, Αθήνα, 9-10 Μαΐου, **2014**, CD Πρακτικών Συνεδρίου, (*in Greek*).
- D.30.** Theodorou, G., Roussiakis, S., Mitsopoulou, V., Vasilopoulos, T., **Kaisarlis, G.J.**, Michailidis, D., Theodorou, E., Isidorou, S., Fotiou D. and Provatidis, C., Laser scans, CT scans and conventional photography scans, as a powerful tool for comparative palaeontological studies, *Computer Applications and Quantitative Methods in Archaeology (CAA GR)* Institute of Mediterranean Studies, Rethymno, Greece, March 7 – 8, **2014**.
- D.29.** Theodorou, G.E., Mitsopoulou, V., Isidorou, S.K., Vasilopoulos, T.K., Roussiakis, S.J., Theodorou, E.G., Michailidis, D.G., **Kaisarlis, G.J.**, Provatidis, C.G., A Study Case for a 3D Skeletal Reconstruction of *elephas tiliensis* Based on CT and Laser Scans; Morphology, Population data, and Taphonomy, *Proc. of 10th North American Paleontological Convention (NAPC 2014)*, Gainesville, Florida, USA, February 15 – 18, **2014**, CD Proceedings.
- D.28.** Georgiadis, G., **Kaisarlis, G.J.**, Provatidis, C., Reverse Engineering and Finite Element Analysis of a Gearless Differential, *5th International Conference on Experiments/Process/System Modeling/Simulation/Optimization (5th IC-EpsMso)*, Athens, Greece, July 3 – 6, **2013**, CD Proceedings.

- D.27. Γ. Καϊσαρλής, Π. Λάζαρης, Χ. Προβατίδης, Τρισδιάστατη Ψηφιακή Αποτύπωση Αρχαίων Αντικειμένων και Εκτύπωση Αντιγράφων με τη Βοήθεια Προηγμένων Υπολογιστικών Συστημάτων, 6ο Συμπόσιο της Ελληνικής Αρχαιομετρικής Εταιρείας, Αθήνα, 16-18 Μαΐου, 2013, CD Πρακτικών Συνεδρίου.**
- D.26. Γ. Καϊσαρλής, Χ. Προβατίδης, Μ. Παπαγεωργίου, Ψηφιακή αποτύπωση και τεκμηρίωση αρχαιολογικών ευρημάτων: Ο ρόλος των προηγμένων τεχνολογιών CAD/CAE/CAM, 3ο Συμπόσιο: Αρχαιολογική Έρευνα και Νέες Τεχνολογίες - 3rd ARCH_RNT, Καλαμάτα, 03 - 06 Οκτωβρίου, 2012, CD Πρακτικών Συνεδρίου, (in Greek).**
- D.25. Kaisarlis, G.J., Papageorgiou, M., Provatidis, C., Digital Reconstruction of a Roman Bird-Shaped Glass Vessel from Patras in 3D CAD Environment, 19th Congress of the Association Internationale pour L'Histoire du Verre (AIHV19 - 2012), Piran, Slovenia, 17 - 21 September 2012, AIHV Annales du 19e Congrès, 2012, ISBN: 978-90-72290-05-2, pp. 250-256.**
- D.24. Γ. Χατζηστέλιος, Γ. Λούντζης, Γ. Καϊσαρλής, Β. Λεώπουλος, Χ. Προβατίδης, Διεξαγωγή Διεργαστηριακής Σύγκρισης σε Μετρήσεις Μήκους Προτύπων Πλακιδίων με τη Χρήση Μηχανών Μέτρησης Συντεταγμένων, 4ο Τακτικό Εθνικό Συνέδριο Μετρολογίας, Αθήνα, 2-3 Φεβρουαρίου, 2012, CD Πρακτικών Συνεδρίου, (in Greek).**
- D.23. Θ. Ξενάκης, Γ. Καϊσαρλής, Β. Γκίκας, Δ. Σταθάς, Χ. Προβατίδης, Διερεύνηση Συνδυαστικής Χρήσης Γεωδαιτικών Σταθμών και Μηχανών Μέτρησης Συντεταγμένων σε Μεγάλης Κλίμακας Βιομηχανικές Εφαρμογές, 4ο Τακτικό Εθνικό Συνέδριο Μετρολογίας, Αθήνα, 2-3 Φεβρουαρίου, 2012, CD Πρακτικών Συνεδρίου, (in Greek).**
- D.22 Γ. Καϊσαρλής, Χ. Γαλάνης, Π. Μπίκος, Χ. Προβατίδης, Σχεδιασμός σε περιβάλλον 3D-CAD και κατασκευή πρωτότυπης πειραματικής συσκευής αποτύπωσης οδοντιατρικών εμφυτευμάτων, Πρακτικά 4ου Πανελληνίου Συνεδρίου Βιοϊατρικής Τεχνολογίας, Αθήνα, 20 - 21 Ιανουαρίου, 2012, CD Πρακτικών Συνεδρίου, (in Greek).**
- D.21. Kaisarlis, G.J., Provatidis, C., Virtual Gage Design for the Effective Assignment of Position Tolerances under Maximum Material Condition, Proceedings 7th International Conference of Digital Enterprise Technology (DET2011), Athens, Greece, 28-30 September 2011, ISBN 978-960-88104-2-6, pp. 512-521.**
- D.20. Kaisarlis, G.J., Polydoros, S., Provatidis, C., Evaluation of Geometrical Uncertainty Factors during Integrated Utilization of Reverse Engineering and Rapid Prototyping Technologies, Proceedings 7th International Conference of Digital Enterprise Technology (DET2011), Athens, Greece, 28-30 September 2011, ISBN 978-960-88104-2-6, pp. 532-541.**
- D.19. Kaisarlis, G.J., Diplaris, S.C. and Sfantsikopoulos, M.M., From 2-D engineering drawings to CAD 3-D models: issues and challenges of solid model dimensioning, tolerancing and annotation, International Conference on Advances in Production Management Systems (APMS 2010) - Competitive and Sustainable Manufacturing, Products and Services, Cernobbio (Como Lake, Italy), 11-13 October 2010, Springer Verlag, "IFIP Advances in Information and Communication Technology" (IFIP AICT) series (ISBN: 9788864930053).**
- D.18. Γ. Καϊσαρλής, Συστηματική Προσέγγιση Εκτίμησης της αβεβαιότητας κατά τη διεξαγωγή μετρήσεων βλαπτικών παραγόντων σε βιομηχανικό περιβάλλον, 1ο Πανελλήνιο Συνέδριο για την Υγεία και την Ασφάλεια της Εργασίας - ΕΛ.ΙΝ.Υ.Α.Ε., Αθήνα 29-30 Νοεμβρίου, 2010, CD Πρακτικών Συνεδρίου, (in Greek).**
- D.17. Γ. Καϊσαρλής, Σ. Διπλάρης, Μ. Σφαντζικόπουλος, Συστηματική Προσέγγιση CAD στη Βιομηχανική Μετρολογία Εξαρτημάτων με Ελεύθερες Επιφάνειες, 3ο Τακτικό Εθνικό Συνέδριο Μετρολογίας, Λάρνακα, Κύπρος, 5-6 Φεβρουαρίου, 2010, CD Πρακτικών Συνεδρίου, (in Greek).**
- D.16. Mrikos P., Tortopidis D., Kaisarlis G., Koidis P., Kafantaris N., The effect of impression techniques, implants angulation and implant head type on the impression accuracy, Proc. Of 33rd Annual Congress of the European Prosthodontic Association (EPA), Innsbruck, Austria, October 1 - 3, 2009, CD Proceedings.**
- D.15. Dimitrellou Ch.S., Kaisarlis G.J., Diplaris C.S., Sfantsikopoulos M.M., A Cost Optimal Tolerance Synthesis Methodology for Design and Manufacturing Integration, Proc. of 11th CIRP International Conference on Computer Aided Tolerancing, Annecy, France, March 26 - 27, 2009, CD Proceedings.**
- D.14. Kaisarlis G.J., Diplaris S.C., Sfantsikopoulos M.M. and Petropoulos G., Development of a user-friendly software tool for CMM uncertainty evaluation in an industrial environment, Proc. of VIIIth International Scientific Conference on COORDINATE MEASURING TECHNIQUE, Bielsko-Biala - Ustron, Poland, March 31 - April 2, 2008, pp. 167 - 174.**

- D.13. Γ. Καϊσαρλής, Σ. Διπλάρης, Μ. Σφαντζικόπουλος, Πειραματική μέθοδος εκτίμησης της αβεβαιότητας μηχανών μέτρησης συντεταγμένων σε βιομηχανικό περιβάλλον, 2^ο Τακτικό Εθνικό Συνέδριο Μετρολογίας, Θεσσαλονίκη, 19 – 20 Οκτωβρίου, 2007, CD Πρακτικών Συνεδρίου, (in Greek).**
- D.12. Tsakatikas, D, Kaisarlis, G.J.,** Reverse engineering in industrial maintenance component criticality analysis, *Proc. of 4th International Conference on NDT*, Chania, Greece, October 11 – 14, 2007, HSNDTint2007 CD Proceedings.
- D.11. Dimitrellou, S. Ch., Kaisarlis, G.J.,** Diplaris, S.C. and Sfantsikopoulos, M.M., A systematic approach for functional and cost optimal dimensional tolerancing in reverse engineering, *Proc. of XVII Metrology and Metrology Assurance (MMA 2007) Conference*, Sozopol, Bulgaria, September 10 -14, 2007, pp. 193 – 197, (ISBN: 9789543340613).
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- D.5. Kaisarlis, G.J.,** Diplaris, S.C. and Sfantsikopoulos, M.M., Identifying and Quantifying accuracy requirements for cultural heritage digital 3D object documentation, *Proc. of ITECOM (Innovative Techniques and Materials for the Protection of Cultural Heritage) European Conference*, Athens, Greece, December 16 – 17, 2003, pp. 77 - 83.
- D.4. Kaisarlis, G.J.,** Diplaris, S.C. and Sfantsikopoulos, M.M., Product Life extension through Reverse Engineering, *Proc. of 5th Industry – Technology – Environment (ITE 2002) Conference*, Moscow, Russia, September 18 – 20, 2002, pp. 663 – 668, Scientific Bulletin MSTU “Stankin”, (ISBN: 580370949).
- D.3. Kaisarlis, G.J.,** Diplaris, S.C. and Sfantsikopoulos, M.M., Tolerance Allocation in Reverse Engineering, *Proc. of 16th International Conference on Production Research*, Prague, Czech Republic, July 29 – August 2, 2001, ICRP-16 CD Proceedings.
- D.2. Kaisarlis, G.J.,** Diplaris, S.C. and Sfantsikopoulos, M.M., A Knowledge-Based System for Tolerance Allocation in Reverse Engineering, *Proc. of 33rd MATADOR Conference*, Manchester, UK, July 13-14, 2000, pp. 527 - 532, D.R. Hayhurst (Ed), Springer Verlag, London, (ISBN: 1852333235), (Τιμήθηκε με το Θωμαΐδειο Βραβείο του Ε.Μ.Π.).
- D.1. Γ. Καϊσαρλής, Χ. Προβατίδης, Μ. Σφαντζικόπουλος, Μια Ολοκληρωμένη προσέγγιση Συνδυασμού Τεχνολογιών CAD/CAM/CAE, Αντίστροφου Σχεδιασμού και Ταχείας Κατασκευής Πρωτοτύπων σε Βιοϊατρικές Εφαρμογές, Πρακτικά 2ου Πανελληνίου Συνεδρίου Βιοϊατρικής Τεχνολογίας, Αθήνα, 5 - 6 Νοεμβ., 1999, σελ.168-172, (in Greek).**

10.2 REVIEWER IN REFERRED JOURNALS

Invited reviewer in the following international journals (in parenthesis the number of reviewed papers):

- I. *International Journal of Advanced Manufacturing Technology*, Springer Verlag, (45).
- II. *Journal of Engineering Manufacture, Proceedings of the Institution of Mechanical Engineers, Part B, IMechE, SAGE Publishing*, (15).
- III. *Mathematical Problems in Engineering*, Hindawi Publishing, (12).
- IV. *International Journal of Computer Integrated Manufacturing*, Taylor –Francis, (16).

V. *Computer Aided Design, Elsevier, (17).*

VI. *Machines, MDPI, (11).*

VII. *The Open Mechanical Engineering Journal, Bentham, (4)*

Invited reviewer in the International Conference on Advances in Production Management Systems (APMS 2010) - "Competitive and Sustainable Manufacturing, Products and Services", Cernobbio (Como Lake, Italy), 11-13 October 2010, organised under the auspice of International Federation for Information Processing (IFIP) - Working Group 5.7.

10.3 INVITED PRESENTATIONS

Invited presenter in the "*Innovative 3D Scanning & 3D Printing Case Studies in the Industrial Design Sector*" Event organised by the International Hellenic University (Apr. 5, 2017) in the International Hellenic University's campus, Thessaloniki, Greece. Title of the presentation: "*Geometrical Specifications and Uncertainty Issues on 3D Scanning and 3D Printing*".