Lefteris G Gortzis, MSc, PhD SMIEEE

MEDICAL PHYSICIST

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FULL CV

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EDUCATION

Ph.D., Medical Physics/Informatics, University of Patras, Greece, December (2004)

      Ph.D. Thesis Title: **Design methodologies for supporting Telediagnostic and Telesurgical Services over web.**

M.Sc., Medical Physics, University of Patras, Greece, (2001)

      M.Sc. Thesis Title: **Systems for sharing MRI medical data using DI.CO.M Servers.**

B.Sc., Physics Science, University of Patras, Greece, July 1998

CAREER

Current Positions

Teaching fellow, Subject: Theory Robotic Surgery, Department of Surgery, School of Medicine University of Patras (September 2014-present).

Adjunct Professor, TEI Patras, Department of Applications of Informatics to Management and Economics, Greece (2010-2013)

Adjunct Professor, TEI Patras, Department of Informatics to Management and Economics, Greece (2009-2010)

Lefteris G. Gortzis MSc, PhD, SMIEEE

Scientific Instructor, of Telemedicine Unit of University of Patras Greece (2004-2014) Link: http://www.telemedicine.upatras.gr

Laboratory Professor, Department of Medical Physics, School of Medicine University of Patras (September 2005-2014)

Research Interests

His main research interests include Telemedicine, Collaborative healthcare systems, Telesurgery, Telediagnosis, Robotics, Data Mining in Medical databases, and Artificial Intelligence, Biological Image Analysis, and Modeling of physiological systems and processes.

Employment in Research Labs & Institutes

Researcher, Industrial Systems Institute (INBIS/ISI), Foundation for Research and Technology-Hellas (01/11/2002–31/12/2003). **INNACT** project, **ACTION 3:** Use of innovative services in the health and safety sectors for the citizens, **TITLE: Peace of mind residential e-services.**

Research Intern, WinVicos system in SuperFast ferries via EUTELSAT. Project title: **An INTEgrated broadband telecommunication pilot teleservices-platform for improving health care provision in the Region of MEDiterranean** (INTERMED), Charité Hospital, Germany and National Research Centre for Physical Sciences (NRCPS)

Demokritos, National Foundation for Research and Technology-Greece (2003-2005)

Projects and Consultancy Experience

Dr. Gortzis has served as a:

Scientific Coordinator in EU Program: Erasmus+ KA2: KA220-HED-E19E3ADF - Project Title: **Support for University Student Mental Health - Training for Teaching Staff** Start date: 01/01/2024 End date: 31/12/2026.

Scientific Coordinator in EU Program: Erasmus+ KA2: Cooperation partnerships in Higher Education Reference: 2021-1-LT01-KA220-HED-000031124 Start date: 01/01/2022 End date: 31/12/2023.

Coordinator in E.U. Medical Informatics Project, entitled "GlucoNID" Innovative TreatMeOut module for monitoring Glucose (Funded by RESEARCH-CREATE-INNOVATE Research Program, Minister of Development, Project Title: **Non-Invasive System for Monitoring, and Preventing Glucose Level (2018)**, T1EDK-01128 **(€ 378.890,16).**

Project leader in E.U. IT Project, entitled "Internet Platform for Organization – Exploitation & Promotion of Conference Tourism and Other Cultural Exhibitions" Project funded in the context of the EU/2005, Western Greece, Budget 118.048 € (SAEP 001/3).

Project leader in E.U. IT Project entitled" Digitalization of the Contents of Pyrgos" Project funded in the context of the EU/94912/002, Western Greece, Budget 77.600€ € (SAEP 3882).

Project Designer in E.U. IT Project entitled "A System for Supporting Electronic Services to Citizens Of Pyrgos" Project funded in the context of Information Society, Minister of Development, Greece.

Sub-investigator in Pfizer Project, entitled "An International Multicenter, Open Label Study to Access the Effectiveness of Amlodipine - Atorvastatin Combination in Subjects with Hypertension and Dyslipidaemia" (The JEWEL II Study). Protocol number: A3841029.

Sub-investigator in project EPET II (EKBAN) entitled "New Services For Tele-Management Of Building Processes Based On Internet Technologies And Building-Home Automation Systems" (01/2001-12/2002).

Researcher, Industrial Systems Institute (I.S.I.), Project's title: "Development and Demonstration of An Innovative System For Provision Of A Bundle Of Residential Peace Of Mind E-Services", INNACT-RWG (2002-2004).

Researcher, EU Project IST-2001-38911: Self Organized Of Connectionist Intelligent Agents Capable Of Learning (01.01.2003 - 31.06.2004).

Consultant of Hellenic National Foundation of Research (1/1/2003-1/1/2004).

Medical Systems

Working as a senior researcher Dr. Gortzis has designed and has guided his team to develop the following systems:

TreatMeOut System: TreatMeOut system is able to monitor Heart Rate, Heart Rate Variability via an innovative mobile app. Android and iOS versions have been developed. Team size: 5 researchers 10 developers.

SatelliteAngio was an innovative R&D project that included the designing and the implementation of a Collaborative clinical system to support the Collaborative Work During Interventional Radiological Procedures Based on a Multicast Satellite-Terrestrial Network. Foundational work in improving modules of composite solutions built on a prototype Wavelet based interactive Video communication system wavelet codec Partition, Aggregation and Conditional Coding (PACC), and an integrated satellite-terrestrial network via EUTELSAT (2006-2007). Team size: 14 researchers.

NetAngio was an innovative R&D project that included the designing and the implementation of a Collaborative clinical system to provide "on the fly" heterogeneous collaboration to support IRP providing interoperating essential services (2005-2006). Team size: 5 researchers.

NetCardio was an innovative R&D project that included the designing and the implementation of a Collaborative clinical system to support

over web synchronous and asynchronous data management, real-time multimedia data telemonitoring and continuous telementoring during interventional cardiology facilities (2005-2006). Team size: 5 researchers.

e-HS (2003-2004) was an innovative R&D project that included the designing and the implementation of a Collaborative clinical system to support useful haematological services. Team size: 4 researchers.

NetUro (2002-2003) was an innovative R&D project that included the designing and the implementation of a Collaborative clinical system to support a Web-enabled network for diagnostic and therapeutic guidance in Urology. Team size: 4 researchers.

PROFESSIONAL SOCIETIES AND POSITIONS

Task Forces and Major University Committees

- **Senior member of IEEE**
- Partner B3 Integrated Care EIP on AHA, Action Group, European Commission

  https://ec.europa.eu/eip/ageing/commitments-tracker/b3/integrated-ehealth-care_en
- Member of **IOT Council**
  (https://www.theinternetofthings.eu/lefteris-gortzis)
- Vice President of IEEE Greece GOLD Affinity Group Council
- Member of Engineering in Medicine and Biology Society (**EMBS**).
- Member of American Medical Informatics Association (**AMIA**)
- Member of Computer Society

Member of Editorial Boards

- Associate Editor of BMC Health Services Research journal (IF=1.71) /Organization, Structure and Delivery of Healthcare' Section

- International Journal of Computer Applications

- International Journal of Applied Information Systems

Reviewer

- BRITISH MEDICAL ASSOCIATION (BMA Medical Book Competition 2006-2007).
- IEEE Transactions on Information Technology in Biomedicine
- Computer Methods and Programs in Biomedicine
- Journal of Medical Internet Research
- IEEE Transactions on Biomedical Engineering,
- IEEE Transactions on Biomedical Engineering, vol. 51, NO. 1, (2004) pp 198-201
- Medical Decision Making

PATENTS

GR 20170200142 Diagnosing Node for providing collaborative services Digital Health and First Assistance

GR 20170100068 Monitoring and prognostic Methodology and system of physical and clinical status and performance of athletes in real time. (A63B 24/00)

GR 20160100513 e-Health Cloud system through Unattended Flying Objects B64C 39/02

GR (GR Patent pending) Method and System for non-invasive Glucose/Diabetes Diagnosis and Monitoring (**GlucoNID**)

LIST OF SELECTIVE PUBLICATIONS (limited to higher IF)

Ph.D & M.Sc Thesis

[D.1] Ph.D Thesis Title: **Design methodologies for supporting Telediagnostic and Telesurgical Services over web,** University of Patras, Greece (2004)

[D.2] M.Sc Thesis Title: **Systems for sharing MRI medical data using DI.CO.M Servers,** University of Patras, Greece (2001)

Articles in peer reviewed Journals

[J.1] C. Pylarinou, S. Zimeras, L.G. Gortzis, A Time Efficient Heart Attack Pre-Hospital Management Methodology Based on Collaborative Scheduling Using Constraint Optimization, **International Journal of Environmental Protection IJEP**, January 2012 Vol.2 no.1 pp.29-34.

[J.2] L.G Gortzis, Estimating the success of e-health collaborative services: the THEMIS framework, **Journal Informatics for Health and Social Care** 2011 Mar;36 (2):89-99. (2011) Feb 3.

[J.3] L.G. Gortzis, Selecting healthcare information systems provided by third-party vendors: A mind map beyond the manuals, **Journal Informatics for Health and Social Care,** January 2010, Vol. 35, no.1, Pages 1-9.

[J.4] L.G. Gortzis, e-Health: Are there expert patients out there? **Journal Health Sociology Review** Vol. 18 (2) 2009: pp 173-181.

[J.5] L.G. Gortzis, D. Alexopoulos, G. Nikiforidis, Structuring an easily reengineered generic system to support collaborative homecare, **International Journal of Telemedicine and Applications, Special issue e-Healthcare.**

[J.6] L.G. Gortzis, I. Ilias, K. Stamoulis, P. Lyberopoulos, I. Dimopoulou, Investigating the Prognostic Accuracy of Standardized Data Mining Methods in Intensive Care Unit, **Journal of Computational Methods in Sciences and Engineering,** 8, 4-6 2009: pp 253-259.

[J.7] L.G. Gortzis, F. Sakelaropoulos, I. Ilias, K. Stamoulis, M. Dimopoulou Predicting ICU survival: A meta-level approach, **Journal BMC Health Services Research** (2008), 8:157 **doi: 10.1186/1472-6963-8-157.**

[J.8] **L.G. Gortzis**, I. Bakettas, C. Makropoulos, G. Graschew, G. Nikiforidis, Portable Biomedical Devices A Critical Issue During Telecare Services Designing, **Journal Informatics for Health and Social Care**, Vol. 33 (2) June (2008), pp 91-98 **doi: 10.1080/17538150802127165.**

[J.9] **L.G. Gortzis,** G. Nikiforidis, Tracing and Cataloguing Knowledge in an e-Health Cardiology Environment, Special issue on Data Mining, **Journal of Biomedical Informatics, Vol 41, Issue 2, pp 217-408 (April 2008) doi 10.1016/j.jbi.2007.09.001**

[J.10] **L.G. Gortzis,** Designing and Redesigning Medical Telecare Services: A Forces-Oriented Model, **Journal of Methods of Information in Medicine,** Vol 46 (1) pp 27-35, (2007).

[J.11] **L.G. Gortzis,** A. Kalogeropoulos, D. Alexopoulos, G. Nikiforidis, Optimizing the Interventional Cardiology Facility: Services Integration in Routine Workflow, **Journal of Methods of Information in Medicine,** Vol 46(3) pp 344-351, (2007).

[J.12] **L.G. Gortzis**, H. Papadopoulos, T. A. Roelofs, S. Rakowsky, D. Karnabatidis, D. Siablis, C. Makropoulos, G. Nikiforidis, G. Graschew, Collaborative Work During Interventional Radiological Procedures Based on a Multicast Satellite-Terrestrial Network, **Journal of IEEE Transactions on Information Technology in Biomedicine,** Vol 11(5) pp 597-599 (2007), **(doi 10.1109/TITB.2007.894724).**

[J.13] Papadopoulos, D. Pappa and **L.G. Gortzis,** A Framework for Dealing With Legal and Clinical Risks Arising from the Use of m-

Health Systems, **Journal on Information Technology in Healthcare,** Vol 5(3) pp 182-195, (2007).

[J.14] L.G. Gortzis, D. Karnabatidis, D. Siablis, G. Nikiforidis, Clinical-Oriented Collaborative Work over Web During Interventional Radiological Procedures, **Journal of Telemedicine and e-Health** Vol 12(4) pp448-456, (2006).

[J.15] L.G. Gortzis, S. Koubias, G. Nikiforidis, Design and the Implementation of a Web-Enabled Haematological Suite, **Journal of Computer Methods and Programs in Biomedicine,** Vol 75(3) pp 221-234, (2004).
TOP25 articles within the journal

[J.16] E. Liatsikos, **L.G. Gortzis,** G. Nikiforidis, G. Barbalias Tele-Diagnostic and Therapeutic Guidance in Urology, **Journal of Endourology,** Vol 18(7), pp 625-628, (2004).

[J.17] E. Liatsikos, **L. G. Gortzis,** A. Athanasopoulos , P. Perimenis, G. Barbalias, G. Nikiforidis, Clinical-oriented Collaborative Work over web during endourology procedures, **Journal of Endourology**, 19: supplement 1, a287-a303, (2005).

[J.18] E.N Liatsikos, **L G. Gortzis,** G. Nikiforidis, G A. Barbalias, Real-time multi-telementoring and teleeducation services for Urologic Laparoscopic Procedures: a new IP methodology **Journal of Urology** 173(4) Supplement :1-467, (2005).

[J.19] E.N Liatsikos, **L G. Gortzis,** G Nikiforidis, G Barbalias Teaching and Learning Curve, **Journal of Endourology,** 17: Supplement 1, pp 361-375, (2003).

[J.20] E.N Liatsikos, **L.G. Gortzis,** G. Nikiforidis, G A. Barbalias, An IP method for supporting real time multi-telementoring and teleeducation services at urologic laparoscopic procedures, **Journal of Endourology,** 18: Supplement 1, P1-P109, (2004).

Articles in Proceedings of peer-reviewed Conferences

[P.1] C. Pylarinou, L.G. Gortzis, S. Zimeras, Coordinating effectively a heart attack pre-hospital service process using constraint optimization programming, Proceedings of the **International Conference of Electrical and Control Engineering (ICECE), 2011,** Yichang 16-18 Sept. 2011, ISBN 978-1-4244-8162-0, pp. 4752 – 4755

[P.2] D. Pappa, **L.G. Gortzis,** H. Papadopoulos and L. K. Stergioulas, Creating an advanced information system for supporting medical knowledge integration and management In Current Perspectives in **Healthcare Computing 2007**, Proceedings of the Healthcare Computing 2007 Conference (HC2007), Harrogate 19-21 March 2007, published by **The British Computer Society Health Informatics Forum**, ISBN 0-9546971-7-0, pp. 55-63.

[P.3] V. Poulopoulos, **L.G. Gortzis,** I. Bakettas, G. Nikiforidis, Multi-agent cooperation infrastructure to support patient-oriented telecare services, in Proceedings of the **4th IEEE International Conference on Information Technology: Research and Education-ITRE,** Tel Aviv, Israel, October 2006, Page(s):253–257

doi: 10.1109/ITRE.2006.381576

[P.4] H. Papadopoulos, D. Pappa and **L.G. Gortzis,** Legal and clinical risk assessment guidelines in emerging M-health systems, in Proceedings of the **IEEE International Conference on Information Technology in Biomedicine,** Ioannina, Greece October 2006, to appear.

[P.5] H. Papadopoulos, D. Pappa and **L.G. Gortzis,** Clinical Risk Assessment Guidelines in Emerging M-Health Systems" in Proceedings of the **First International Workshop on Virtuality and Society: Emerging Themes (IFIP WG 9.5) London School of Economics, UK,** June 16, 2006.

[P.6] I. Bakettas, C. Deimente, **L.G. Gortzis,** G. Nikiforidis. An Advanced Connectivity for Distributed and Heterogeneous Clinical Databases in Proceedings of **Med-e-Tel 2006 Conference** Luxembourg, 2006 Hard copy version (ISSN: 1819-186X), and CD-ROM (ISSN: 1818-9334).

http://www.medetel.lu/download/2006/Proceedings_Contents.pdf

[P.7] E. Liatsikos, **L. G. Gortzis,** A. Athanasopoulos , P. Perimenis, G. Barbalias, G. Nikiforidis, Clinical-oriented Collaborative Work over web during endourology procedures, in Proceedings of

the **23rd World Congress on Endourology & SWL 21st Basic Research Symposium**.

[P.8] E.N Liatsikos, **L G. Gortzis,** G. Nikiforidis, G A. Barbalias, Real time multi-telementoring and teleeducation services for Urologic Laparoscopic Procedures: a new IP methodology **American Urological Association (AUA) San Antonio USA** (24/05/2005) (ID 4108).

[P.9] E.N Liatsikos, **L.G. Gortzis,** G. Nikiforidis, G A. Barbalias, An IP method for supporting real time multi-telementoring and teleeducation services at urologic laparoscopic procedures, in Proceedings of the **22nd World Congress on Endourology and SWL 20th Basic Research Symposium** (2004).

[P.10] E.N Liatsikos, **L G. Gortzis,** G. Nikiforidis, G A. Barbalias, Teaching and Learning Curve, in Proceedings of the **21nd World Congress on Endourology and SWL 19th Basic Research Symposium, Montreal, Canada** 21-24 Sep. (2003).

[P.11] **L. Gortzis,** G. Nikiforidis, An open infrastructure for semantic medical data integration in Proceedings of **International Conference on Information Communication Technologies in Health (ICICTH)** Samos, Greece, pp 27-31 (2004).

[P.12] **L.G. Gortzis,** E. Liatsikos, G. Nikiforidis, Telediagnostic and therapeutic guidance in Urology, in Proceedings of **International Conference on Information Communication Technologies in Health** pp 27-31 Samos, Greece (2003).

Scientific Books and Chapters

L.G Gortzis Medical Informatics and Telemedicine Services**,** Academic Publications (GR), ISBN: 978-960-387-544-4.

L. Gortzis, TeleRadiology: New interventions in the era of Collaboration, TELERADIOLOGY, Editors Sajeesh Kumar, <u>Elizabeth Krupinski</u> **SPRINGER-VERLAG**. (**INVITED**) (2008)   **ISBN: 978 3 540 78870 6**

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D. Pappa, **L.G Gortzis,** Digital Rights Management in organizations: A critical consideration within a socio-technical approach, chapter in the upcoming book entitled Digital Rights Management for e-Commerce Systems, for **Idea Group ING.**

L.G. Gortzis, G Nikiforidis, Innovative web-based Methodologies for Supporting Endo-urological Surgical Procedures p.p 430-444, (Ed) E. Liatsikos, Jen-Uwe Stolzenburg "Endoscopic Urology", Publisher V.Giourdas "Endoscopic Urology",Publisher V. Giourdas Academic Publications. (GR) ISBN: 960-387-481-7