



HELLENIC REPUBLIC  
MINISTRY OF EDUCATION, LIFELONG  
LEARNING AND RELIGIOUS AFFAIRS  
GENERAL SECRETARIAT OF  
RESEARCH & TECHNOLOGY



NATIONAL CENTRE FOR SCIENTIFIC RESEARCH  
«DEMOKRITOS»  
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INSTITUTE OF INFORMATICS & TELECOMMS  
TELECOMS LAB - NET MEDIA LAB  
SECRETARY: KAITI APOSTOLOU – 0030-210-6503129

SCIENTIFIC COORDINATOR & FOUNDER: [DR ATHANASIOS DRIGAS](#)  
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## TELECOMS LAB – NET MEDIA LAB IDENTITY

**E-Services: Interdisciplinary Informatics & Telecommunications Applications for the society and the civilian in Greece and in EU Countries (UK, France, Netherlands, Denmark, Sweden, Finland, Italy, Romania and Cyprus).**

## HISTORY

Net Media Lab began its operation informally at the beginning of the 1990's in the framework of the N.C.S.R. "DEMOKRITOS" Computer Centre and the "Ariadne" Network and in 1996 it was included in the Services Provision Laboratories of the **General Secretariat of Research & Technology**. Today, after 20 years of operation the laboratory belongs to the Institute of Informatics & Telecommunications of N.C.S.R. "DEMOKRITOS" with the name Telecoms Lab - Net Media Lab.

## ACTIVITIES - AXES

With its extensive experience the laboratory can offer integrated informatics & telecommunications solutions to both public and private sector bodies. The central axis of its activities is the development of electronic applications, the basic thematic being the electronic services (e-services) and their incorporation in the public life for the accommodation and the informing of the citizens. In particular, the electronic services span the areas of:

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|---|---|
| ▪ <b>Education, Research &amp; Science:</b>                     | <b>e-education &amp; e-science</b>              |
| ▪ <b>Governance and Public Entities Support</b>                 | <b>e-government</b>                             |
| ▪ <b>Health, Psychology and the Support of Disabled People:</b> | <b>e-health, e-psychology &amp; e-inclusion</b> |
| ▪ <b>Business &amp; Commerce:</b>                               | <b>e-business &amp; e-commerce</b>              |
| ▪ <b>Tourism, Environment and Ecology:</b>                      | <b>e-tourism, e-environment &amp; e-ecology</b> |
| ▪ <b>Culture, Art &amp; Literature:</b>                         | <b>e-culture &amp; e-literature</b>             |

## INFRASTRUCTURE – TECHNOLOGIES

The laboratory is situated at the ground level of the Institute of Informatics & Telecommunications building and possesses workstations for its staff, a Data Center as well as a meeting and teleconference room. Apart from the basic electronic equipment (PCs, Laptops, Printers, etc.) the laboratory possesses:

1. **Satellite Infrastructure (Central Fixed Base Station & Mobile Satellite Station)**
2. **Wireless Infrastructure (Wi-Fi, 802.11a, 802.11n & Laser Bridges, Access Points, etc.)**
3. In house technologies: AI & neural nets (data mining, evaluation methods), security & telecom patents, e-services platforms
4. Servers Farm for:
  - a. Voice Portal (IVR & Speech Servers, Call Managers)
  - b. Web Hosting
  - c. Wi-Fi Network Management
  - d. Electronic Document Management
  - e. Multiple PBX System Management

## SERVICES PROVISION

The laboratory can offer **Research & Development (R&D) services** such as:

1. Consultancy and studies with the basic axis being the optimization of the business procedures with the use of modern ICT techniques and tools.
2. Technical ICT consultant undertaking the planning, the realization and the management of ICT Projects (eg. e-services)
3. Design, realization and hosting of websites and electronic applications (e-services)
4. Electronic satellite applications
5. Voice Portals hosting

## ACHIEVEMENTS - IMPORTANT FACTS - MILESTONES

- 1990: Founding and beginning of the Laboratory's operation
- 1988-1995: Participation and representation in European work groups and organizations (RARE, COSINE & DG Enterprise & Industry)**
- 1998-2010: Participation and representation in transnational project management committees
- 1990: The first distributed dial-up and services network in the Hellenic Universities area (SERVICENET) in the framework of the Ariadne network (in Athens, Salonika, Epirus, Thrace, the Aegean, Peloponnese & Crete).
- 1990–1993: E-government Project: Networking and electronic listing of the Greek scientists who live abroad
- 1991-1995: Innovative & distinguished projects & websites (for their time) about e-Olympics, Christian Orthodoxy, e-government, e-environment, e-ecology, e-culture, e-museums, e-literature, e-music, e-news, e-tourism & e-inclusion (Distinctions by [History Channel](#), Perseus Award, Internet Press, [The Best of Europe: Europe Online](#), [News Resource of Newo](#), Global Education & others.)**
- 1991-1999: Operational supervision and support in the planning, development and service provision of the Ariadne Network
- 1994: Book entitled «Network Applications in the Ariadne Network»**
- 1995: Production of the first Greek educational CD-ROM about learning Greek Sign Language
- 1995-1996: Design and development of the first portal about business at the Athens Chamber of Commerce & Industry
- 1996: Net Media Lab was pertained and funded by the G.S.R.T.'s (General Secretariat of Research & Technology) services provision laboratories
- 1996-2000: Creation of the first Greek web portal (NAOS) with many distinctions**
- 1996-2000: Design and development of the first Greek e-learning project for e-business with the operation of videoconference centers for the education of SMEs (Project: ODISSEAS)
- 1996: Consultant services provision to the General Secretariat for Civil Protection for the exploitation of both videoconference and the Internet and planning of the Centre of Emergencies Situations Management (**Honorable Mention**)
- 1999: Book entitled «Videoconference and Multimedia on the Internet»**
- 1999-2000: Consultant services provision to the **Ministry of Development, dealing with the 2000 virus, participation in the planning of the Information Society & Competitiveness operational programs.**
- 1999-2003: Participation in the **National Informatics Council** (Ministry of the Interior)
- 2000-2010: Production of an informative CD-ROM about e-commerce and of another **25 educational CD-ROMs** in the fields of e-services and the new technologies
- 2000-2002: Consultant services provision to the General Secretariat of Commerce, Planning of the National Electronic System for Public Procurement**
- 2002: Best Practice Distinction for an e-learning project Leonardo da Vinci (SOLWIN) by the E.U.**
- 2002-2008: Development of a pilot satellite (DVB-S & IP) cultural channel in collaboration with the Ministry of Culture.
- 2002-2014: Management of telecommunications infrastructure – multiple PBX system of N.S.C.R “Demokritos”
- 2003: Development of an e-government application for Centers for the Informing of the Youth (General Secretariat for Youth)
- 2003-2014: Development and Management of the N.C.S.R. “Demokritos” web portal
- 2003-2010: Design, development and operational support of an e-psychology and e-learning platform in the framework of the EPEAEK Project (Improvement of the inclusion conditions of people with multiple disabilities in the educational system) in collaboration with the University of Ioannina
- 2003-2010: Publication of a 1000 pages book entitled «Improvement of the inclusion conditions of people with multiple disabilities in the educational system» in collaboration with the University of Ioannina
- 2004-2012: Development of e-learning, e-inclusion projects for hard of hearing people (Projects: DEDALOS, DELFE, ETSL)
- 2004-2011: Design and Management of an e-government application for document management and for IVR, VoIP Gateways and IP Telephony technologies in N.C.S.R. “Demokritos”
- 2005: National Innovation Prize for a Quantum Cryptography Patent**
- 2006: **Publication of a book (Coauthor) entitled «Antikaiadas»** with other University Professors & Researchers
- 2006: Study for the Strategic Planning for the Hellenic Telecommunications 2007-2013
- 2006: 2 articles in NASA's Star Report
- 2006: Best Practice Distinction for an e-learning project Leonardo da Vinci (DEDALOS) by the E.U.**
- 2007: An article for the support of disabled people in a report of the USA Congress to the USA President**
- 2010: European E-Learning award for the LDV ENFORA project**
- 2013: Article in a study of USA ACADEMY of EDUCATION** by Columbia University
- 2014: Article in a study of UK Essays under the title E-procurement in Ministry**
- 2009-2014: Planning, development and management of the N.C.S.R. “Demokritos” wireless network (WIFI, Wireless & Laser bridges, etc)
- 2002-2014: Organizer of many conferences, symposiums and special sessions (bio effects of **EMFs 2002,2004,2006, IFIP conferences, IEEE conferences, IAAP** etc)
- 2006-2014: Reviewer and/or member of the editorial board in journals of the following publishers (**Elsevier, Inderscience & IGI**)
- 2006-2014: Important international references by governmental bodies and scientific committees in USA, EU, Australia, India, Dubai, Thailand, Egypt, Jordan, Ecuador about E-Learning, E-Commerce, E-Inclusion, E-Government, E-Business, Communications, Security & Artificial Intelligence**

[For more information please check Dr. Athanasios Drigas CV here](#)

**IMPORTANT REFERENCES BY GOVERNMENTAL – POLICY MAKING BODIES & STATE-OF-THE-ART ORGANIZATIONS IN USA, EU, AUSTRALIA, INDIA, DUBAI, THAILAND, EGYPT, JORDAN & ECUADOR ABOUT E-LEARNING, E-COMMERCE, E-INCLUSION, E-GOVERNMENT, E-BUSINESS, COMMUNICATIONS, SECURITY & ARTIFICIAL INTELLIGENCE**

A.S. Drigas, J. Vrettaros, D. Kouremenos, “**E-learning Environment for Deaf people in the E-Commerce and New Technologies Sector**”, WSEAS Transactions on Information Science and Applications, Issue 5, Volume 1, 2004.

1. The National Council on Disability of USA October 1<sup>st</sup>, [2007 report to USA President](#) under the title Empowerment for Americans with Disabilities: Breaking Barriers to Careers and Full Employment.

Drigas, A.S., Koukianakis, L.G., Glentzes, J.G., **An ODL system and Virtual Class for the electrical engineering sector**, WSEAS Transactions on Computers, Issue 2, Volume 5, 2006.

2. [Lin Thompson, Reece Lamshed](#), E-learning within the building and construction and allied trades, [Australian Flexible Learning Framework Report, Australian Government](#), Department of Education, Science and Training, 2006.

A. Drigas, L. Koukianakis and Y. Papagerasimou, **An E-Government Web Portal**, WSEAS Transactions on Environment and Development, Issue 1, Volume 1, pp. 150-154, 2005.

3. [Mansoor Alrazooqi, Rohan De Silva](#), **Mobile and Wireless Services and Technologies for M-Government Solution Proposal for Dubai Government**, WSEAS Transactions on Information Science and Applications, Issue 8, Volume 7, pp. 1037-1047, 2010.

A.S. Drigas, J. Bakopoulos, J. Vrettaros, “**Communication networks security: A new method for creating encryption keys**” IPSI Conference, Palo Alto, California, USA, 2006.

4. [National Aeronautics and Space Administration \(NASA\) Scientific and Technical Aerospace Reports STAR](#) Vol 44, Issue 24, 2006.

A.S. Drigas, L. Koukianakis, “**E-government - e-learning Application for Training SMEs in e-activities**”, IPSI Conference, New York, USA, 2006.

5. [National Aeronautics and Space Administration \(NASA\) Scientific and Technical Aerospace Reports STAR](#) Vol 44 Issue 24, 2006.

Drigas, A., Vrettaros, J., “**An Intelligent Tool for Building E-Learning Content Material Using Natural Language in Digital Libraries**”, WSEAS Transactions on Information Science and Applications, Issue 5, Volume 1, p. 1197, 2004.

6. Columbia University, Background Study Prepared for the USA **National Academy of Education**. <http://www.naeducation.org> «Adaptive Educational Technologies and Educational Research: Opportunities, Analyses, and Infrastructure Needs». 2013. Supported by Pearson Foundation
7. [Gary Woodill](#), Ed.D., [Brandon Hall Research Centre, Emerging E-Learning Technologies](#): Tools for Developing Innovative Online Training. Dr. Woodill's second report in the Emerging e-Learning Series, covers **52** categories of new and innovative **e-learning tools** and **Web resources** that can be used to expand the possibilities for producing highly engaging online learning content.

A. S. Drigas “**The Electronic Market of Public Procurement**” International Conference Interop. Athens 1/2002.

8. E-procurement in the ministry of education in Greece. UKessays The UK Expert provider of custom essays. 4/2014.

A.S.Drigas, L. Koukianakis, “**E-government application for supporting a network of distributed public administration units**”, WSEAS Transactions on Systems. Vol. 3, no. 10, pp. 3336-3340, 2004.

9. [Smithtana Chaijenkij](#), Success Factors in E-government Policy Development and Implementation: [The e-Revenue Project in Thailand](#), PhD Thesis, School of Business Information Technology and Logistics, RMIT University, 2010.
10. [Ganesh P. Sahu, Yogesh K. Dwivedi, Vishanth Weerakkody](#) (Editors), [E-Government Development and Diffusion: Inhibitors and Facilitators of Digital Democracy \(In India\)](#), Information Science Reference, Hershey, **New York**, DOI: 10.4018/978-1-60566-713-3, 2009.
11. [Suwannee Phitakwinai, Sansanee Auephanwiriyaikul, Nipon Theera-Umpon](#), **Thai Sign Language Translation Using Fuzzy C-Means and Scale Invariant Feature Transform**, ICCSA '08 Proceedings of the international conference on Computational Science and Its Applications, Part II, Springer-Verlag Berlin, Heidelberg, doi>10.1007/978-3-540-69848-7\_88, 2008.

Drigas, A. ,Vrettaros, J., and Kouremenos, D., “An e-learning management system for the deaf people”, WSEAS Transactions on Advances in Engineering Education Issue 1, Volume 2, pp. 20-24, 2005.

12. Jose Oramas M., Katherine Chiluiza G., Alejandro Moreno C., Potential benefits in the learning process of **Ecuadorian Sign Language** using a Sign Recognition System, Vol. II No. 7, ISSN: 1697-9613 (print) - 1887-3022 (online), 2011.
13. Mohamed Abu El-Soud, Samaa M. Shohieb, Web-based Accessibility E-learning Framework for the **Arab Disabled** Seventh International Conference on eLearning for Knowledge-Based Society, Special Issue of the International Journal of the Computer, the Internet and Management, Vol. 18 No. SP1, pp. 15.1-15.10, 2010.
14. Mohamed Abu El-Soud, Samaa M. Shohieb, A Proposed Web Accessibility Framework for the **Arab Disabled**, International Journal of Human Computer Interaction (IJHCI), Volume 1, Issue 3, pp. 57-70, 2010.
15. Mohammed Abo El-Soud, A.E. Hassan, M. S. Kandil, Samaa M. Shohieb, A Proposed Web Based Framework E-Learning and Dictionary System for **Deaf Arab Students**, International Journal of Electrical & Computer Sciences IJECS-IJENS Vol: 10 No: 01, Pages: 56-68, 2010.
16. Khwaldeh, S., Shah, M., The adaptability of an open source learning management system for **deaf children in Jordan**, The 2nd IEEE International Conference on Information Management and Engineering (ICIME), pp. 34-39, 2010.
17. Des Power, Mary R. Power, Communication and culture: **Signing Deaf people online in Europe**, International Journal on Technology and Disability, Vol. 21(4), pp. 127-234, 2009.
18. S. Khwaldeh, N. Matar, and Z. Hunaiti, Interactivity in Deaf Classroom Using Centralised **E-learning System in Jordan**, Faculty of Science and Technology Anglia Ruskin University, Chelmsford, UK, The 8th Annual Postgraduate Symposium The Convergence of Telecommunications, Networking and Broadcasting Liverpool John Moores University, ISBN: 1-9025-6016-7 © 2007 PGN, 2007.
19. **CIRRIE (USA Centre for International Rehabilitation Research Information & Exchange)** Data Base

A.S. Drigas, D. Kouremenos, S. Kouremenos, J. Vrettaros, “An e-Learning System for the Deaf people”, ITHET 6th Annual International Conference, Juan Dolio, Dominican Republic, Pages T1A-1 - T1A-5, 2005.

20. Jose Oramas M., Katherine Chiluiza G., Alejandro Moreno C., Potential benefits in the learning process of **Ecuadorian Sign Language** using a Sign Recognition System, Vol. II No. 7, ISSN: 1697-9613 (print) - 1887-3022 (online), 2011.

## THE LABORATORY IN NUMBERS

Records	Total	Records	Total
Seminars	34	Total Number of Published Works	265
Distinctions	41	Publications in International Journals	87
Member of Committees	40	Publications in International Conferences	52
Technical Consultant	13	Speeches, Articles in Conferences	64
R&D Projects	45	Publications in National Journals	62
Auctorial Work – Important Patents	3	Citations	257
Spin-off, Ready Products	1+7	Initiatives & E-Services Applications	17
Auctorial Work – Books	8	Participation in Exhibitions	8
Auctorial Work – CD-ROMs	27	Participation in Seminars & Conferences	130
Diffusion Articles – Interviews to the Press	147	Presentations on the Radio & the TV	60

[Comprehensive Publications List \(1\) - SCOPUS](#)

[Comprehensive Publications List \(2\) - DBLP](#)

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