UNIVERSITY OF PATRAS
SCHOOL OF ENGINEERING
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERS

CURRICULUM VITAE

Dr. Stavros A. Koubias
Professor Emeritus, Former Rector

Patras, 2022

CONTENTS

CURRICULUM VITAE

1. GENERAL INFORMATION

1.1 PERSONAL INFORMATION

Date of Birth: April 22, 1953
Place of Birth: Chios (island)
Family Status: Married, one son
Home Address: Tilou 17, 26442 Patras, Greece
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1.2 EDUCATION

Diploma of Electrical Engineering (1976)
University of Patras, School of Engineering, Department of Electrical Engineers
PhD (1982)
University of Patras, School of Engineering, Department of Electrical Engineers

1.3 EMPLOYMENT HISTORY

1.3.1 University of Patras

Professor, (2004-today)
School of Engineering, Department of Electrical and Computer Engineers
Associate Professor, (1999-2004)
School of Engineering, Department of Electrical and Computer Engineers
Assistant Professor, (1987- 1999)
School of Engineering, Department of Electrical and Computer Engineers
Lecturer (1983-1987)
School of Engineering, Department of Electrical Engineers
Research Fellow (1976-1982)
School of Engineering, Department of Electrical Engineers

1.3.2 Technological & Educational Institute (TEI) of Patras

Professor (1987-1990)
School of Technological Applications, Department of Electrical Engineers

1.3.3 Industrial Systems Institute (ISI) of Patras

Collaborating academic faculty (1998-today)

1.4 MAIN PROFESSIONAL SERVICE

1.4.1 Elected Rector of the University of Patras (2006 - 2010)

University of Patras (www.upatras.gr) which was ounded on 1964, is the 3rd University of Greece in numbers (8 schools, 37 departments, about 50.000 under graduate students, 4.000 post graduate students, 1000 members of faculty/academic staff and 1000 members of supportive scientific nad technical personel and administrative staff), marked by continuous development and constantly

emerging new achievements. University o Patras presently stands well ahead of its original goal, which was to set “a firm model of an Academic institution providing Greece with a highly qualified Alumnae contributing to the society’s development and growth”. Today, the University of Patras enjoys recognition as an Academic Institution with a worldwide impact, attracting thousands of students and a large number of Academic and Research Personnel actively involved in the cutting-of-edge Science, Innovation and Excellence.

1.4.2 Elected Head (2015 - 2020) and Deputy Head (2001 - 2003) of the Department of Electrical and Computer Engineering, School of Engineering, University of Patras

The Electrical Engineering (EE) Department (ece.upatras.gr) founded on 1967 as the first engineering department of the School of Engineering, University of Patras. The Department during its 50 years academic life made a great contribution to the creation of significant scientific and technical manpower in Greece and abroad. Today is the largest department in the School of Engineering of the University of Patras with about 2.500 undergraduate students, 200 postgraduate stydents, 50 members of faculty/academic staff, 25 members of supportive scientific, technical personel and administrative staff. The curriculum of the undergraduate studies of the ECE Department is a contemporary five-year program (10 semesters) that covers the scientific divisions of telecommunications and information technology, electrical power systems, electronics & computers, systems, automatic control and industrial informatics and leads to an engineering diploma equivalent to an integrated master’s degree.

1.4.3 Member of the University Senate

1.4.4 Elected Director of the Applied Electronics Laboratory, Department of Electrical and Computer Engineering School of Engineering, University of Patras (2008-2018)

The Applied Electronics Laboratory (APEL), founded in 1976, is one of the main laboratories in the Department of Electrical and Computer Engineering, University of Patras. The APEL staff is responsible for the courses in the area of electronics, microelectronics, microprocessor-based systems design, embedded systems, FPGAs, real-time distributed embedded systems, industrial communication networks and telecommunication electronics. A large number of Master’s degrees and PhDs have been completed or are currently in the stage of execution. The general research activities include, among others, Microelectronics, Nanoelectronics, Analogue Integrated Electronics, Communication Electronics, Tranceiver Components and Subsystems (Receiver front-end, Frequency Synthesizers and Data Synchronizers), Hardware/Software Co-Design, Advanced Microprocessor Based Architectures, Wireless Sensor and Actors Networks, Security, Cellular Communications, Real-Time Distributed Embedded Systems, Communication Protocols, Fieldbuses-Industrial Real-Time Networks, Distributed Enterprise Systems for C2B, B2B Applications (ontologies, web-services, industrial GRID etc.), Vertical/Horizontal Enterprise Integration, Internet of Things, Smart Grids, Advanced Building Networking and Management Systems, Industrial Machine Vision Systems, Dynamic Systems for Industrial/Business Excellence, Smart Grids, e-health Systems.

1.4.5 Member of the National Quality Council (NQC) for Growth (2003-2005).

The NQC was established in 2003 in order to edit issues, formulate positions/politics and advice on policy and setting targets for the quality issues in Greek industries/enterprises. The operation of the National Quality Council for the Development is supported by the General Secretariat of Industry. This council is the official technical advisor of the state in matters of Quality Management and its members represent the main stakeholders (from academia, production) related to quality issues in Greece.

1.4.6 “The Digital Leap of the University of Patras: One-Stop Electronic Services”- An Ambitious Project (2010-2015)

Prof. Koubias, during his rectorship, envisioned and attracted funding of 3 million Euros for an ambitious institutional project, entitled "The Digital Leap of the University of Patras: One-Stop Electronic Services", focused on the integrated and completed digital organization of the University of Patras. This project, under the his scientific and technical guidance, develops one-stop electronic services in the University of Patras for all the members of the academic community external operators and national bodies. This action has a strong innovative character in the field of administration, since a non-flexible fragmented, hard-to-maintain computerized system is replaced by a transparent, reliable, technology-friendly (easy-to-maintain) to support in the long run the overall (educational, research, administrative) function of a large tertiary institution, such as the University of Patras, as well as a reference solution for other fields of application.

1.4.7 Member of the **Western Greece** Region Advisory Council of Research and Innovation (2012-today)

The council provides inputs, field studies, records and assessments of existing infrastructures or available human resources and comparative assessments of regional clusters of research organizations, technology agencies, businesses, other bodies and regional authorities to promote encouraging the development of public-private partnerships and the creation of conditions and prospects for the successful participation of regional national and European research projects.

1.4.8 Member-at-Large for the AdCom (IEEE Industrial Electronics Soc) (2008-2010)

2. RESEARCH WORK

2.1 PhD Thesis

'Study and Development of Self-Adaptive Multiple Access Protocols for Local Computer Networks' (1982).

2.2 SCIENTIFIC ACTIVITY

- ✓ ***Real-Time Communication Protocols***
  - High-performance, real-time MAC protocol architectures for wired, wireless sensor networks
  - Real-time cross-layer communication protocol stack for wireless sensor networks.
  - Energy efficient routing protocols for wireless sensor networks nodes
  - Interworking architectures for the interconnection of high-speed heterogeneous communication networks.
- ✓ ***Real-Time Distributed Embedded Systems***
  - Real-Time Wireless Sensor and Actors Networks
  - Hybrid (wired/wireless) industrial networking structures (fieldbuses) and real-time control networks.
  - Security techniques in WSN structures
  - Advanced entreprise communications structures for C2V, B2B applications (Ontologies, Web-services, Industrial GRIDs, etc.) - Vertical/Horizontal Enterprise Integration
  - Advanced network interoperability architectures (system, device) for the interconnection of heterogeneous control systems (networks) and/or network devices.
  - Reliable systems for advanced distributed control applications of real-time building processes.
  - Internet of Things
- ✓ ***Advanced Industrial Control Systems***
  - Advanced industrial control applications by developing specific industrial software and hardware (networked embedded systems)
  - Machine computer vision for automatic inspection and fault classification of moving bi-dimensional surfaces in real application conditions.
- ✓ ***Design and Development of Dynamic Systems for Industrial/Business Excellence – Total Quality***
  - Total Quality, Systems Theory, Dynamic Systems
  - National Industrial/Business Excellence Model (focused on Telecommunications Systems)

3. SCIENTIFIC PUBLICATIONS AND CITATIONS

3.1 PUBLICATIONS AND CITATIONS IN SCIENTIFIC PUBLICATIONS

✓ In Scopus

Publications:
https://www.scopus.com/results/results.uri?sort=plf-f&src=s&st1=koubias&st2=&nlo=1&nlr=20&nls=&sid=97CB886600BA52D466BA76E58377FA5C.WlW7NKKC52nnQNxjqAQrlA%3a52&sot=anl&sdt=aut&sl=39&s=AU-ID%28%22Koubias%2c+Stavros+A.%22+7004306665%29&partialQuery=&txGid=0

citations:
https://www.scopus.com/cto2/main.uri?origin=resultslist&stateKey=CTOF_803185474

✓ In Google Scholar

Publications:
http://scholar.google.gr/scholar?hl=el&q=koubias&btnG= In

citations:
http://scholar.google.gr/citations?user=jfpHh_UAAAAJ&hl=el

✓ In IEEE (largest and most recognizable and prestigious association of Electrical and Electronics Engineers internationally)

Publications and citations:
http://ieeexplore.ieee.org/search/searchresult.jsp?queryText=(koubias)&sortType=desc_p_Publication_Year&matchBoolean=true&searchField=Search_All_Text

3.2 Citations (indicative) in Patents

Transfer of messages in a multiplexed system
USA PATENT OFFICE App. 09/919,725, 2007

Transfer of messages in a multiplexed system
USA PATENT OFFICE App. 08/122,934

Communication protocols in integrated systems
United States Patent 10382452

Systems and methods for application server self-service console
No. 8,843,647, USA PATENT OFFICE

Transfer of Messages in a Multiplexed System
No. RE37,494, USA PATENT OFFICE

Transfer of messages in a multiplexed system
No. RE39,454 , USA PATENT OFFICE

Access Scheme for a Data Communications Network
No. 5,267,243, USA PATENT OFFICE

Protocol for Communicating Data Between Packet Forwarding Devices Via an Intermediate Network Interconnect Device
No. 5,974,467, USA PATENT OFFICE

Method, Means and System for Communicating on A Shared Transmission Medium,
No. 6,108,344, USA PATENT OFFICE, EP 0788257 A1

Communication network
No. 6,320,871, USA PATENT OFFICE

Method and Apparatus for Controlling Communication Links Between Network Nodes to Reduce Communication Protocol Overhead Traffic,
No. 6,349,091, USA PATENT OFFICE

Method and Apparatus for Broadcasting Messages in Channel Reservation Communication Systems,
No. 6,349,210, USA PATENT OFFICE

Method and Apparatus for Transmission of Node Link Status Messages Throughout a Network with Reduced Communication Protocol Overhead Traffic,
No. 6,385,174, USA PATENT OFFICE

Multiparty conferencing and collaboration system utilizing a per-host model command, control and communication structure
No. 6,584,493, USA PATENT OFFICE

Object access mechanism that dynamically switches between multiple distributed access models
No. 6,633,922, USA PATENT OFFICE

Software, systems and methods for managing a distributed network
No. 6,671,724, USA PATENT OFFICE

Data transmitting apparatus, network interface apparatus, and data transmitting system
No. 6,711,131, USA PATENT OFFICE

Security and support for flexible conferencing topologies spanning proxies, firewalls and gateways
No. 6,850,985, USA PATENT OFFICE

Multiparty conference authentication
No. 6,851,053, USA PATENT OFFICE

Method and apparatus for communication network cluster formation and transmission of node link status messages with reduced protocol overhead traffic
No. 6,980,537, USA PATENT OFFICE

Information processing apparatus, information distribution apparatus, information processing system, network monitoring apparatus and network monitoring program
No. 7,162,516, USA PATENT OFFICE

Electronic system and method for display using a decoder and arbiter to selectively allow access to a shared memory
No. 7,321,368, USA PATENT OFFICE

Security and support for flexible conferencing topologies spanning proxies, firewalls and gateways monitoring program
No. 7,409,455, USA PATENT OFFICE

Event manager for a control management system,
No. 7,185,078, US PATENT OFFICE

Methods and systems for mobile device messaging
No. 8,112,103 US PATENT OFFICE

Systems and methods for application server self-service console
No. 8,843,647 US PATENT OFFICE

High speed multimedia data network
EP0859495, Pogue Jr., Russell Wilbur, August 1998, http://www.freepatentsonline.com/EP0859495.html

Scalable multiparty conferencing and collaboration system and method of dynamically allocating system resources
WO 2000052886 A1, US7167182, US20040221010
https://encrypted.google.com/patents/WO2000052886A1?cl=fi

3.3 BOOKS

- S. Koubias, **"Industrial Computer Networks– Protocols and Systems"**, Patras University Press, 3rd Edition, 2019
- S. Koubias etal, **"Event identification in wireless sensor networks (Book Chapter)",** Components and Services for IoT Platforms: Paving the Way for IoT Standards" (Book), 2016
- S. Koubias etal, **"Fuzzy inference systems design approaches for WSNs (Book Chapter)"**, Components and Services for IoT Platforms: Paving the Way for IoT Standards" (Book), 2016
- S. Koubias etal, **"The Intel Microprocessors 8086/8088, 80186/80188, 80286, 80386, 80486, Pentium and Pentium Pro Processor**", Official Greek Translation of the book: Brey, The Intel Microprocessors: The INTEL Microprocessors: 8086/8088, 80186/80188, 80286, 80386, 80486, Pentium, Pentium Pro Processor, 1999 (4th Edition)
- S. Koubias etal, **"Programming of the INTEL 8080-8085 microprocessors**", Patras University Press, 1984

4. PATENT

System for acquiring and surveying data following catastrophic events, with the aim of facilitating eventual aid or intervention
Kind Code: A1
Application Number: EP20030425667
Publication Date: 04/20/2005
Filing Date: 10/15/2003
Domestic Patent Reference: EP1304672

Abstract: A system for collecting and surveying data following accidental events and/or catastrophes, in particular to support eventual aid intervention, characterised in that it comprises a monitoring device and a control station, said monitoring device comprising at least one catastrophic event detecting device, at least one surveying device of surrounding environment, at least one memory unit, at least one transmission unit of said data and or and/or locating information, a central processing unit and electrical feeding means, characterised in that said monitoring device only after said catastrophic event activates itself and than transmit the surveyed data and/or memorised to said control station, and said control station comprising at least one receiving unit of said transmitted data from said monitoring device.

Inventors:
Koubias, Stravros (GR) etal

5. INSTRUCTIONAL AND ACADEMIC ACTIVITIES

5.1 COURSES TAUGHT

Prof. Koubias occasionally taught the following undergraduate and postgraduate courses:

- Industrial Computer Networks and Systems
- Distributed Real-Time Embedded Systems
- Internet of Things
- Advanced Microprocessors and Microsystems

5.2 Diploma and PhD Theses

Prof. Koubias has supervised a large number of Ph.D. and Master's diploma theses in the Department of Electrical and Computer Engineers, the Department of Computer Engineering and Informatics and the Department of Physics, mainly in the following areas:

- Analysis of MAC-sublayer protocols for standard and special LAN structures (analytical methods, simulation)
- Study and design of advanced MAC-layer and routing protocols for wireless real-time local area networks
- Development of new methods for cross-layer protocol stack design for wireless sensor networks
- Event recognition real-time algorithms based on fuzzy logic techniques for Wireless sensor and actor networks
- Security in wireless sensor networks
- Development of methods and techniques for managing power consumption of wireless sensor networks nodes
- Implementation of network nodes for industrial-type computer networks using the latest technology of the network controllers
- Industrial Computer Networks (wired, wireless) for real-time applications
- Design and development of communication software for the implementation of the MAC sublayer, Application layer and User layer (according to the OSI Reference Model)
- Design and development of advanced interoperability networking architectures (system, device) for the interconnection of heterogeneous control systems (networks) and / or network devices
- Design and development of advanced industrial communications structures C2B, B2B applications (Ontologies, Web-services, Industrial GRID, etc.)
- Development of communication systems for building automation processes
- Development of special software for network management
- Development of interoperability architectures for the interconnection of heterogeneous high-speed computer networks
- Design and implementation of advanced systems based on popular microprocessors / microcontrollers / embedded systems
- Machine-computer vision for advanced industrial applications

5.3 PARTICIPATION IN (INDICATIVE) PRESTIGEOUS INTERNATIONAL CONFERENCES

5.3.1 General Chair

1. **"2007 IEEE International Workshop on Emerging Technologies and Factory Automation (ETFA'2007)",** Patras, Greece, 25-28 Sept.2007.
2. "2009 **IEEE 9th International Symposium on Autonomous Decentralized Systems (ISADS'2009)"**, Athens, Greece, March 23-25, 2009
3. **"2012 IEEE International Conference on Industrial Technology (ICIT'2012),** Athens, March 2012

4. **"5th International Conference of Engineering Against Failure (ICEAF V, 2018)**, General Co-Chair, Chios, Greece, June 2018

5.3.2 Committee Member

5. **"IEEE International Workshop on Factory Communication Systems (WFCS 2000**)", Μέλος της Program Committee, Porto, Portugal, Sept. 6-8, 2000.
6. **"International Workshop on Assurance in Distributed Systems and Networks 2002, (ADSN02**)", Member of the Program Committee, Vienna, Austria, July 2, 2002.
7. **"International Workshop on Assurance in Distributed Systems and Networks 2003 (ADSN03**)", Member of the Program Committee, Providence, Rhode Island, USA, May 19, 2003.
8. **"2003 IEEE International Symposium on Signal Processing and Information Technology (ISSPIT03**)", Member of the Program Committee, Darmstadt, Germany, December 14-17, 2003.
9. **"2003 IEEE International Workshop on Emerging Technologies and Factory Automa**tion (**ETFA**'**2003**)", Member of the Program Committee, Lisbon, Portugal, Sept., 2003.
10. **"IEEE International Workshop on Factory Communication Systems (WFCS 2004**)", Member of the Program Committee, Vienna, Austria, 22-24 Sept. 2004.

5.3.3 Permanent Steering Committee Member

Prof. Koubias participated as a permanent Steering Committee Member of the annual International IEEE ETFA (Emerging Technologies and Factory Automation) Conferences from 2008 up to 2016.

5.4 R&D PROGRAMMES

The vast majority of the national and Europen important R&D projects, that Prof. Koubias has participated, in have been cooperation projects along with industries and enterprises, focused on design and application of powerful innovative solutions for advanced automation/control problems, based on significant scientific and research achievements, mainly based on industrial networking solutions.
Professor Koubias attracted total R&D funding of approximatily 6.200.000 (UoP) + 740.000 (ISI) Euro.

5.4.1 Indicative R&D Programmes

5.4.1.1 National Projects

1. *Programme:* **GSRT STRIDE/LIGHT Pr. 315 (national project)**
   Participants: University of Patras/Department of Electrical & Computer Engineers/ Greek Industries
   Role: Member of the Project Technical Committee
   Subject: Advanced automation methods in big Greek industries
   Result: The programme completed succesfully

2. *Programme:* **PatreasNet (national project)**
   Participants: University of Patras
   Role: Project Coordinator
   Subject: Development of the new Computer Network Center of the University of Patras
   Result: The programme completed succesfully

3. *Programme:* **ADVENT (national project)** http://www.theadventproject.eu/index.php
   Participants: Hellenic Open University, Educational Content, Methodology and Technology Laboratory (e-CoMeT), University of Patras (UoP)/Applied Electronics Laboratory (APEL), Frontida Zois, Zelitron, Besecure
   Role: UoP Team Coordinator

Subject: The main target of ADVENT is the provision of a comfortable, safe and secure environment, supporting daily living of elders, while retaining their mobility and independency. This will be achieved through advanced sensorial networking, data fusion and processing, secure information handling, and knowledge-based technologies that will be integrated in a specially designed platform, in order to facilitate the provision of a coherent set of personalized services.

Result: The programme completed succesfully

4. *Programme:* **KATHODIGOS (national project)**

Participants: University of Patras (Coordinator), Research Center Athena/ Institute of Industrial Systems, ALGOSYSTEMS S.A., Municipal Development Company of Patras S.A., Data and Control Systems Ltd.

Role: Project Coordinator

Subject: City Parking Guide is an ITS application developed by a R&D consortium of Greek academia, industry and public authorities. It uses wireless sensor networks and web technology in order to monitor, control and manage roadside parking in large cities.The system uses the capabilities offered by distributed collaborative wireless sensor nodes for detecting free parking spaces along road axes and monitoring their use in the context of a parking service with or without fees. Thus, the parking administrator is provided with real-time information regarding the availability of parking spaces in the controlled area and can accordingly inform drivers looking to park their cars. The information can be sent to road screens or can be accessed through a proper mobile application. The system can guide the driver to a free place, monitor the time that the place is used (paid or managed otherwise) and inform the manager or the driver for time limit violations. The system combines information from wired sensor networks (traffic cameras) interrelating traffic in adjacent roads with parking demand. System data can support decision taking processes and the redesign of the management of local parking spaces in a rational and safe manner.

Result: The programme completed succesfully

5.4.1.2 European Projects

5. *Programme:* **IST R-FIELDBUS (11316)** http://www.hurray.isep.ipp.pt/rfieldbus/

Participants: ISI, SIEMENS, IFAK, SOFTING, ST2E, ISEP, LPC

Role: ISI Technical Coordinator

Subject: The R-Fieldbus project aims the development of an innovative high-performance radio Fieldbus. Such radio fieldbus architecture will ease the resolution of problems found in manufacturing plants, such as the need for re-cabling or the need to install new, and probably moving, sensors and control units. The R-Fieldbus system must provide full transparent access to any information needed on site, such as data concerning real-time control and status information, or transparent to specification drawings and other industrial-type multimedia information (real-time voice and low-resolution digital video sequences). The R-Fieldbus architecture will be based on the integration of existent industrial communication protocols such as those specified in the European standard EN50170.

Result: The programme completed succesfully

6. *Programme:* **IST LOCCATEC (29401)** https://www.iessolutions.eu/en/projects/eu-project-security/projects-loccatec/

Participants: TCI, JRC-ISIS, ISI, CEA, ZENON, NOEMON, UNIVERSITA DELLA CALABRIA

Role: WP Leader

Subject: Development of an autonomous device for monitoring, storing and transmission of seismic data (rescue of trapped people)
Result: The programme completed succesfully

7. *Programme:* **IST 6-HOP (IST-2001-37385)** http://www.cwc.oulu.fi/projects/6hop/index.html
Participants: INTRACOM, Univ. of Oulu, Philips (Italy), Allianve Qualite Logiciel, Univ. of Cantabria, ISI
Role: ISI Technical Coordinator
Subject: Development of protocols for heterogeneous wireless multi-hop IPv6 networks. 6HOP studies how multi-hop heterogeneous wireless IPv6 networks can support mobility of users, packet routing and adaptation to varying link conditions. 6HOP aims to research and demonstrate a heterogeneous wireless IPv6 network consisting of several different wireless technologies. End-to-end optimization for IPv6 based services over multi-hop heterogeneous wireless network with respect to throughput, power consumption and implementation complexity will be provided. The results from previous IST project WINE using a platform independent wireless adaptation layer will be exploited, streamlined and extended.
Result: The programme completed succesfully

8. *Programme:* **IST PAPADIS' PROMISE (FP6-IST-016649)** www.pabadis-promise.org/
Participants: SAP AG, Siemens AG, Austrian Academy of Sciences, Identec Solutions AG, Politecnico di Milano, Machining Centers Manufacturing S.p.A., CR Fiat, Business Information Technologies, ARMINES Ecole des Mines d'Ales, Defi Systemes, ISI, ACE Advanced Concepts Enterprises S.A.
Role: ISI Scientific Coordinator
Subject: Future manufacturing will require high flexibility/adaptability and speed with respect to organization of production and supply-chain management and require an increasing amount of services and inter-company collaboration. The PABADIS'PROMISE project extends the idea of distributed control to an innovative architecture which incorporates both resource and product. With the project's new paradigm "The Order is the Application" which stipulates a correspondingly innovative control and networking architecture across all levels, PABADIS'PROMISE will combine European and international forces to provide this architecture allowing European companies to cope with the mentioned future needs.
Result: The programme completed succesfully

9. *Programme:* **IST INTERMEDIA Network of Excellence(IST-2006-38419)**
Participants: LANCASTER UNIVERSITY, INTRACOM S.A. HELLENIC TELECOMMUNICATIONS AND ELECTRONICS INDUSTRY, FRAUENHOFER GESELSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V., CARLETON UNIVERSITY, REINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN, TELEFONICA INVESTIGACION Y DESARROLLO SA UNIPERSONAL, UNIVERSITA DEGLI STUDI DI GENOVA, INFORMATION AND COMMUNICATIONS UNIVERSITY, UNIVERSITE DE GENEVE, KURATORIUM OFFIS E.V. , INDUSTRIAL SYSTEMS INSTITUTE (ISI) etc.
Role: Senior Researcher
Subject: Interactive media using personal networked devices
Result: The programme completed succesfully

10. *Programme:* **ARTEMIS WSN DPCM (ART Call 2010 269389)** www.wsn-dpcm.eu
Participants: Ingeniería de Sistemas Intensivos en Software S.L Spain , Metodos y Tecnologia de Sistemas y Procesos Spain , Universidad Politécnica, Madrid Spain, Baltec CNC

Technologies Lithuania, INTECS S.p.A Italy, Minteos s.r.l. Italy, Politecnico di Torino Italy, Universita di Napoli Federico II Italy, Industrial Systems Institute Greece, University Of Patras (UoP) Applied Electronics Laboratory Greece

Role: UoP Team Coordinator

Subject: WSN-DPCM is a cooperation project of several technical universities and companies from Spain, Italy, Lithuania and Greece. The project is funded by the ARTEMIS Joint Undertaking (the European technology platform representing the field of advanced research and technology for embedded intelligence and systems), national authorities and European partner companies. WSN-DPCM will address large-scale application of Wireless Sensor Networks (WSN) by developing an integrated platform for smart environments comprising a middleware for heterogeneous wireless technologies, an integrated engineering tool for quick system development, a planning tool and a commissioning & maintenance tool. Two demonstrators will be built to evaluate the impact of the middleware and tools.

Result: The programme is in progress

11. *Programme:* **FORSEE (INTERREG)** http://www.forsee.eu/

Participants: University of Patras, Applied Electronics Laboratory (UoP-ApEL), Greece, University of Macedonia Greece, Industrial Systems Institute/RC Athena (ISI), Research Committee (UOM), Greece, National Institute for Research and Development in Informatics (ICI), Romania, Ministry of Education, Youth and Science (MOMH), Bulgaria, Centre for Social Innovation (ZSI), Austria, Ministry of Education, Science, Culture and Sports (MIZKS) /former Ministry of Higher Education, Science and Technology/, Slovenia, University of Ljubljana (UL), Faculty of Economics, Slovenia, Bulgarian Association of Software Companies (BASSCOM), Bulgaria, General Secretariat for Research and Technology (GSRT), Greece, Institute for Sociology, Center for Social Sciences, Hungarian Academy of Sciences (IS CSS HAS), Hungary, "Mihajlo Pupin" Institute (MPI), Serbia, Ministry of Science and Technological Development (MSTD), Serbia, University of Montenegro (UoME), Montenegro

Role: Project Coordinator

Subject: The 'FORSEE - Regional ICT Foresight exercise for Southeast European countries' project targets ICT RTD policy reform in the South-eastern Europe (SEE) region, proposing a focused effort on introducing a Foresight culture in the region, which is necessary in order to accelerate socioeconomic growth in participating countries', striving to meet the challenges of the global networked economy and to participate on equal footing in the European Research Area. The FORSEE initiative aims to introduce a sustainable mechanism for ICT Foresight in the region, attempting to tackle the absence of a regular process applied for technological future orientation and research policy review

Result: The programme completed succesfully

12. *Programme:* **I3E (INTERREG)** http://www.i3e.eu/

Participants: ISI (Lead Partner), OEAW, ECOPLUS, BICT, ARIES, UOM, JSI, RDF-RWG, IEA, TUS, UOK, ONPU, TUCN, FNBU, UOP

Role: UoP (APEL) Team Coordinator

Subject: I3E project is a project funded under the South East Europe (SEE) initiative with an aim to help towards the transformation of the SEE area into a knowledge-based innovation-driven economy. The project places emphasis on two leading edge knowledge-intensive and export-oriented technology sectors that may create a competitive advantage for the area, namely industrial informatics and embedded

systems. The main project outcomes include a Strategic Research Agenda in the aforementioned sectors making possible the alignment of research efforts in the area and a Methodology Guide on Innovation stemming from best practices relevant to the transformation of research into innovation. The project will seek the active involvement of all associated stakeholders in the participating countries as well as the building of consensus with reference to its major outcomes.

Result: The programme completed succesfully

5.4.2 Indicative European Educational Programs

13. *Programme:* **COMETT PROGRAM (C.I.M. PLANET) AUEF LORRAINE**
    Participants: Tertiary European Institutions (UK, France, Spain, Luxemburg, Portugal, Greece)
    Role: Scientific Coordinator for the Greek Institutions – Member of the Steering Committee
    Subject: Production of educational tool in the field of "Computer Integrated Manufacturing (C.I.M.).
    Result: The programme completed succesfully

14. *Programme :* **COMETT PROGRAME**
    Participants: Tertiary European Institutions and Enterprises
    Role: Scientific Coordinator for the Greek Institutions – Member of the Steering Committee
    Subject: Organization of the International Educational Workshop in the field of "Applications of Microcomputer Systems and Robotics in Industry"
    Result: The programme completed succesfully

15. *Programme:* **Community Action in Science and Technology with Central and Eastern Europe**
    Participants: Commission of the European Communities (DGXIII-F-5), University of Patras, Bulgarian Academy of Sciences
    Role: Scientific Coordinator
    Subject: Scholarship (No.5881) for Dr. L. MANASIEV, member of the Bulgarian Academy of Sciences

16. *Programme:* **European Commission, Directorate-General for Education and Culture**
    Participants: University of Patras, University of Montenegro
    Role: Scientific Coordinator
    Subject: University cooperation through a scholarship for Dr. L. MANASIEV Assistant Professor, University of Montenegro
    Result: The programme completed succesfully

17. *Programme:* **European Commission, Directorate-General for Education and Culture (**CD JEP_40017_2005)
    Participants: University of West Bohemia, Pilzen, CZ, University of Novi Sad, Faculty of Engineering, CS, University of Montenegro, EMI, Podgorica, CS, University of Patras
    Role: Grand holder
    Subject: Development of a new curriculum in the field of Applied Electronics for the University of Montenegro
    Result: The programme completed succesfully

6. OTHER SELECTIVE SCIENTIFIC AND ACADEMIC ACTIVITIES

- IEEE Senior Member
- Guest Editor and Reviewer in several prestigious journals and international conferences, like:
  - ✓ IEEE Transactions on Communications
  - ✓ IEEE Transactions on Industrial Informatics
  - ✓ IEEE Transactions on Industrial Electronics
  - ✓ IEE Proceedings on Computers and Digital Techniques
  - ✓ IEE Proceedings on Communications
  - ✓ IEE Electronics Letters
  - ✓ ACM Transactions on Embedded Computing Systems
  - ✓ Computers in Industry
  - ✓ International Journal of Engineering
  - ✓ International Journal of Distributed Sensor Networks, Hindawi Publishing Corporation (Lead Guest Editor)
  - ✓ Sensors, MDPI (Multidisciplinary Digital Publishing Institute)
    - (Lead Guest Editor)
  - ✓ International Workshop on Factory Communication Systems
  - ✓ IEEE International Workshop on Emerging Technologies and Factory Automation
  - ✓ International Workshop on Assurance in Distributed Systems and Networks
  - ✓ IEEE International Symposium on Signal Processing and Information Technology
  - ✓ IEEE International Conference on Electronics, Circuits and Systems
  - ✓ IEEE Mediterranean Electrotechnical Conference
  - ✓ Operational Research
- Invited reviewer for the Austrian National R&D Program "FIT-IT Embedded Systems" (2002).
- Member of the WORKING PARTY 17 of the IRDAC (Industrial Research and Development Advisory Committee of the European Commission), Brussels, 1994.