

## Curriculum Vitae

### CONSTANTINOS PETROU CONSTANTINOU

**Home Address** 14 Grevenon Str., CY 2110, Nicosia. Tel: +35722459637.  
**Work Address** Department of Education, University of Cyprus, P. O. Box 20537,  
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E-mail: c.p.constantinou@ucy.ac.cy

### Education

- 1988-1992 Ph.D. (Physics); Supervisor: Dr. M. M. Chaudhri.  
Cavendish Laboratory and Corpus Christi College, Cambridge University.
- 1992 Thesis: 'The nitromethane - amine interaction.'  
A charge transfer complex was detected for the first time in this system and characterised using mainly uv/visible/nir and Raman, but also infra-red, nmr and mass spectroscopy. Its presence in both aliphatic and aromatic nitrocompound - amine mixtures was shown to account for the increased reactivity of these systems, as demonstrated with differential scanning calorimetry in my work, but also with a range of other methods in the literature.
- 1991 M.A. (Natural Sciences)  
Corpus Christi College, University of Cambridge.
- 1985-1988 B.A. (Natural Sciences).  
Corpus Christi College, University of Cambridge.
- 1986 Part IA: Chemistry, Physics, Mathematics, Crystallography.  
1987 Part IB: Physics, Mathematics.  
1988 Part II: Physics and Theoretical Physics.
- 1977-1984 The English School, Nicosia, Cyprus.

### Awards

- 2004 The teachers' resource *Science Education in the Kindergarten*, has been selected as the only example of successful educational practice throughout Europe, on Mathematics, Science or Technology Education for the early childhood. DG Education and Culture, European Commission.
- 1995-1996 Centre of Excellence Merit Fellow, National Institute of Research in Inorganic Materials, University of Tokyo, Japan.
- 1991-1992 Corpus Christi College Research Studentship.  
1991 Cambridge Philosophical Society Fellowship.  
1990 Cambridge Commonwealth Trust Fellowship.
- 1988-1991 The Cavendish Laboratory, Cambridge University Research Grant.  
1985-1988 Commonwealth Scholarship.  
1985 Fulbright Scholarship.
- 1980-1984 The Duke of Edinburgh's Award Scheme, Bronze, Silver and Gold Awards.
- 1982-1984 The English School Greek Society Scholarship.  
1977-1984 The English School Scholarship.

## Work Experience

- 2004 Associate Professor in Science Education, University of Cyprus.
- 1998-2004 Assistant Professor in Science Education, University of Cyprus.
- Summers 99-01 Visiting Assistant Professor, Physics Education Group, Department of Physics, University of Washington.
- 1998 Visiting Assistant Professor, Physics Education Group, Department of Physics, University of Washington.
- 1994-1998 Lecturer in Science Education, University of Cyprus.
- 1992-1994 Postdoctoral Research Associate, Department of Physics, Washington State University.  
My field of work was Molecular Physics. Specifically, I carried out optical and spectroscopic measurements on shocked materials. I was involved in projects on the study of shock-induced chemical reactions in nitromethane and nitromethane-amine mixtures, the development of an optical pressure sensor and the optical response of sapphire, ruby and quartz to dynamic loading. We routinely employed fast time-resolved spectroscopic techniques to probe materials under shock loading. I had one doctoral student working with me.
- 1988-1992 Collaborative Research with industry, especially the Safety Laboratory of CIBA-GEIGY in Macclesfield, but also Smith Associates in Guildford, Cryogenic Consultants and Oxford Instruments in Cambridge, RSSL in Reading, Cambridge Polymer Consultants in Royston, Technology Partnership in Sawston.
- 1988-1991 Supervised IA and IB Physics students at Corpus Christi College, University of Cambridge: Thermal Physics, Optics.
- 1988-1991 Laboratory Assistant at Cavendish Laboratory, University of Cambridge: IA General Physics, IB Electronics, IB Optics, II Fortran Programming.
- 1990-1991 Reviewed scientific software for the Apple Macintosh prior to release, for example 'Regression' by Blackwell Scientific Publications, Oxford.
- 1988-1992 Head of Physics, Educational Consultant and Counsellor for Overseas Students, Cambridge Seminars, Tutorial College, Cambridge.  
I organized all the teaching in Physics but I also taught Electronics, Computer Science, Mathematics, Statistics, and Chemistry to A-level. I was further involved in offering educational and career advice to our students.
- 1989-1992 Examiner in Physics, University of Cambridge local examinations syndicate.
- 1989-1992 Local Supervisor, Practical Physics examination, University of London and AEB examination boards.
- 1989-1992 Local Representative in Physics and Mathematics, Personal Tutors.
- Summer 1988 Research Assistant, Cavendish Physics Laboratory, Cambridge.

### **Editorial and Review Boards**

1. Member of the Editorial Board, Advances in Learning and Instruction book series, Elsevier Publications
2. Member of the Editorial Board, International Journal of Science Education.
3. Member of the Editorial Board, Educational Research Review.
4. Reviewer, Learning and Instruction.
5. Member of the Editorial Board, International Journal of Educational Research.
6. Member of the Advisory Board, Encyclopedia of Science Education, Springer Publishers.
7. Managing Editor, Electronic Journal of Science Education
8. Member of the Editorial Board, International Journal of Continuing Education and Lifelong Learning.
9. Member of the Editorial Board, International Journal of Field Studies.
10. Member of the International Advisory Board, Journal of Maltese Education Research.
11. Member of the Editorial Board, International Journal of Engineering Education-Theory and Practice, ISSN 1609-2902
12. Member of the Editorial Board of the online Newsletter on e-Learning Design Patterns <[http://cosy.ted.unipi.gr/elen\\_dp\\_newsletter/](http://cosy.ted.unipi.gr/elen_dp_newsletter/)>
13. Member of the Scientific Committee, Special Issue of Educational Sciences (in Greek) on Lifelong and Distance Learning in the Information Society.
14. Member of the International Scientific Committee, Pliroforiki, The Journal of the Cyprus Computer Society.
15. Member of the Review Board, School Science and Mathematics
16. Reviewer, Advances in Learning and Instruction.
17. Reviewer, Educational Research and Evaluation.
18. EARLI International Scientific Committee for Outstanding Publication Award, 2007
19. Guest Editor of a special issue of the International Journal of Continuing Education and Lifelong Learning on *The role of Information and Communication Technology in Science Teaching and Learning*.
20. Guest Editor of the special issue of the Mediterranean Journal of Educational Studies on *Learning in Science in the Mediterranean Region*.

### **Funded Research Programs and International Collaborations**

1. PriSciNet: Networking Primary Science Educators as a means to provide training and professional development in inquiry based teaching, 2011- 2014. Funded by the European Commission, DG Research, FP7 Science in Society Program. Contract Number: SIS-2010-2.2.1.1-CSA-266647.
2. ΠΛΕΓΜΑ: Design, evaluation and research validation of an integrated framework for mathematics and science literacy in early childhood education, 2011-2014. Funded by the Cyprus Research Promotion Foundation, Contract Number: ΑΝΘΡΩΠΙΣΤΙΚΕΣ/ΠΑΙΔΙ/0609(BE)/14.
3. ENGINO-SOLAR: Design and development of construction models for teaching alternative energy sources. 2010-2013. Funded by the Cyprus Research Promotion Foundation, Contract Number: ΕΠΙΧΕΙΡΗΣΕΙΣ/ΠΡΟΙΟΝ/0609/82.
4. SECURE: Science Education Curriculum Research. 2010-2012. Funded by the European Commission, DG Research, FP7 Science in Society Program. Contract Number: 217792. SiS-2010-2.2.3.1-266640.
5. S-TEAM: Science Teacher Education Advanced Methods, 2009-2012. Funded by the European Commission, DG Research, FP7 Science in Society Program. Contract Number: SIS-CT-2009-234870.

6. ICTforIST: Information and Communication Technology for Innovative Science Teachers, 2009-2011. Funded by the European Commission, Lifelong Learning Programme, Contract Number: 2009-1-PL1-LEO05-05046.
7. eArgumentation: A web based learning environment for promoting students' argumentation skills and epistemological understanding across scientific and social domains, 2008-2011. Funded by the Cyprus Research Promotion Foundation, Contract Number: ΔΙΔΑΚΤΩΡ/ΔΙΣΕΚ/0308/43.
8. Virtual-Labs: Development of a Framework for Optimal Combinations of Virtual and Physical Manipulatives in Science Experimentation, 2008-2010. Funded by the Cyprus Research Promotion Foundation, Contract Number: ΑΝΘΡΩΠΙΣΤΙΚΕΣ/ΠΑΙΔΙ/0308(BE).
9. ΣΧΕΔΙΑ: In-service teacher training in the design of web-based environments for inquiry-oriented learning and investigation of their classroom implementations, 2009 – 2012. Funded by the Cyprus Research Promotion Foundation, Contract Number: ΠΙΕΝΕΚ/KINHT/0308
10. EDU-COMIC: Using Web Comics in Education, 2008-2010, Funded by the European Commission (Comenius LifeLong learning programme), Contract Number: 142424-2008-GR-COMENIUS-CMP.
11. Co-Reflect: Digital support for Inquiry, Collaboration and Reflection on Socio-Scientific Debates, 2008-2011. Funded by the European Commission (FP7 *Science in Society* program), Contract Number: 217792.
12. Materials Science: University-school partnerships for the design and implementation of research-based ICT-enhanced modules on Material Properties, 2007-2010. Funded by the European Commission, DG Research, Science and Society Program, Contract Number: SAS6-CT-2006-042942-Material Science.
13. HANDLEARN: The use of handheld computers in the teaching of science, 2006-2008. Funded by the Cyprus Research Promotion Foundation: Contract Number: ΚΟΙΝΩ/0506/07.
14. TECHNOSKEPSI: The development of argumentation skills through an ICT enhanced learning environment on topical environmental issues, 2006-2008. Funded by the Cyprus Research Promotion Foundation: Contract Number: ΕΝΙΣΧ/0506/05.
15. METAGNOSE: Collection, participative processing and distribution of knowledge through tagging of information with keywords and metadata, 2006-2008, Funded by the Cyprus Research Promotion Foundation: Contract Number: ΠΛΥΠΗ/0506/12.
16. SYNERGASIA: Collaborative Inquiry Learning Environments, 2007-2010. Funded by the Cyprus Research Promotion Foundation, Contract Number: ΠΑΗΡΟ/0506/21.
17. DIDASKO: Promoting Student Inquiry in Kindergarten & Elementary Science - Developing a methodology for analyzing authentic science lessons to support teacher professional development, 2006-2008. Funded by the Cyprus Research Promotion Foundation, Contract Number: ΕΝΙΣΧ/0505/44.
18. PROASTY: The responsibility of Environmental Education for the sustainable development in the suburban area of Larnaca through the implementation of Local Agenda 21, 2006-2007. Funded by the Cyprus Research Promotion Foundation, Contract Number: 3411-12056.
19. AESTIT: Affordable & Efficient Science Teacher In-service Training, 2006-2008. Funded by the European Commission. Contract Number: 226381-CP-1-2005-1-GR-COMENIUS-C21.
20. OUTlab: Heritage as an outdoor laboratory for innovative science teacher education, 2005-2009. Funded by the European Commission, Contract Number: 226646-CP1-2005-1-IE-Comenius-C21
21. EPIKOITE: Science, Society and Technology: A learning environment for the development of epistemological awareness for the Nature of Science, 2005-2007. Funded by the Cyprus Research Promotion Foundation: ΕΝΙΣΧ/0504/15

22. OIKOS: Originating Innovative methods to learn and teach Knowledge in the field of earth and natural sciences derived from an Original and combined use of applicative Software, 2004-2007. Funded by the European Commission, Leonardo da Vinci project. Contract Number: 2004-I/04/B/F/PP-154025.
23. Reflective Inquiry: Designing web-based learning environments to support middle school students' reflective inquiry of complex scientific problems, 2005-2007. Funded by the European Commission, Marie Curie Program, Contract Number: MIRG-CT-017515.
24. STOCHASMOS: Reflective scaffolding of self-regulated inquiry of web-based scientific data, 2005-2007. Funded by the Cyprus Research Promotion Foundation: Contract Number: KINHT/0504/03
25. DEMIOURGIA: Programming and Robotics at the Elementary School, 2003-2005. Funded by the Cyprus Research Promotion Foundation: Contract Number: ENISX/0603/09.
26. ALYKE: Ένα μαθησιακό περιβάλλον για καλλιέργεια των δεξιοτήτων διερεύνησης πεδίου και μοντελοποίησης φαινομένων μέσα από τη μελέτη των αλυκών της Κύπρου, 2005-2007. Funded by the Cyprus Research Promotion Foundation: Contract Number: 3411-12047.
27. MATHWRITE: Creation and experimental application of math multimedia software based on handwriting recognition. Funded by the European Commission (Directorate General for EduCulture, Socrates/ MINERVA action), 2004-2006, Contract Number: 116920-CP-I-2004-I-GR-MINERVA-M.
28. OIKOSKEPSE: The use of *Stagecast Creator* for developing systemic thinking and decision making skills in the context of instances of ecological disturbance, 2004-2005. Funded by the Cyprus Research Promotion Foundation, Young Researchers' Program. Contract Number: ENTAE/0603/06.
29. ENGINO: Design and development of specialized construction connectors for Design and Technology and an investigation of their educational potential for science and technology teaching, 2005-2007. Funded by the Cyprus Research Promotion Foundation, Innovative Products Program. Contract Number: NEIPO/1204/17.
30. DIAL-Connect: Using Dialogue to Connect Learning Minds, 2004-2007. Funded by the European Commission, Contract Number: 118155-CP-1-2004-1-UK-COMENIUS-C21
31. ITforUS: Information Technology for Understanding Science, 2004-2007. Funded by the European Commission, Contract Number: 119001-CP-1-2004-1-PL-COMENIUS-C21.
32. BIOPAIDEIA: Biodiversity education concepts and values: initial education and professional readiness of primary school teachers (2004-2006). Funded by the Cyprus Research Promotion Foundation, Thematic Priorities Program, 2004. Contract Number: KOINΩ/0104.
33. EUROSCENE: European Science Education Network, 2003-2004: Funded by the European Commission as a Specific Support Action within the ERANET program, Contract Number: ERAS-CT-2003-510213
34. Hands-on-Science, 2003-2006: Funded by the European Commission within the SOCRATES/Comenius program, Contract Number: 110157-CP-1-2003-1-PT-COMENIUS-C3.
35. ePhys: Adaptation of the elearning platform LEARNING SPACE™ for supporting teachers. A pilot program of research and development in the context of the science school practicum of the Elementary Education Program. Funded by the University of Cyprus Research Committee, 2003.
36. EKTEMA: Energy, Society and Technology: a learning environment for developing systemic thinking and decision making skills with the use of webquests (2003-2005): Funded by the Cyprus Research Promotion Foundation, Young Researchers' Program 2003-2005. Construct Number: ΠΙΕΝΕΚ/ΠΙ20/2002.

37. HEROdOTNET: the Thematic Network on Geography Education, Member of the Steering Committee, 2002-2005. Funded by the European Commission within the SOCRATES program, Contract Number: 103700-CP-1-2002-1-UK-ERASMUS-TN.
38. ODISEAME: Open Distance Inter-university Synergies between Europe, Africa and the Middle East (2002-2005): Funded by the European Commission within the EUMEDIS program, Contract Number: EUMEDIS B7-4100/2000/2165-79 P546.  
(with partners from The University of Salamanca, The University of Valladolid, CEDELTEL, Algerian Institut Supérieur de Gestion et de Planification, Moroccan Institut Agronomique et Vétérinaire Hasan II, The Hebrew University of Jerusalem, The Jordan University of Science and Technology, The University of Jordan, The University of Malta, The Islamic University of Gaza, FHTW, Retecal Interactiva SA, Cairo University, Anadolu University, Frederick Institute of Technology).
39. Marine Ecosystems in Cyprus: a learning environment for developing investigative skills through webquests and field studies (2002-2006): Funded by the Cyprus Research Promotion Foundation. Contract Number: 83./5oΠE-20.
40. EMPEE: European Masters Program in Environmental Education, EU Socrates, 2002-2005. Contract Number: 74922-IC-1-2001-1-MT-ERASMUS-PROG-2  
(with partners from the University of Malta, Malta; Manchester Metropolitan University, U.K.; University of Liege, Belgium; Akershus University College, Norway; Kibbutzim College of Education, Israel; Wageningen University, Netherlands; University of Latvia, Latvia; Uniwersytet Jagiellonski, Poland.)
41. Science Teacher Education in a Developing Europe, The European Science Education Research Association Thematic Network, Member, 2001 – 2004. Contract Number: 10082-CP-2-2001-1-BE-ERASMUS-TN
42. Physics Teacher Education Beyond 2000, High – Level Scientific Conferences (2000-2001), 5<sup>th</sup> Framework, European Union Human Potential Programme, Contract No. HPCFCT-1999-00238.
43. Innovative mechanisms for in-service teacher training of elementary and middle school science teachers (2000-2002)  
(with partners from the Cyprus Conservation Foundation, the Environmental Studies Center and the Ministry of Education and Culture). The project is funded by UNOPS.
44. Physics by Inquiry: A video resource, 1999-2000.  
(with WGBH Educational Foundation, Boston and The Physics Education Group, University of Washington)  
The project is funded by the United States National Science Foundation.
45. Science Journeys in the Information Society, 1998-2001.  
(with partners from the University of Cyprus, Cairo University, The Royal Scientific Society, the National Technical University of Athens, the Universidad de Castilla and Infogroup S.A.). The project is funded by the INCO program of the European Union (INCO DC Project No. 973324). Also funded by: Ministry of Education and Culture, Nicosia, Cyprus.  
Cyprus Broadcasting Corporation  
Cyprus Telecommunications Authority  
Press and Information Office, Nicosia, Cyprus.
46. Electronic Roads in the Information Society, 1997-2000.  
(with P. Kommers, Twente University; S. Kollias, NTUA, Athens; F. Arbab, CWI, Amsterdam; C. Nikias, University of Southern California; G. Orange, Leeds Metropolitan University; S. Sartzetakis, FORTH HELLAS; A. Kakas, Chr. Shizas, G. Papadopoulos, C. Pattichis, A. Pitsillides, Department of Computer Science and S. Katsikides, Department of Social and Political Studies, University of Cyprus)  
The programme is funded by the University of Cyprus.  
Also funded by: Ministry of Education and Culture, Nicosia, Cyprus.  
Cyprus Broadcasting Corporation

Cyprus Telecommunications Authority  
Press and Information Office, Nicosia, Cyprus.  
Ministry of Foreign Affairs, Nicosia, Cyprus.

47. Distance Learning: On-line Training and Support for In-service Teachers of Primary Schools through a Computer Network, 1995 - 1997.  
(with G. Philippou, C. Christou, University of Cyprus and P. G. Michaelides, University of Crete)  
Funded by: Office of Planning, Nicosia, Cyprus.  
Research and Technology Secretariat, Athens, Greece.  
Ministry of Education and Culture, Nicosia, Cyprus.  
Logos Network, Nicosia, Cyprus.  
Rainbow Computers, Athens, Greece.
48. Physical Science and Physical Education: An Inter-Disciplinary Approach.  
(with N. Tsagaridou, University of Cyprus)  
Funded by: The University of Cyprus, 1995-1996.
49. Children's Perceptions of Technology  
Funded by: British Petroleum Corporation, 1995-1997.
50. The role of Creativity in Science Education  
(with I. Diakidoy, University of Cyprus),  
Funded by: The University of Cyprus, 1995-1996.

### **Research Interests**

Curriculum reform in Higher Education Physics.

Research Based Science Curriculum Design for Pre-school, Elementary and Secondary School.

All aspects of the use of high technology in science education with emphasis on cognitive tools and interactive and multimedia communications.

The creative activity in science.

The integrated approach to teaching and learning.

Modeling as a means of constructing knowledge and understanding in science.

### **Supervision of Graduate Studies**

1. I supervised the following PhD theses which have been completed:  
N. Papadouris (2009)  
Combined development of student understanding of energy processes and decision making with inputs from the nature of science  
Chr. Nicolaou (2010)  
Learning Environments for Collaborative Modeling
2. I am currently supervising the PhD Theses of another five students:  
Marios Papaevripidou  
Rodothea Hadjilouka  
Kyriake Constantinide  
Niki Kalyfommatou  
Michael Michael
3. I have supervised the Masters Thesis of more than twenty-five students in Science Learning, which have been completed.
4. Local Ph.D. Supervisor, University of Loughborough (2005-to date), City University (1997-2002), University of North London. (1996-2000)
5. Local M.Ed. (Science Education) Supervisor, University of Sheffield (1998-2002).
6. External PhD Examiner: University of Udine, Italy (2008); Autonomous University of Barcelona (2009)

7. Member of the Supervisory Committee for PhD Thesis, Department of Physics, University of Athens: Christos Papanicolaou *Identifying and Addressing Conceptual and Reasoning Difficulties in Electronics* (2009-2012).

## **Teaching**

### ***University of Washington***

- PHYS 211 Physics by Inquiry for Middle School Pre-service Teachers (Dynamics; Astronomy by Sight)
- PHYS 212 Physics by Inquiry for Middle School Pre-service Teachers (Light and Optics; Waves)
- PHYS 408 Physics by Inquiry for High School Pre-service Teachers (Dynamics; Astronomy by Sight)
- PHYS 409 Physics by Inquiry for High School Pre-service Teachers (Light and Optics; Waves)
- PHYS 412 Continuation Class in Physics by Inquiry for in-service Teachers (Electric Circuits; Magnets)
- PHYS 415 Summer Institute in Physics by Inquiry for in-service Elementary Teachers (Properties of Matter; Light and Color; Astronomy by Sight)
- PHYS 417 Summer Institute in Physics by Inquiry for in-service Middle and High School Teachers (Kinematics; Light and Color; Astronomy by Sight)

### ***University of Cyprus***

- EDU 175 Physical Science Concepts in the Kindergarten
- EDU 176 Science Education in the Primary School: Environment and Living Processes
- EDU 238 Design and Technology in the Primary School
- EDU 276 Science Education in the Primary School: Physical and Chemical Phenomena and Mechanisms
- EDU 335 Science Teaching Methods in the Kindergarten
- EDU 336 Science Teaching Methods in the Primary School
- EDU 476 New Trends in Science Education
- EDU 477 Information Technology in Science Education
- EDU 490 Research Dissertation
- EDU 652 The process of inquiry in natural sciences
- EDU 653 Cognitive constraints in learning natural sciences: Diagnosis and teaching interventions
- EDU 660 Design, development, and evaluation of curricula.
- EDU 664 Integrated curricula in natural sciences
- EDU 665 Environmental education.
- EDU 667 Development of scientific reasoning: Cognitive and teaching approaches

I have supervised fifteen undergraduate students in optional final year research dissertations in science. I have also supervised teaching assistants who have taught other subjects such as Educational Technology, Geography, Design and Technology and I have been engaged in all phases of the school practicum.

### ***Washington State University***

- PHYS 563 The Physics of Shock Waves



## **Service to the Scientific Community**

Member of the Executive Board, European Science Education Research Association (ESERA), 2007-2011

Secretary / Treasurer, European Association for Research in Learning and Instruction (EARLI), 2007-2011

Founding Member, European Association for Practitioner Research on Improving Learning, EAPRIL, 2008

Member of the Board, Physics Education Division, European Physical Society, 2009-2011.

Member of the EARLI Publication Award Committee, 2005, 2007, 2009

## **Professional Membership**

European Science Education Research Association  
American Physical Society  
APS Forum on Education  
The Institute of Physics  
European Physical Society  
American Chemical Society  
American Association of Physics Teachers  
The Association for Science Education  
European Association for Research on Learning and Instruction (EARLI)  
(National Correspondent, 1998 to date)  
European Educational Research Association  
American Educational Research Association (AERA)  
School Science and Mathematics  
National Science Teachers Association  
The Association for the Education of Teachers in Science  
The National Association of Research in Science Teaching

## **Service to the University, Society, Scientific Community**

### **Consulting**

1. Member of the Evaluation Group for the Mid Term Assessment of the Science and Society Program, FP6, DG Research, European Commission, 2006-2007.
2. Member of a commission of the American Physical Society to advise on availability and structure of University Physics programs and explore possibilities for future development of Physics Education Research in South Africa, November 2005. With funding from UNESCO, the International Union of Pure and Applied Physics (IUPAP), The Abdus Salam International Center for Theoretical Physics (ICTP) and the South African Ministry of Science and Technology.
3. Member of the Expert Committee for the External Evaluation of the Museu de la Ciència, Barcelona, Spain. The evaluation was solicited by the European Network of Science Centres and Museums (ECSITE), 2004-2005.

4. Member of the High Level Expert Group on *Science Careers and Education*, DG Research, European Commission, 2003-2004.
5. Participation in the Working Group on Indicators and Benchmarks in Education, DG Education and Culture, European Commission, 2003.
6. Member of the Working Group on Mathematics, Science and Technology Education, Lifelong Learning Policy Development Unit, DG Education and Culture, European Commission, 2002 to date.
7. Member of the Steering Committee, Enlargement Futures Project, EU Institute for Prospective Technological Studies, Seville, Spain, 2002.
8. Communication and Information Tools in the Primary Science Programme, Informatics Group and Curriculum Development Service, Ministry of Education and Culture, Nicosia, 2001-2003.
9. Consulting Expert, EU Institute for Prospective Technological Studies, Seville, Spain, 1999-2002.
10. External Consultant, National Science Foundation Partnership for Inquiry-Based Science, Seattle School District, Seattle, USA, 1997-2000.
11. Preschool Science Programme, Curriculum Development Service, Ministry of Education and Culture, Nicosia, 1996-2002.
12. Primary Science Programme, Curriculum Development Service, Ministry of Education and Culture, Nicosia, 1995-2002.
13. Research Programme to Assess the Primary Science Textbook Implementation Programme, Pedagogical Institute, Nicosia, 1996-1998. The research programme was funded by the Ministry of Education and Culture.
14. Invited to serve on the *Citizen Ambassador Program Physics Education Delegation to India*, People to People International, May 1997.
15. Member of the Planning Committee, IEA Secretariat for the Second Information Technology in Education Study (SITES). The 20-member Committee is responsible for designing the research programme which will extend over some 25 countries.
16. Invited Consultant: Centre of Excellence Merit Fellow, National Institute of Research in Inorganic Materials, University of Tokyo, Japan, 8 December 1995 - 5 January 1996.

### **Organisation of Conferences**

1. Member of the International Scientific Committee, European Science Education Research Association Conference (ESERA 2011), 5-9 September 2011, Lyon, France.
2. Member of the International Scientific Committee, GIREP-EPEC 2011 Conference, 1-5 August 2011, Jyväskylä, Finland.
3. Member of the International Scientific Programme Committee, 14<sup>th</sup> Biennial Conference of the European Association for Research on Learning and Instruction (EARLI 2011): *Education for a Global Networked Society*, University of Exeter, 30 August – 3 September 2011.
4. Member of the Scientific Committee, Sixth Panhellenic Preschool Science Education Conference, Alexandroupolis, 3 – 5 December 2010.
5. Member of the Scientific Committee, Innovative Science Learning Environments, University of Cyprus, 6 November 2010.
6. Member of the International Scientific Committee, GIREP – ICPE – MPTL Conference: Teaching and Learning Physics Today: Challenges? Benefits? 22-27 August 2010, Reims, France.
7. Member of the International Scientific Committee, European Science Education Research Association Summer School for PhD Students (ESERA 2010), 25-31 July 2010, University of Udine, Italy.
8. President of the International Scientific Committee, 9th Computer Based Learning in Science Conference, CBLIS 2010, Warsaw, Poland, 4-7 July 2010.

9. Member of the International Scientific Committee, European Science Education Research Association Conference (ESERA 2009), 31 August – 4 September 2009, Istanbul, Turkey.
10. Member of the International Scientific Programme Committee, 13<sup>th</sup> Biennial Conference of the European Association for Research on Learning and Instruction (EARLI 2009): *Fostering Communities of Learners*, Amsterdam, 25-29 August 2009.
11. Member of the Program Committee, 8th International Conference on Interaction Design and Children (IDC 2009), Politecnico di Milano, Como, Italy, 3-5 June 2009.
12. Conference President, *The Integration of modern ICT tools in learning environments*, University of Cyprus, 6<sup>th</sup> December 2008.
13. Member of the Scientific Committee, 5<sup>th</sup> Panhellenic Conference with International Participation, *Science in Society: Natural Sciences in Early Childhood*, University of Ioannina, Greece, 7-9 November 2008.
14. Conference President, GIREP 2008 International Conference and MPTL Workshop: Physics Curriculum Design, Development and Validation, University of Cyprus, 18-22 August 2008.
15. Member of the Scientific Committee, 4th Panhellenic Conference on The History, Philosophy and Teaching of Science, University of Patras, Greece, 14-16 September 2007.
16. Member of the International Scientific Programme Committee, 12th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI 2007): *Developing Potentials for Learning*, Budapest, Hungary, 28 August – 1 September 2007.
17. President of the International Scientific Committee, 8th International Conference on Computer Based Learning in Science (CBLIS 2007), Crete, Greece, 29 June - 6 July 2007.
18. Conference President, Science and Technology Education Conference, University of Cyprus, 2 June 2007.
19. Member of the Scientific Committee, Fifth Panhellenic Conference on Communication and Information Technologies in Education, Aristotle University of Thessaloniki, 5-8 October 2006.
20. Member of the Program Committee, 3rd International Hands on Science Conference on Science Education and Sustainable Development, Universidade do Minho, Braga, Portugal, 4-9 September 2006.
21. Member of the Scientific Committee, Fourth Panhellenic Preschool Science Education Conference, Volos, 23 – 25 June 2006.
22. Member of the International Scientific Committee, European Science Education Research Association (ESERA) 2005 Conference: *Contributions of Research to Enhancing Students' Interest in Learning Science*. Barcelona, Spain, 28 August – 1st September 2005.
23. Manager and Member of the International Scientific Programme Committee, 11th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI 2005): *Multiple Perspectives on Learning and Instruction*, The University of Cyprus, Nicosia, August 23-27, 2005.
24. Member of the Program Committee, HSci 2005: 2nd International Conference on Hands on Science: *Science Teaching in a Changing Educational World*, 13th - 16th July 2005, University of Crete, Rethymnon, Crete.
25. President of the International Scientific Committee, Seventh International Conference on Computer Based Learning in Science, CBLIS 2005, University of Zilina, Slovakia, 2-6 July 2005.
26. Member of the Program Committee, HSci 2004: 1st International Conference on Hands on Science Teaching and Learning Science in the XXI Century, 5th - 9th July 2004, Ljubljana, Slovenia

27. Chairperson, Exciting Geography: The Conference of the HERODOT European Thematic Network on Geography Education, 21-23 May 2004, Nicosia, Cyprus.
28. Member of the Local Organising Committee, CASTME International and CASTME Europe Conference: Linking Science, Mathematics and Technology Education and their Social Relevance, 15-18 April 2004, Nicosia, Cyprus.
29. Chairperson, Third Panhellenic Conference on Physical Science in Preschool Education, Nicosia, 30th January – 1st February 2004.
30. Member of the International Scientific Programme Committee, 10th Biennial Conference of the European Association for Research on Learning and Instruction: Improving Learning, Fostering the Will to Learn, Padova, Italy, August 26-30, 2003.
31. Chairperson and President of the International Scientific Committee, Sixth International Conference on Computer Based Learning in Science, CBLIS 2003, Nicosia, 5-10 July 2003.
32. Member of the International Scientific Committee, Geography Education in an Evolving Europe, London, 22-25 March 2003.
33. Member of the Organizing Committee, The Cyprus Computer Society Conference on Informatics in Education, Nicosia, Cyprus, 12-13 December 2002.
34. Member of the Scientific Committee, Conference of the European Early Childhood Education Research Association, Nicosia, Cyprus, 28 - 30 August 2002.
35. Member of the Scientific Committee, 3<sup>rd</sup> Panhellenic Conference *Didactics of Science and Application of New Technologies in Education*, University of Crete, Rethymnon, May 9-11, 2002.
36. President of the Conference, 3<sup>rd</sup> Mediterranean Computer Using Educators' Conference, University of Cyprus, Nicosia, Cyprus, April 19-21, 2002.
37. Member of the Scientific Committee, Second Panhellenic Conference on Physical Science in Preschool Education, Thessaloniki, 14-16 December 2001.
38. Member of the Local Planning Committee, Third International Conference of the European Science Education Research Association ESERA, Thessaloniki, 21-25 August 2001.
39. Member of the Scientific Committee, Fourth Pancyprian Conference of the Mathematics Society and Symposium on Space and Astronautics, 26-28 January 2001, Larnaca, Cyprus.
40. President of the Conference, 2<sup>nd</sup> Mediterranean Computer Using Educators' Conference, University of Cyprus, Nicosia, Cyprus, November 4-5, 2000.
41. Member of the Scientific Committee, Physics Education Research Conference, American Association of Physics Teachers, University of Guelph, Ontario, Canada, July 29 - August 4, 2000.
42. Member of the Organizing Committee, The Melkonian Science Fair Teachers' Conference, The Melkonian Institute, Nicosia, Cyprus, April 15, 2000.
43. Member of the scientific committee, 1st Educational Conference *Information Technology in Pre-primary and Primary Education*, Limassol, 26 February 2000.
44. Member of the Scientific Committee, Fourth International Conference on Computer Based Learning in Science, University of Twente, Enschede, The Netherlands, 2-6 July 1999.
45. President of the Conference, 1<sup>st</sup> Mediterranean Computer Using Educators' Conference, University of Cyprus, Nicosia, Cyprus, June 5, 1999.
46. Member of the Scientific Committee, 3rd Symposium on *Communication and Information Technology in Education*, Cyprus Pedagogical Institute, 8 May 1999, Nicosia, Cyprus.
47. Convener and Chair, Special Track on *Education in the Information Society*, EURO-MED Net 98 Conference: Role of Internet and the World Wide Web in Developing the Euro-Mediterranean Information Society, 4-7 March 1998, Nicosia, Cyprus.

48. Member of the Program Committee, EURO-MED Net 98 Conference: Role of Internet and the World Wide Web in Developing the Euro-Mediterranean Information Society, 4-7 March 1998, Nicosia, Cyprus.

### **Organisation of Workshops and Summer In-service Training Seminars**

1. L. Rogers, C. Constantinou, E. Kawecka, E. Kedzierska, Zd. Lustigova, M. Papaevripidou, J. Twidle, H. Urban-Woldron, Information and Communication Technology for Innovative Science Teachers (ICT for IST). Workshop organized at the 9th Computer Based Learning in Science Conference, CBLIS 2010, Warsaw, Poland, 4-7 July 2010.
2. G. Michael, N. Papadouris, K. Iordanou, C. P. Constantinou, Chr. Avraam  
A web-based learning environment for promoting high school students' understanding of the greenhouse effect and development of argumentation and decision making skills in the context of climate change.  
Workshop organized at the 9th Computer Based Learning in Science Conference, CBLIS 2010, Warsaw, Poland, 4-7 July 2010.
3. New trends in science teaching and the role of laboratory approaches, Pascal School, Nicosia, Cyprus. 17 November 2008.
4. Mechanisms for fostering reflective inquiry practices in science, European Science Education Research Association Conference, ESERA 2007, Malmö, Sweden, 20-25 August 2007.
5. Organizing a science fair and monitoring its learning outcomes. Professional development workshop. Highgate School, Nicosia, Cyprus. 29 September 2006.
6. E. A. Kyza, Z. Zacharia and C. P. Constantinou  
STOCHASMOS: A web-based learning environment for supporting reflective inquiry. Workshop conducted at the Kaleidoscope meeting "*Inquiry Learning, building bridges to practice*" University of Twente, Enschede, Netherlands, 29-31 May 2006.
7. M. Michael, E. A. Kyza, C. P. Constantinou and Z. Zacharia  
STOCHASMOS: A web-based learning environment for providing reflective support for open inquiry with scientific evidence (in Greek)  
Workshop presented at the 3rd Conference of the Greek Union for Science Education, Volos, Greece, 7-9 April 2006.
8. Tutorials in Introductory Physics: a Workshop for University Faculty and Secondary School Teachers (in Greek), Department of Physics, University of Ioannina, 14 June 2004 (with L. C. McDermott and M. McDermott).
9. Developing Investigative Skills in the Primary School, Teachers' Workshop, 28 February 2004, Aradippou, Cyprus.
10. The Science Fair in the kindergarten, Teachers' Workshop, 28 February 2004, Aradippou, Cyprus.
11. The pedagogical aspects of the eLearning pilot program at the University of Cyprus: implementation and monitoring, Faculty Workshop, 18 February 2004, University of Cyprus, Nicosia, Cyprus.
12. Learning Physics by Guided Inquiry: A workshop for the Second International GIREP Seminar: Quality Development in Teacher Education and Training, Udine, Italy, 1-6 September 2003 (with L. C. McDermott, P. Heron, and Chr. Kautz).
13. Science Teaching and Learning in the Kindergarten: an extended Workshop for Preschool Educators. Cyprus Pedagogical Institute, Ammochostos and Pafos Districts, June 2003 - May 2004.
14. Science Teaching and Learning in the Kindergarten: an extended Workshop for Preschool Educators. Cyprus Pedagogical Institute, Nicosia and Limassol, October 2002 - May 2003.

15. Science Teaching and Learning: a Brief Overview. A Kindergarten Educators Workshop, Liopetri, 29 January 2003.
16. Science Education in the Kindergarten: a Workshop for School Inspectors and Chief Education Officers. The University of Cyprus, 25-26<sup>th</sup> June 2002, Nicosia, Cyprus.
17. The topic of water resource management as a means of developing investigative skills. Teacher training workshop. The Melkonian Institute Science and Ethics Seminar, 31<sup>st</sup> March 2001, Nicosia, Cyprus.
18. Preparing Pre-college Teachers to Teach Physics by Inquiry (with L. C. McDermott and the Physics Education Group)  
Preconference Workshop, American Association of Physics Teachers Conference, January 2005 (Albuquerque, New Mexico), January 2000 (Orlando, Florida); August 1999 (San Antonio, Texas); August 1997 (Denver, Colorado).
19. Tutorials in Introductory Physics: A Research-Based Approach to Increasing Student Learning (with L. C. McDermott and the Physics Education Group)  
Preconference Workshop, American Association of Physics Teachers Conference, January 2005 (Albuquerque, New Mexico), January 2000 (Orlando, Florida); August 1999 (San Antonio, Texas); August 1997 (Denver, Colorado).
20. In-Service Teacher Training in Computer Supported Learning  
The Cyprus Computer Society Conference *CIT in Education in the new Millenium*, 20-21 May 2000, Nicosia, CYPRUS.
21. Teaching Children how to Design Experiments: A Workshop for Elementary Science Teachers  
Science Education Conference, 15 April 2000, Melkonian Educational Institute, Nicosia, CYPRUS.
22. Implementing your own Science Fair: A Workshop for Elementary Science Teachers  
Science Education Conference, 15 April 2000, Melkonian Educational Institute, Nicosia, CYPRUS.

### **Local Authority Boards and Public Committees**

1. Member of the Scientific Board of the Loukas Pouroulis Interactive Learning Museum, 2010-2012.
2. Member of the Committee for the establishment of the Pancyprian Gymnasium Interactive Learning Center, 2009-2010.
3. Member of the Evaluation Review Committees for *Educational Sciences*, Cyprus Council for the Recognition of Higher Education Qualifications, 2007-2010.
4. National Representative in the Science and Society Program Committee, DG Research, European Commission, 2004-2005.
5. Ministry of Education and Culture, National Standards Committee (Primary Grades) for the Natural Sciences (Chairperson), 2002-2004
6. Ministry of Education and Culture, Pedagogical Institute, Steering Committee for the Preparation of Pre-Service Secondary Teachers, 1999-2007.
7. Member of the Governing Board, University of Cyprus Union of Academic Personnel: Treasurer (2000-02), Chairperson (2003-04), Vice-Chairperson (2005-06).
8. Ministry of Education and Culture, National Standards Committee for the Natural Sciences (Physics, Chemistry, Biology and Natural Sciences), 1999-2001.
9. Ministry of Education and Culture, Primary Science Committee, 1996-2010.
10. Ministry of Education and Culture, Information and Communication Technology Committee, 2000-02.
11. Ministry of Education and Culture, Preschool Education Committee, 1996-1999, 2002-2004.

12. Representative of the University on the Youth Board of the Aglantzia Municipality, 1996-2002.

### **University Boards**

1. Board of the School of Social and Educational Sciences, 2006-2010.
2. Board of the School of Humanities and Social Sciences, 1998-2002.
3. Board of the Department of Educational Sciences, 1998-2000

### **University Committees**

1. Co-ordinator of the Monitoring Committee, eLearning Content Development Project, 2009-2010.
2. Senate Postgraduate Studies Committee, 2006-2009.
3. Chairperson, Specifications Committee for a new Medical Plan, 2004.
4. Ad-hoc Senate Committee for eLearning, 2002-2004.
5. Medical Insurance Administrative Committee, 2003-2010.
6. Committee for eUniversity Policy and Internet Portal Design Specifications, 2003.
7. Committee for Network and Computer Systems Security Policy Specifications, 2003.
8. Total Quality Management for Information Technology Services Committee, 2002-2003.
9. Medical Insurance Bids Evaluation Committee, 2002.
10. Senate Tenure and Promotion Committee, 1996-2000.
11. Ad-hoc Senate Committee for the Drafting of Tenure and Promotion Criteria, 1997.
12. Senate Library Committee, 1996-98.
13. Senate Communication and Information Technology Committee, 1998-2004.
14. Ad-hoc University Web Pages Committee, 1999 – 2000, 2002.
15. Ad-hoc IT Equipment Specifications Committee, 1996, 1997, 1999.

### **Departmental Committees**

1. Ad-hoc Committees for the Evaluation of nine members of the department's assistant personnel – school practicum, science, design and technology (Chairperson in two cases), 2002.
2. Ad-hoc Committee for an Evaluation Procedure for Assistant Personnel, 2002
3. School Practicum Committee 2000 – 2002, (Chairperson); 2002 to date (Vice Chairperson)
4. Equipment Specifications Committee 1999 – 2001, (Chairperson)
5. Equipment Evaluation Committee 1998-2000, (Chairperson)
6. Information Technology Committee 1995 - 96, 1998-99, (Chairperson)
7. Information Technology Committee 1996-98
8. Library Committee 1995-2000 (Member, responsible for Research Journals)
9. Research Laboratories Committee, 1996-98.
10. Academic Programs and Schedules Committee, 1995-96
11. Ad-hoc Committee for the Selection of Teaching Assistants in Design and Technology, 1995-1996, 2000-01.
12. Ad-hoc Committee for Selection of Teaching Assistants in Geography, 1996.
13. Ad-hoc Committee for Selection of Teaching Assistants in Physical Science, 1996.
14. Ad-hoc Committee for the establishment of a kindergarten, 1996.

### **Other Departmental and University Responsibilities and Contributions**

1. I chaired a paper symposium on Science Education and I coordinated a keynote address at the Conference of the European Early Childhood Education Research Association, August 2002.
2. I am one of the founders and co-ordinators of the Graduate Program, *Learning in Science*.
3. I set up and equipped the Design and Technology Laboratory.
4. I contributed to the equipping of the Learning in Physical Science Laboratory.
5. I contributed to the setting up and equipping of the Learning in Biological Science Laboratory.
6. I contributed to the equipping of the Behavioural Sciences Laboratory.
7. I contributed to the equipping of the Mathematics Education Laboratory
8. I supervised Visiting Scientists and Teaching Assistants in the School Practicum, Geography and Social Studies (courses and practicum, phase II and III), Educational Technology, Design and Technology (course and practicum) and Physical Science (laboratories and practicum, phase II and III).
9. I contributed to the equipping of the equipping of an IT and Multimedia laboratory.
10. I chaired and coordinated a session on "Behavioural Problems" during the First One-Day Congress on *Special Education in Cyprus: Experiences and Perspectives* of the Cyprus Society on Special Needs. I also presented to the same Congress a Discussant on the above session, 4 May 1996.
11. I chaired and coordinated a session of the Educational Psychology Congress organised by the University of Cyprus Psychology Society. I also presented to the same Congress a Discussant on the above session. 15 - 16 June 1996.
12. I chaired and coordinated a parallel session during the Fifth Conference on *Quality in Education* of the Cyprus Education Association jointly with Dr. M. Kefala of the University of Cyprus. I also presented to the same Congress a Discussant on the above session. 14 - 15 March 1997, Nicosia, Cyprus.
13. I greeted the 2<sup>nd</sup> International Conference of the Cyprus Musicological Society on behalf of the University of Cyprus, 7-8 June 2002, Nicosia, Cyprus.