Teaching portfolio

1. Teaching CV: A list of teaching and supervision tasks, including specification of academic fields, scope, level (bachelor, master, continuing education, PhD). Please state the teaching method used (e.g. lecture, class teaching, exercises, supervision, examination, coexamination, distance teaching, internet-based teaching and evaluation of teaching). Please also indicate the language of instruction.

Levels: bachelor, master, continuing education, PhD Fields: Image Processing & Computer vision, Lighting Design, Programming, Computer science Methods: Lectures, workshops, flipped classrooms, online, supervision Languages: English, Greek Years active: Since 1998 1998 – 1999 (2 times) Teaching (as visiting lecturer) in "Sound Synthesis and Processing" and "Theory of Sound" at the State Institute for Occupational Preparation, Thessaloniki, Greece. •Sound processing basics •Audio signal analysis and processing •Sound filtering •Audio features and matching 1999 -2002 (4 times) Teaching assistant in "Digital Filters" (fourth year course) at Electrical and Computer Engineering Dept of the Aristotle University of Thessaloniki, Greece. •Digital Signal Processing Introduction, Z Transform, Fourier Transform, DFT, FFT •IIR and FIR filters – digital filter design •2D signal processing •Stability of digital filters •Wavelets, Filter banks •Time series theory 2004 -2007 (4 times) Teaching (as visiting lecturer) in "Medical Image Coding and Processing" at Medical Informatics Postgraduate Program of the Aristotle University of Thessaloniki, Greece •Image and video compression formats •Types and features of medical images •Medical images processing •Feature detection and recognition. Segmentation and analysis of medical images •3D medical imaging 2005 - 2007 (3 times) Teaching (as visiting lecturer) in "Computer Systems" at Electrical and Computer Engineering Dept of the Aristotle University of Thessaloniki, Greece •Computer hardware introduction •Operating Systems architecture •Computational systems •Introduction in network systems 2006 - 2007 (2 times) Teaching (as visiting lecturer) in "Computer Architecture" at Electrical and Computer Engineering Dept of the Aristotle University of Thessaloniki, Greece •Digital logic level •Instruction set architecture •Microarchitecture •System design 2008 (1 time) Teaching (as visiting lecturer) in "Structured Programming" at Electrical and Computer Engineering Dept of the Aristotle University of Thessaloniki, Greece •Programming basics •Compilers •C/C++ 2009 -2012 (3 times)Teaching (as assistant professor) in "Artificial Intelligence – Experts Systems" at Informatics Engineering Dept of the Technological Educational Institute of Crete, Greece •Systems intelligence, toy problems •Graph and tree search algorithms •Genetic algorithms •Semantic data analysis and knowledge representation •Machine learning, data mining •Agents and ontologies 2009 -2011 (3 times) Teaching (as assistant professor) in "Digital Image Processing" at Informatics Engineering Dept of the Technological Educational Institute of Crete, Greece •Digital image processing and analysis •Image compression and coding techniques •3d Imaging and applications •Image and video semantic analysis •Feature detection •Object and activity recognition 2010 - 2011 (2 times) Teaching (as assistant professor) in "Introduction to Informatics" at Informatics Engineering Dept of the Technological Educational Institute of Crete, Greece •Software development •Programming basics •Operating systems •Network and applications 2010 -2012 (3 times) Teaching (as assistant professor) in "Computer Graphics" at Informatics Engineering Dept of the Technological Educational Institute of Crete, Greece •Transformations •Lighting •Texturing •Rendering and animation •2d and 3d graphics •OpenGL and XNA 2012 – 2023 (8 times) Teaching (as adjunct & associate professor) in "Image Processing" at Medialogy Section ADMT dept, Aalborg University, Denmark •Digital images •Point processing •Colors •Morphological Filtering •Image analysis •Image processing in the frequency domain 2013 -2014 (2 times) Teaching (as adjunct professor) in "Procedural Programming" at Service System Design Master, ADMT dept, Aalborg University, Denmark •Introduction to multimedia •Playing Sound, Images, Animation and Video in Processing •Interactivity in Processing •Exploring the Android mode of Processing •Network programming with Processing •Augmented reality with processing 2013 -2016 (4 times) Teaching (as adjunct & associate professor) in "Multimedia Programming" at Medialogy Master at Medialogy Section ADMT dept, Aalborg University, Denmark •Introduction to multimedia •Interactive multimedia •Android development •Multiplayer and networking •Augmented reality •Embedded programming 2013 -2014 (2 times) Teaching (as adjunct professor) in "Procedural programming" at Medialogy Master at Medialogy Section ADMT dept, Aalborg University, Denmark •Introduction to C++ Programming •Data types •Pointers •Linked lists •Recursion 2013 -2015 (3 times) Teaching (as adjunct professor) in "Foundations in Computer Graphics" at Master's level at Medialogy Section ADMT dept, Aalborg University, Denmark •Introduction in computer graphics research •Topics in computer graphics •Advanced work on a student-selected specialization 2018 (1 time) Teaching (as associate professor) in "Algorithms, Data Structures and Software Engineering" at Master's level at Medialogy Section ADMT dept, Aalborg University, Denmark •Introduction in software engineering •Cloud computing and services 2019 -2022 (4 times) Teaching (as associate professor) in "Technologies in Web and Social Media" at Master's level at Medialogy Section ADMT dept, Aalborg University, Denmark •Introduction in HTML and CSS •jQuery, Ajax and JSON •APIs, AngularJS and Angular •MEAN stack 2013 (1 time) Teaching (as adjunct professor) in "Foundations in Light Design" at Master's level at Medialogy Section ADMT dept, Aalborg University, Denmark •Introduction in light design research •Topics in light design •Advanced work on a student-selected specialization 2014 -2023 (10 times) Teaching (as adjunct & associate professor) in "Rendered Light Simulation" at Lighting Design Master's level at ADMT dept, Aalborg University, Denmark •Introduction in light design research •Light in computer graphics •Ray tracing, advanced rendering •Light-matter interaction •HDR, mapping, virtual cameras 2015 – 2022 (8 times) Teaching (as associate professor) in "Intelligent Lighting Design" at Lighting Design Master's level at ADMT dept, Aalborg University, Denmark •Introduction in light Intelligent and interactive research •Natural user interfaces – Computer vision •Connected lighting •Use of Arduino and Single Board Conputers •Lighting Technology and communication protocols 2021 -2023 (3 times) Teaching (as associate professor) in "Programming for services" at Service System Design Master, ADMT dept, Aalborg University, Denmark •Introduction to programming using Python and

interactive notebooks •Visualization of data •Using APIs and accessing online data •Machine learning and Artificial Interlligence 2022 (1 time) Teaching (as associate professor) in "Evidence based Lighting" at Lighting Design Master's level at ADMT dept, Aalborg University, Denmark •Introduction in evidence-based and research-based lighting design •Glare & lighting •Melanopic effect of lighting •Light & Health Supervising Experience (2004-2008) Supervising 4 diploma theses (in co-operation with Prof MG Strintzis) at Electrical and Computer Engineering Dept of the Aristotle University of Thessaloniki, Greece (2006-2007) Supervising 2 postgraduate theses at Medical Informatics Postgraduate Program of the Aristotle University of Thessaloniki, Greece (2009-2012) Supervising 24 graduate theses at Informatics Engineering Dept of the Technological Educational Institute of Crete, Greece (2011-2015) Local supervisor of PhD thesis: T. Kounalakis - Activity recognition using combined SIFT and L1 techniques, Brunel University (2012-now) Supervisor of more than 100 projects (semester projects or master theses) under the Problem Based Learning (PBL) Model in Medialogy Bachelor & Master and Lighting Design Master, ADMT, Aalborg University

2. Study/programme administration and management: Experience in programme management and coordination. A list of study administration tasks, e.g. study board membership, chair of study board, semester or course coordinator, accreditation tasks, etc. Experience in planning teaching activities. Experience in programme development. Participating in committees and commissions etc. on education issues.

Lighting Design 4th (master thesis) semester coordinator from 2016 until now Lighting Design 1st semester coordinator 2022 Medialogy 3rd Semester co-coordinator 2013 and 2014 Medialogy 3rd Semester coordinator 2023 Course development in Image Processing, Computer vision, Programming, ML & AI, Intelligent lighting design Organization of workshops (eg Electronics, Projection mapping, etc)

3. Formal pedagogical training: A list of completed courses in university pedagogy, PBL courses, workshops, academic development projects, collegial guidance and supervision, etc. Written assessment from the course in university pedagogy for assistant professors. Participation in conferences on pedagogy and didactics. Please enclose any documentation of the above, such as course certificates, references, etc

Attendance at AAU pedagogical course for assistant professors Presentation at 8th international Erasmus week on soft skills and internationalization of higher education Participation to Erasmus+ projects regarding PBL, flipped classrooms, gamification, virtual and blended learning moidalities. Scientific organizer and lecturer of the Erasmus Intensive Program with the title Computer Vision and Intelligent Computer Systems, organized in Brno, June/July 2013. Organizer of three summer schools of the Erasmus+ Light4Health project, 2019-2022

4. Other qualifications: Conference contributions and attendance, contributions to debates, scientific articles on pedagogical issues etc. Peer supervision, editorials, mentoring experience or other types of competence development activities.

Authoring journal papers and conference publications on the topics technology enhanced learning.

5. Pedagogical development and research: Development of new courses, teaching materials, teaching methods, examination types or other types of pedagogical development. Didactic and pedagogical research. Cooperation with external collaboration partners.

Type your answer here...

6. References on your teaching skills from superiors or colleagues. Teaching evaluations and any teaching awards received.

[1] Robert A. Ferguson, "The Nine and a Half Commandments of Good Teaching", The University of Chicago Center for Teaching and Learning, 2010. [2] G.A. Triantafyllidis, V. Mitropoulou: "Changing classroom environment by the use of ict and the new emerging role of the teacher", IADIS e-Society 2005, Qawra, Malta, June 2005. [3] Blakemore, S. J. (2010). The developing social brain: implications for education. Neuron, 65(6), 744-747 [4] Prensky, How to teach with technology: Keeping both teachers and students comfortable in an era of exponential change. Emerging Technologies for Learning, 2, 40-46, 2007

7. Personal reflections and initiatives: Here you may state any personal deliberations as regards teaching and supervision, any wishes and plans for further pedagogical development, plans for following up on student feedback/evaluations, etc. Personal reflections on your own pedagogical practice, including objectives, methods and

implementation. This should include an analysis and a reasoned description of your pedagogical activities in relation to your pedagogical understanding and student learning. Thoughts on the teaching method at Aalborg University (which is largely based on group-organised project work and problem-based learning)

Maybe the biggest challenge in teaching is to deal with heterogeneous groups of students. This comes from the fact that the courses that I am teaching are mainly technical, so I am expected to experience a big difference in the students' capabilities. A method that I have tested to this context is the "deep slice" approach. That means that the structure of a lecture starts from the very basics but very fast we go deeply into more advanced topics. The purpose of this is to make both the experienced and the inexperienced students to show the proper interest in the lecture.

8. Any other information or comments.

Type your answer here...