

**Application
for the
MAP-i Doctoral Programme
and
Research Grant**

Eduardo Valgôde

April 2008

My name is Eduardo Valgôde, I am very interested in engaging in the MAP-i Doctoral Programme and I believe I am fully qualified and motivated to take the best from it and achieve excellent results. In the following paragraphs I will describe myself, justify my interest in the MAP-i doctoral programme and explain why I believe I gather all the conditions for being successful in it.

I have been interested for a long time in science and technology. My secondary school studies were in an electronics technological course, which I completed with great success (an average of 18 out of 20).

I entered FEUP's Electrical and Computer Engineering programme with an open mind knowing that I would be learning electronics and a number of other subjects that I had not yet been introduced to. Moreover, I was certain that I would be learning with highly qualified people in one of the best Portuguese Universities.

During the period I was in the University, my interests drifted as I learnt about new fields of knowledge unknown to me at the time. Starting with electronics my attention moved to control systems software and, later, to software in general and, in particular, to computer vision, computer graphics.

After having been introduced to fuzzy logic and robotics control systems, I realized that algorithms and software development were much more interesting to me personally than I had previously imagined. Since then, I committed to focus more on this field, rather than hardware.

During my final year at University, I had the chance to do a project under the POCI internship programme. The project was held at LIACC, supervised by Prof. Luís Paulo Reis, and consisted in developing software capable of recognizing facial expressions in real time using a digital camera in order to control an intelligent wheelchair. The project was successfully completed and was presented by poster at the CompIMAGE 2006 symposium. It was also subject to the publication of several papers: "Multimedia Interface with an Intelligent Wheelchair". This project was also very important to me since it was my first big step into computer vision and also led me to work with 3D graphics and simulation, a field already very appealing to me at the time and now even more. It also was my introduction to the scientific research and development process, which I found very interesting and motivating, particularly by the constant learning and the constant challenges.

After graduating, curious about the industry world I applied for an internship at Qimonda S.A. and worked there for 13 months. My work was in high speed test program development and I also had the chance of doing some work in the information systems area. I acquired valuable knowledge and experience in the process of maintaining software on a very large scale and in a geographically distributed environment, its difficulties and how to overcome them. Although Qimonda is an excellent working place and the company proposed me a very interesting contract, I left Qimonda due to vocational reasons. I decided to pursue a research career, starting in February 2008 at LIACC and aiming at starting my PhD in September after a six month period of research planning.

Consequently, I am presently studying and researching about developed work in my main fields of interest. This way I hope to be able to increase the quality and progress rate of my future thesis. I am also working in part time as a monitor at FEUP in the Programming 2 discipline. My present goal is to take a doctoral degree in Computer Science, focusing more on artificial intelligence, visualization systems and simulation, and to achieve the best results.

Intelligent systems combined with immersive technologies have been in great demand by the general public since they first appeared. Their applications are numerous and generally have attained a high level of success. Next I name some of the fields and applications, which interest me the most and in which I intend to base my PhD thesis.

- Simulation: a number of problems require simulation in order to validate the proposed solutions or to have a better understanding of the problem itself. For example crowd simulation is a widely studied field in the scientific community which can involve a great number of different subjects, such as, chaos theory, social sciences, distributed systems, multi-agent systems, 3D rendering software.

- Health support: virtual reality has been used for a wide number of physical rehabilitation exercises. Games in immersive environments have been designed in order to demand from the player some specific movements. The advantage is that people can forget about their handicaps while they play and consequently, do the exercise more naturally and achieve much better results. Due to the strong presence that can be provided by virtual reality, it has been successfully used in psychotherapy, especially to cure phobias.

I am planning to develop a simulation system possibly with some game aspects to it, in order to be used as a rehabilitation tool and scientifically exploring how a multi-agent system can be used to increase the overall success. It is also in the scope of this project to determine in what way the visualization component influences the results. Presence in this type of system is very important and previous studies revealed that both the coherence of stimuli and the level of immersion have a very strong influence in it. One of the research objectives is to determine how should be the behaviour of virtual characters in a virtual space controlled by software agents in order to increase presence levels. The other objective is to research what are the visualization system characteristics that lead to higher levels of immersion. The final result should be a fully functional more efficient virtual reality prototype for rehabilitation exercises.

On a more personal level I describe myself as a determined and strongly self motivated person. I have a social conscience and taking chances to contribute to the welfare of people is always pleasant and fulfilling. I like to keep positive good-humoured relationships with both my friends and co-workers. My interests on a non-professional level mainly involve drawing, visual arts and storytelling. I also enjoy practicing sports, travelling and meeting new cultures.

Finally, I would like to say that I am looking for the best doctoral programmes available at the moment and MAP-i is certainly one of the best. The institutions involved are in the rank of the best national institutions in the field of Computer Science. The multi-institution environment is certainly one great asset, since it encourages dialogue and cooperation. I am confident that my work at MAP-i will provide me with valuable knowledge and expertises in order to develop excellent scientific work. I am also confident that through my work, I will be able to actively and positively contribute to the excellent reputation of the MAP-i doctoral programme.

Curriculum Vitae

Eduardo Manuel de Condado Valgôde

April - 2008

Eduardo Manuel de Condado Valgôde

Rua Rui de Pina 106, Vila Nova de Gaia 4400-287

+351 964 206 068

eduardo.valgode@gmail.com

PERSONAL DATA

Full Name: Eduardo Manuel de Condado Valgôde

Nationality: Portuguese

Birth place and date: Lisboa, 8-DEC-1981

National ID Card: 11984218

EDUCATION

Faculty of Engineering of the University of Porto

Graduation in Electrical and Computers Engineering - 14 (14.46)

1999-2006

Specialized in Control and Automation

Colégio Internato dos Carvalhos

Electronics Technological Course - 18

1996-1999

OTHER COURSES

Sun Microsystems

Shell Programming for System Administrators (SA-245)

2007

ADVANTEST

Memory Test Systems Applications - I

2007

PROFESSIONAL EXPERIENCE

Faculty of Engineering of the University of Porto

Monitor in Programming 2 course

Feb 2008 - Present

The subject covers C++ programming, algorithms and data structures. My tasks are to support students in practical assignments and to assist students in their study process.

Qimonda S.A. (Portugal)

Trainee Engineer

Jan 2007 – Feb 2008

Worked in the high speed test program development and maintenance. Developed report tools and implemented them in a web based information system.

Laboratory of Artificial Intelligence and Computer Science (Portugal)

Researcher

Feb 2006 - Oct 2006

Developed a prototype computer vision system that recognized facial expressions in order to command an intelligent wheelchair. Developed a 3D simulator using OpenGL to validate the system.

RESEARCH PROJECTS

LIACC/ISR-P/FEUP

**Project INTELWHEELS – An intelligent and Configurable Wheelchair Jan 2006 – Oct 2006
for Helping Quadriplegia and Cerebral Palsy People**

Project member. Developed the first facial expression recognition module - 4 publications.

"With the change of the age of the population, the needs of the elderly and handicapped persons had been much more considered by the politicians, the employers and the scientists. Recent advances on the robotic, multimedia, artificial intelligence and computer science areas allow the growth of fields and possible applications where the elderly and handicapped persons can be helped. This investigation project intends to project and develop an multimedia system for interaction and control of an intelligent wheelchair, based on the development of facial expressions recognition methodologies appropriated for the detection of expressions on individuals with Quadriplegia and Cerebral Palsy Handicapped and his integration like one of the main interaction mechanisms of control and configuration of an intelligent wheelchair.

On this project it is intended the development of an human-computer interface, mainly based on facial expressions result of muscle contractions. On the case of an individual that just can move one or two muscles of his face (e.g. blink the eyes) that will be his interaction with the system. The development and test of the system will be made with several individuals previously selected with the support of the other partner of the project – the APPC. It is expected that the system to be developed could be an effective alternative to people with severe motor/mental impairments. High-level questions that occurs when we propose this project concerns with the possibilities of an individual to calibrate and optimize autonomously the functionality of his wheelchair, by the development of robustness methodologies for facial expressions recognition, using a multiagent system with learning capabilities and a user interface that allows the interaction with the wheelchair, using an appropriated command language.

IntelWheels Project main objective is the development of a wheelchair prototype that may help people with Quadriplegia and severe Cerebral Palsy to live a more normal life. The project specific objectives are:

** To develop facial expression recognition methodologies appropriate for detecting expressions of cerebral palsy and quadriplegic individuals.*

** To develop speech recognition and voice synthesis modules to facilitate user-wheelchair communication.*

** To build an intelligent wheelchair prototype including advanced sensorial capabilities, the use of computer vision and intelligent planning and navigation capabilities.*

** To project and implement a wheelchair high-level control application based on an high level command language with interface using on facial expressions. The interface will enable the user to fully configure the system selecting which expression to use for each command.*

The project will create the basis for the development of a new concept of configurable wheelchair that will enable the user to fully control the way the chair is controlled."

SCHOLARSHIPS

Ministry of Science Technology and Superior Studies

(Ministério da Ciência Tecnologia e Ensino Superior)

**Operational Program Science and Innovation 2010
(Programa Operacional Ciência e Inovação 2010)**

Jan 2006 – Aug 2006

Scholarship that sponsored my internship at LIACC

THESIS

- Bruno Martins, Eduardo Valgôde, "Multimedia Interface with an Intelligent Wheelchair", Projecto Seminário Trabalho de Fim de Curso em Engenharia Electrotécnica e de Computadores, (Orientador: Luís Paulo Reis, Co-Orientador: Pedro Faria), Faculdade de Engenharia da Universidade do Porto, Julho de 2006 (in portuguese)
-

PAPERS IN CONFERENCE PROCEEDINGS

- Bruno Martins, Eduardo Valgôde, Pedro Faria and Luís Paulo Reis. Multimedia Interface with an Intelligent Wheelchair. In João M. Tavares and Renato N. Jorge (eds.) Proc. of CompImage 2006 – Computational Modelling of Objects Represented in Images: Fundamentals Methods and Applications, Coimbra, Portugal, 20-21 October, 2006, Taylor & Francis Group, London, UK, pp. 267-274, 2007, ISBN: 978-0-415-43349-5
 - Pedro Miguel Faria, Rodrigo A. M. Braga, Eduardo Valgôde, Luís Paulo Reis. Platform to Drive an Intelligent Wheelchair using Facial Expressions. Proceedings 9th International Conference on Enterprise Information Systems - Human-Computer Interaction (ICEIS 2007). pp. 164-169. Funchal-Madeira, Portugal. June 12–16, 2007. ISBN: 978-972-8865-92-4
 - Pedro Miguel Faria, Rodrigo A. M. Braga, Eduardo Valgôde, Luís Paulo Reis. Interface framework to drive an intelligent wheelchair using facial expressions. IEEE International Symposium on Industrial Electronics (ISIE 2007). pp. 1791-1796. Vigo, Spain. June 4–7, 2007. ISBN: 1-4244-0755-9
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COMMUNICATIONS

- Bruno Martins, Eduardo Valgôde, Pedro Faria, Luís Paulo Reis, "Multimedia Interface with an Intelligent Wheelchair", CompIMAGE 2006, Coimbra. – Poster
-

OTHER SKILLS AND ACTIVITIES

- Drawing Course – "Desenhar Desenhando" , at the Faculty of Architecture of the University of Porto: 2007 - present
 - Erasmus Exchange Program 2005/2006 - TTÜ Estonia
 - Operating Systems: Windows (2000, XP, Vista), Linux, Unix Solaris 8
 - Programming Languages: C++, C, Python, PHP, Delphi, Assembly, VBA, CSH
 - Graphics Systems: OpenGL
 - DB Systems: PostgreSQL, SQLite, Access
 - Development Environments: Visual Studio 2005, Eclipse, Matlab, Scilab, Mathematica, TI Code Composer Studio, Labview
 - 3D Modeling and Animation Software: Blender, 3D Studio Max, AC3D
 - Real Time Interactive 3D Visualization: GameBlender
 - Image Processing Software: Photoshop, Gimp, Corel Draw
 - Experience with Wacom Intuos 3
 - Experience in modeling systems using Petri Nets and Artifex
 - Experience with Electronics Workbench
 - Experience programming Risc microcontrollers
 - Office Software: (Microsoft) Word, Excel, Vision, Powerpoint, Project, Front Page; Open Office, Dia
-

LANGUAGES

- Portuguese – native language
 - English – speak fluently, read and write with high proficiency
 - Estonian – elemental reading, writing and speaking
-



ÁREA DE FORMAÇÃO:

Engenharia Electrotécnica e de Computadores

DESIGNAÇÃO ESTÁGIO:

Interface Multimédia para Cadeira de Rodas Inteligente

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ACTIVIDADES / ÁREAS FUNCIONAIS	CARGA HORÁRIA	COMPETÊNCIAS ADQUIRIDAS
Estudo sobre Processamento e Análise de Imagem e selecção de algoritmos de análise de imagem	50	Processamento e Análise de Imagem Digital
Estudo sobre Redes Neurais e outras Metodologias de Reconhecimento de Padrões	50	Reconhecimento de Padrões/ Inteligência Artificial
Captura de imagens e videos com expressões faciais	50	Video Digital/ Processamento e Análise de Imagem Digital
Desenvolvimento de metodologias de reconhecimento de expressões faciais	150	Processamento e Análise de Imagem Digital
Projecto e implementação de uma aplicação de reconhecimento de expressões faciais em videos	200	Análise de sistemas/ Programação de Computadores/ Linguagem C++
Criação de um modelo virtual 2D/ 3D de uma cadeira de rodas e um espaço físico	100	Programação de Computadores/ OpenGL
Projecto e implementação de uma aplicação multimédia de controlo de uma cadeira de rodas	100	Multimédia/ Programação de Computadores
Integração e testes das metodologias desenvolvidas num protótipo simulado de uma cadeira de rodas	140	Integração de Sistemas
Carga horária total	840 horas	

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ENTIDADES ENVOLVIDAS:

Instituição do Ensino Superior: Faculdade de Engenharia da Universidade do Porto

Empresa / Serviço: LIACC - Laboratório de Inteligência Artificial e Ciência de Computadores

Nome do Supervisor: Luis Paulo Gonçalves dos Reis

Nome do Orientador: Pedro Miguel Teixeira Faria

Parecer Global do Estágio: O aluno cumpriu o horário estabelecido, realizou o trabalho proposto com dedicação, escreveu um Muito Bom relatório final de estágio. Do trabalho resultou um protótipo totalmente funcional e um artigo publicado na conferência ComplImage 2006.

MARIA ISABEL FERREIRA DA SILVA, Directora de Serviços da Faculdade de Engenharia da Universidade do Porto:

Certifico, em face de arquivo respectivo, que -----

EDUARDO MANUEL DE CONDADO VALGODE-----

filho de Carlos Eduardo de Campos Valgode-----

e de Maria Manuela de Almeida Afonso Condado Valgode-----

natural da freguesia de Santa Justa-----

concelho de Lisboa-----

distrito de Lisboa-----

concluiu nesta Faculdade no dia dezoito do mês de Julho de dois mil e seis, o curso de Licenciatura em Engenharia Electrotécnica e de Computadores - Ramo de Automação, Produção e Electrónica Industrial, com a classificação final de Catorze valores. -----

A carta da referida licenciatura já foi requerida, e ser-lhe-á entregue oportunamente.

A presente vai firmada com o selo branco desta Faculdade.
Secretaria da Faculdade de Engenharia, 31 de Outubro de 2006

711 A DIRECTORA DE SERVIÇOS
FLEUP

Emit. GA_SDUAR
Emol. 12,50
Conf. Juxxo

MARIA ISABEL FERREIRA DA SILVA, Directora de Serviços da Faculdade de Engenharia da Universidade do Porto:

MARIA ISABEL FERREIRA DA SILVA, Head of the Administration Office of the Faculty of Engineering of the Universidade do Porto:

Certifico, em face de arquivo respectivo, que -----
 Certifies that -----

EDUARDO MANUEL DE CONDADO VALGODE-----
 natural da freguesia de/ born in Santa Justa-----

concelho de Lisboa-----

distrito de Lisboa-----

obteve aprovação às seguintes disciplinas: -----
 was approved in the following courses: -----

Disciplina Course	Classificação Grade (*)	Ano Lect. Academic Year	Data Aprov. Date	Época Period	U.C. C.U.	ECTS
Introdução à Actividade Laboratorial Introduction to Laboratorial Activity	16	1999/00	13/01/2000	N1	3,5	6
Análise Matemática I Mathematical Analysis I	11	1999/00	24/01/2000	N1	3,5	6,5
Química Aplicada à Electrotecnia Applied Chemistry	16	1999/00	26/01/2000	N1	3	5
Algebra Algebra	17	1999/00	11/02/2000	N1	3,5	6
Programação Programming	12	1999/00	16/02/2000	N1	3,5	6,5
Sistemas Digitais Digital Systems	16	1999/00	14/06/2000	N2	3,5	6
Análise Matemática II Mathematical Analysis II	10	1999/00	30/06/2000	N2	3,5	6,5
Introdução à Mecânica Clássica Introduction to Classic Mechanics	10	1999/00	11/07/2000	N2	3,5	6
Teoria dos Circuitos Circuits Theory	10	1999/00	13/07/2000	N2	3,5	6
Análise Numérica Numerical Analysis	14	2000/01	07/02/2001	REC-1	3,5	6
Algoritmos e Estruturas de Dados Algorithms and Data Structures	15	2000/01	20/06/2001	N2-1	3,5	6
Ondas Waves	13	2000/01	04/07/2001	N2-2	3,5	6,5
Sistemas Eléctricos de Energia I Electrical Power Systems I	11	2000/01	24/07/2001	REC-2	3	5,5
Análise Matemática III Mathematical Analysis III	16	2001/02	04/02/2002	REC-1	3,5	6,5
Electromagnetismo Electromagnetism	16	2001/02	08/02/2002	REC-1	3,5	6

Disciplina Course	Classificação Grade (*)	Ano Lect. Academic Year	Data Aprov. Date	Época Period	U.C. C.U.	ECTS
Microprocessadores Microprocessors	18	2001/02	13/02/2002	REC-1	3,5	6
Teoria do Sinal Signal Theory	13	2001/02	15/02/2002	REC-1	3	5,5
Probabilidades e Estatística Probability and Statistics	13	2001/02	13/06/2002	N2-1	3,5	5,5
Física dos Estados da Matéria Physics of Solids, Liquids and Gases	15	2001/02	22/07/2002	REC-2	3	5,5
Circuitos e Sistemas Circuits and Systems	18	2001/02	25/07/2002	REC-2	3,5	6,5
Electrotecnia Teórica Electrical Theory	11	2002/03	08/01/2003	N1-1	3	5,5
Electrónica I (A) Electronics I (A)	15	2002/03	17/01/2003	N1-1	3,5	5,5
Instrumentação e Medidas Instrumentation and Measurements	17	2002/03	14/03/2003	N1-1	3,5	6
Automação Industrial (A) Industrial Automation (A)	15	2002/03	16/06/2003	N2-1	3,5	6
Electrónica II (A) Electronics II (A)	10	2002/03	17/07/2003	REC-2	3,5	6
Instalações Eléctricas (A) Electrical Installations (A)	12	2002/03	23/07/2003	REC-2	3	6
Sensores e Instrumentação (A) Sensors and Instrumentation (A)	17	2002/03	31/07/2003	N2-1	3,5	6
Sistemas de Automação Automation Systems	14	2003/04	12/01/2004	N1-1	3,5	5,5
Máquinas Eléctricas I (A) Electrical Machines I (A)	15	2003/04	23/01/2004	N1-1	3,5	6,5
Teoria dos Sistemas Systems Theory	13	2003/04	10/02/2004	REC-1	3,5	6,5
Electrónica de Potência Power Electronics	11	2003/04	17/02/2004	REC-1	3,5	6,5
Instrumentação Electrónica Electronic Instrumentation	16	2003/04	01/07/2004	N2-1	3	6
Telecomunicações I (A) Telecommunications I (A)	12	2003/04	13/07/2004	REC-2	3,5	6
Sistemas de Accionamento e Movimentação Electrical Drives and Handling Systems	16	2003/04	20/07/2004	REC-2	3,5	6,5
Sistemas Baseados em Microprocessadores Systems Based on Microprocessors	13	2003/04	26/07/2004	N2-1	3,5	6
Controlo Digital Digital Control	13	2004/05	11/01/2005	N1-1	3,5	6
Fundamentos de Sistemas de Informação Fundamentals of Information Systems	12	2004/05	24/01/2005	N1-1	3,5	6,5
Investigação Operacional Operational Research	11	2004/05	09/02/2005	REC-1	3	5,5

Disciplina Course	Classificação Grade (*)	Ano Lect. Academic Year	Data Aprov. Date	Época Period	U.C. C.U.	ECTS
Qualidade Quality	14	2004/05	14/02/2005	REC-1	3,5	6
Análise de Sistemas e Gestão de Projectos System Analysis and Project Management	16	2004/05	14/02/2005	N1-1	3	6
Robótica Robotics	16	2004/05	20/06/2005	N2-1	3	6
Sistemas Baseados em Lógica Difusa Fuzzy Logic Based Systems	15	2004/05	21/06/2005	N2-1	3	6
Tecnologia de Sistemas de Controlo e Automação Control and Automation Technology	A (equiv)	2005/06	18/02/2006		3	6
Sistemas de Electrónica Power Electronics Systems	A (equiv)	2005/06	18/02/2006		3	6
Economia e Gestão Economics and Management	A (equiv)	2005/06	18/02/2006		3,5	6
Redes de Computadores Computer Networks	12	2005/06	15/06/2006	N2-1	3	5,5
Projecto, Seminário ou Trabalho Final do Curso (A) Project, Seminar or End of Course Work (A)	18	2005/06	18/07/2006	N2-1	10	24

(*)Classificações atribuídas numa escala de 0 a 20 (aprovação a partir de 10)
 Grades awarded on a scale of 0-20 (pass mark 10)

do curso de Licenciatura em Engenharia Electrotécnica e de Computadores - Ramo de
 Automação, Produção e Electrónica Industrial, desta Faculdade.
 of the Graduate Degree in Electrical and Computers Engineering - Specialising in Automation,
 Prod. and Industrial Electronics, of this Faculty.

A presente vai firmada com o selo branco desta Faculdade.
 This Document is authenticated with the stamp of this Faculty

Secretaria da Faculdade de Engenharia, 07 de Novembro de 2006.
 Academic Services of the Faculty, 07th of November 2006.

Pat A DIRECTORA DE SERVIÇOS
 Signature of the Head of the Administration Office of the Faculty

Emit. GA_SDUAR
 Emol. € 27,50



Mr. Eduardo Valgôde

successfully completed our course

*Memory Test Systems
Applications-I*


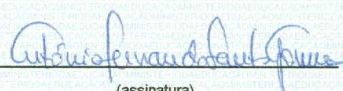
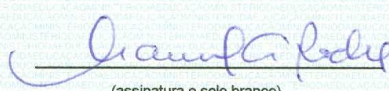
February 5 - 9, 2007


Siegfried Hein
Instructor


Gary Sheedy
Manager Engineering

ADVANTEST®



 R. P.	
MINISTÉRIO DA EDUCAÇÃO	DIPLOMA
COLÉGIO INTERNATO DOS CARVALHOS	DE ENSINO SECUNDÁRIO
<p>Manuel António da Rocha Fontes Santos, Director Pedagógico do Colégio Internato dos Carvalhos faz saber que EDUARDO MANUEL DE CONDADO VALGÔDE, titular do Bilhete de Identidade nº11984218, emitido em 06/06/1997, Lisboa, concluiu, no ano escolar de 1998/1999, O CURSO SECUNDÁRIO CIENTÍFICO-TECNOLÓGICO DE ELECTRÓNICA (aprovado para funcionamento neste Colégio pelo Despacho 182/ME/96, de 05/08 com a Rectificação nº338/97, de 26/05), com a classificação final de 18 (dezoito) valores, pelo que, para os efeitos legais, lhe é passado o presente DIPLOMA DE FIM DE ESTUDOS SECUNDÁRIOS, que vai assinado e autenticado por mim e pelo Chefe dos Serviços de Administração Escolar. Consta do Livro nº 7 a Fls.169.</p> <p style="text-align: right;">Colégio Internato dos Carvalhos, em 5 de Agosto de 2004</p>	
O Chefe dos Serviços de Administração Escolar	O Director Pedagógico
 (assinatura)	 (assinatura e selo branco)

Classificações finais das disciplinas que integram o curso:**Formação Geral**

Português B	15	(quinze) valores.
Introdução à Filosofia	16	(dezasseis) valores.
Língua Estrangeira I ou II (Inglês)	18	(dezoito) valores.
Educação Física	15	(quinze) valores.
Ética	16	(dezasseis) valores.

Formação Específica

Matemática	18	(dezoito) valores.
Ciências Físico-Químicas	19	(dezanove) valores.
Física	16	(dezasseis) valores.
Desenho e Geometria Descritiva B	16	(dezasseis) valores.

Formação Técnica

Teoria da Electricidade	19	(dezanove) valores.
Electrónica	19	(dezanove) valores.
Sistemas Digitais	19	(dezanove) valores.
Laboratórios	19	(dezanove) valores.
Electrónica Industrial	19	(dezanove) valores.
Telecomunicações	19	(dezanove) valores.



UNIVERSITY of CAMBRIDGE
Local Examinations Syndicate
INTERNATIONAL EXAMINATIONS

Certificate in Advanced English

This is to certify that
EDUARDO MANUEL DE CONDADO VALGÔDE

has been awarded
CERTIFICATE GRADE C

in the Examination for the
Certificate in Advanced English

Date of Examination **JUNE 2000**
Place of Entry **OPORTO**
Reference Number **006PT0055106**

Certificate Number **4340778**

A handwritten signature in black ink, likely of the Vice-Chancellor.

Vice-Chancellor
University of Cambridge

**FEUP**

Faculdade de Engenharia da Universidade do Porto

DEEC > DEPARTAMENTO DE ENGENHARIA ELECTROTÉCNICA E DE COMPUTADORES

Carta de Recomendação

Conheço bem o Eng. Eduardo Manuel de Condado Valgôde e o seu trabalho. Por diversas ocasiões tive oportunidade de orientar e avaliar o seu trabalho durante a licenciatura e acompanhei e avaliei o seu projecto de final de curso que versava sobre comando inteligente de uma cadeira de rodas autónoma onde apresentou um desempenho notável. Em todas as situações deu mostra de fácil trato pessoal e ampla gama de conhecimentos tanto a nível de hardware como a nível de software. Posso ainda afiançar que sempre revelou elevada capacidade tanto de compreensão como de execução. Acompanhei ainda algum do trabalho por ele produzido recentemente e posso afirmar que se trata de uma pessoa com elevada capacidade de trabalho científico e com forte vontade de aprendizagem contínua.

Pelas razões expressas, julgo que o Eng. Eduardo Manuel de Condado Valgôde será um excelente candidato a Doutor e recomendo fortemente a sua admissão no programa Doutoral MAP-I..

Porto, 2 de Maio de 2008

Armando Jorge Miranda de Sousa,
(Prof. Auxiliar FEUP, DEEC)

From: "Luis Paulo Reis" <lpreis@fe.up.pt>
To: <mapi@map.edu.pt>
Subject: Letter of Recommendation - Eduardo Valgode
Date: Thu, 8 May 2008 13:36:31 +0100

Letter of Recommendation MAP-I - Eduardo Valgôde

Eduardo Valgôde has been my student in FEUP's Electrical and Computer Engineering programme that he concluded with a final grade of 14.4 (out of 20). I also supervised his final research project, conducted under the POCI internship programme, and held at LIACC ~ Artificial Intelligence and Computer Science Lab of the University of Porto. It consisted in developing a facial expression's recognizer using color segmentation and neural networks to be used for controlling an intelligent wheelchair prototype under development at LIACC. In this project Eduardo showed excellent research capabilities, producing conceptual and written scientific work of excellent quality. The project was very successful and Eduardo got a final grade of 18 (out of 20) and was able to publish several papers in known international conferences.

After completing the project Eduardo moved to Qimonda S.A. where he worked for about one year. However, Eduardo found the scientific research a lot more interesting and motivating and soon contacted me to enrol in a PhD programme under my supervision. He decided to quit Qimonda last February (that had proposed a good contract to him) and spend the next six months preparing his research work before enrolling in a PhD programme. This shows his motivation that associated to the previously shown research capabilities make Eduardo a very good candidate for MAP-I.

In fact, due to his huge motivation and excellent research skills, I believe he his the perfect candidate for MAP-I doctoral programme.

Porto, May 4th of 2008,

Luis Paulo Reis