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## Curriculum Vitae

**Dr. Fátima C. C. Dargam Perz**

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### Personal Data

<b>Full Name:</b>	Fátima Cristina Canazaro Dargam Perz
<b>Name used in Publications:</b>	Fátima C. C. Dargam
<b>Date / Place of Birth:</b>	12 May 1960 / Rio de Janeiro
<b>Nationality:</b>	Brazilian
<b>Marital Status:</b>	Married
<b>Children:</b>	2 Sons (10/01/1998; 08/07/2000)
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### Academic Formation

#### 1990 – 1996    **Doctor Degree in Computer Science (Ph.D.)**

<b>Field of Study:</b>	Artificial Intelligence, Logic & Automated Reasoning
<b>Institution:</b>	University of London, Imperial College, Dep. of Computing
<b>Location:</b>	London, England
<b>Duration:</b>	Oct.90 / Oct.96 (PhD Thesis Examination: 08/10/96)

#### 1987 – 1989    **Master Degree in Computer Science (M.Sc.)**

<b>Field of Study:</b>	Artificial Intelligence, Expert Systems
<b>Institution:</b>	Engineering Military Institute IME-RJ
<b>Location:</b>	Rio de Janeiro, Brazil
<b>Duration:</b>	Jan.87 / Mar.89 (M.Sc. Thesis Examination: 17/03/89)

#### 1978 – 1983    **Diploma in Electronics Engineering**

<b>Field of Study:</b>	Digital Electronics
<b>Institution:</b>	Santa Ursula University USU-RJ
<b>Location:</b>	Rio de Janeiro, Brazil
<b>Duration:</b>	Aug.78 / Jul.83

#### 1982 – 1983    **Bachelor Degree in English (B.A.)**

<b>Field of Study:</b>	English Language, Literature and Teaching Didactics
<b>Institution:</b>	Santa Ursula University USU-RJ
<b>Location:</b>	Rio de Janeiro, Brazil
<b>Duration:</b>	Mar.82 / Dec.83

## Awarded Research Grants

- 1987 – 1989** Scholarship for the M.Sc. studies from CNPq – Brazilian National Council for Research and Development. Duration: 2 years.
- 1990 – 1995** Scholarship for the Ph.D. studies from CNPq - Brazilian National Council for Research and Development. Duration: 4 1/2 years.

## Professional Affiliations

<b>CREA</b>	Brazilian Regional Council for Engineers and Architects
<b>CNPq</b>	Brazilian National Council for Research and Development.
<b>AAAI</b>	American Association for Artificial Intelligence
<b>IFIP</b>	International Federation for Information Processing
<b>IFIP-WG8.3</b>	IFIP Working Group 8.3 on Decision Support Systems
<b>EURO</b>	Association of the European Operational Research Society
<b>EWG-HCP</b>	EURO Working Group on Human Centered Processes
<b>EWG-DSS</b>	EURO Working Group on Decision Support Systems (Founding member of EWG-DSS, since 1989)

## Research Interests

The main area of research lies within Artificial Intelligence & Knowledge Management. Research interests include: Theory and Applications of Inconsistent Knowledge; Representation of Actions and Plans in Dynamic Domains; Non-monotonic Reasoning, Belief Revision and Updates, Multi-agent Systems, Expert Systems, Intelligent Computer Aided Engineering Systems and Decision Support Systems.

In the area of Decision Support Systems, many different research projects were carried out over the years, including cooperative DSS and Negotiation Systems. Since 2002, more emphasis has been given to projects concerning the modeling and the implementation design of Decision Support Systems to support planning of Distance Education Courses.

## Recent Research Work

- Implementation and evaluation of Decision Support Systems for planning Distance Education courses using two different architectures: a client / server specific implementation, and a co-operative and distributed framework based implementation. (Joint-research with T. Barnhart; P. Zarate and A. Gachet).
- The use of Ontology for codifying DSS application's data as a knowledge management tool. (Joint-research with A. Branco).
- Finite Base Revision methods applied to Decision Support Systems & Negotiation System's Knowledge Management.
- Exploiting Probabilistic Models & Information Entropy for the Design of Intelligent Decision Systems.

## Main Professional & Research Experience

### 1983 – 1990

**Period:** From May. 1983 to Sep. 1990  
**Position:** Engineer; Head of the Computer Graphics Group  
**Institution:** Brazilian Navy Research Institute - IPqM  
**Location:** Rio de Janeiro, RJ, Brazil

Worked as an engineer at IPqM, in charge of the Computer Graphics Division of the Informatics Group. Basically, the nature of the work carried out in the Computer Graphics Division, concerned the use of CAD-CAM systems for electrical applications, involving the design and test of Printed Circuit Boards.

During this time, research and development of expert systems and decision support systems were also carried out, for the defense application of electronic warfare. That research led to a Masters dissertation's development, which concerned of an expert system applied to the specific field of electronic warfare for a naval environment. The thesis work was directed to aid the process of decision-making concerning the electronic countermeasures to be adopted, aiming at deceiving or neutralizing a threat previously identified during a military conflict. This system was implemented using OPS5 (Official Production System - V.5).

### 1988 – 1990

**Period:** From May. 1988 to Sep. 1990  
**Position:** Researcher  
**Institution:** Instituto de Logica Filosofia e Teoria da Ciência ILTC-RJ  
**Location:** Rio de Janeiro, RJ, Brazil

Intensively cooperated in research for two years with the Institute of Logics, Philosophy and Theory of Science in Rio. Related activities in ILTC included the research and development of multimedia systems for educational applications, using artificial intelligence techniques, as well as investigation of knowledge based systems, knowledge representation, and neural networks.

Since October 1990, acts as a senior research consultant for ILTC (currently called "Instituto Doris Aragon - ILTC"), with participation in the following research projects: RECOPE – IA "*Intelligent Systems for Engineering Applications*", financed by FINEP and coordinated by UFSCar, involving 11 Brazilian research groups in the area of Artificial Intelligence; and CLoP – "*High Efficiency Systems for Constraint Logic Programming*", financed by CNPq and coordinated by UFRJ.

### 1990 – 1995

**Period:** From Sept. 1990 to May 1995  
**Position:** Researcher (Ph.D. Candidate)  
**Institution:** Imperial College - Department of Computing  
**Location:** London, England

Researcher of the Logic and Automated Reasoning Section in the Department of Computing at Imperial College. The Ph.D. studies were undertaken with the supervision of Prof. Dov Gabbay (now Professor in Kings College). The Ph.D. thesis, entitled: *On Reconciling Conflicting Updates: A Compromise Revision Approach*, proposed a method for handling logically conflicting inputs into knowledge bases in a compromised way. The proposed approach caters for the specific case where compromised solutions for revising knowledge bases apply,

when conflicts involving updates occur. The method revises finite bases which are subjected to some integrity constraints, and performs a reconciliation of the conflicting data, by allowing the consistent logical consequences of the given up database elements or inputs, to update the database as a compromise. In comparison with approaches that require preference among conflicting inputs, or that avoid them by canceling them out completely, the proposed approach fits as an alternative which provides more informative results.

During the time at Imperial College, participated also as an occasional research cooperater of the project MEDLAR "*Mechanized Deduction in Logic and Automated Reasoning*", an ESPRIT European project on practical reasoning, involving over 15 major European research groups of the area.

## Since 1996

**Period:** August 1996 – to date  
**Position:** Software Engineer (Research & Development)  
**Institution:** SimTech Simulation Technology  
**Location:** Graz, Austria

Joined the company SimTech Simulation Technology in Austria, in 1996. At SimTech, the work carried out concerns research and development of application software modules supporting computer-based simulations. SimTech is a company that provides state-of-the art tools and services for the analysis and optimization of energy systems. Based on several years of experience, it develops and markets software for design and performance analysis of energy systems and for optimizing plant operations.

## Other Relevant Activities & Experience

- Senior Research Consultant for ILTC, Rio de Janeiro, Brazil (currently called "Instituto Doris Aragon - ILTC").
- Member of the Programme Committee of the CIDMDS-2006, International Conference on Creativity and Innovation in Decision Making and Decision Support, London, UK, June-July 2006.
- Guest Editor (together with Pascale Zaraté) of the Special Issue on "*Decision Support Systems: Methodologies & Applications*" of the Journal of Decision Systems (JDS), Hermes, (to appear, 2006).
- Guest Editor (together with António Rodrigues) of the Special Issue on "*Methods and Strategies for Decision and Management Problems*" of the Central European Journal of Operations Research (CEJOR), Springer-Verlag, (to appear, 2006).
- Co-editor of the "EWG-DSS Newsletter", Communications of the Association of European Operational Research Societies - EURO Working Group on Decision Support Systems, since 2002.
- Organizer of the 16<sup>th</sup>. EWG-DSS Meeting/Workshop, to happen in Graz, Austria, within the Joint-Workshop on Decision Support Systems, Experimental Economics and e-Participation, on June 5-7<sup>th</sup>, 2005.  
(<http://www.uni-graz.at/soowww/eCube>).

- Invited talk on “Intelligent Cooperative Decision Support Systems”, at the Department of Computer Science, University of Salzburg, Salzburg, Austria, April 2005.
- Referee for the European Journal of Operational Research (EJOR), Elsevier, in 1997, 2001 & 2003.
- Referee for the Journal of Decision Systems (JDS), Hermes, in 2002.
- Vice-President of ILTC, Instituto de Lógica e Teoria da Ciência, Rio de Janeiro, Brazil, from July 1997 to July 1999.
- Organization and Moderation of the Series of Seminars in Artificial Intelligence at ILTC, Instituto de Lógica e Teoria da Ciência, Rio de Janeiro, Brazil (1997-2000).
- Invited talk on “The Development of Multimedia Systems in ILTC”, at the “Istituto di Cibernetica Eduardo Caianiello” – CNR, Naples, Italy, Oct. 1997.
- Session-Chair in the 7<sup>th</sup> EURO Conference on Decision Support Systems, Groupware Multimedia, and Electronic Commerce, in Bruges, 1997.
- Invited talk on “Decision Support Systems and Expert Systems”, at ILTC, Instituto de Lógica e Teoria da Ciência, Rio de Janeiro, Brazil, 1997.
- Invited talk on “Supporting Decision Making via Compromise Revision”, at ILTC, Instituto de Lógica e Teoria da Ciência, Rio de Janeiro, Brazil, 1997.
- Invited talk on “The Implementation of a Decision Support System within a Power Plant Design Environment”, at ILTC, Instituto de Lógica e Teoria da Ciência, Rio de Janeiro, Brazil, 1997.
- Co-organizer of the “Third International Conference on Theorem Proving with Analytic Tableaux and Related Methods”, Abingdon, Oxford, U.K. May 1994.
- Teaching Tutor for the Programming Languages Lab. Courses of the Computer Sciences Graduate Study at the Department of Computing, Imperial College, London, U.K. (1992-1994).
- Seminars on “The OPS5 Language” & “Developing Expert Systems with OPS5”, as invited speaker of the CAVIAR - Advanced Course on Artificial Intelligence, promoted by Petrobras, Rio de Janeiro, Brazil, July 1989.
- Professional Visits and Participation on the Autograph-Gerber CAD-CAM (Computer-Aided-Design & Computer-Aided-Manufacturing) Users Meeting, representing the Brazilian Navy Research Institute (IpqM), at Gerber Systems Technology, Connecticut, USA, May 1984 & July 1988.
- Teaching experience as a “Teacher of English as a Foreign Language”, for basic and advanced levels, at the private English course CCAA (Centro de Cultura Anglo-Americana), Rio de Janeiro, Brazil (1978-1989).

## Other Courses & Seminars

- Participation in seminars about Communication & Motivation; Team-Work & Cooperation; Cooperative Conflict Control; Project Management; Presentation Techniques; Time Management; Industrial Law; Visualization & Presentation. KISS Program, promoted by BFI-Graz & County of Styria, Austria, (2002-2004).
- Participation on the 4<sup>th</sup>. European Summer School in Logic, Language and Linguistics. University of Essex, Colchester, Essex, U.K. August 1992.
- Participation on the NATO-ASI Advanced Study Institute on Recent Developments in Decision Support Systems, promoted by the NATO Science Committee & Scientific Affairs Division. Il Ciocco, Italy, June 1991.
- Participation on the IV EURO Summer Institute on Decision Support Systems, promoted by the Association of the European Operational Research Society. Madeira Island, Portugal, May-June 1989.
- Course on Advanced Topics on Knowledge Engineering, promoted by IBM – ILAT Latin American Institute of Technology, Rio de Janeiro, Brazil, Jan. 1989.
- Participation on the VI School of Computation, promoted by UNICAMP - Campinas University, Campinas, Sao Paulo, Brazil, July 1988.
- Participation on the III EBAI – Brazil-Argentina Informatics School, promoted by SEI & UNICAMP, in Curitiba, Brazil. (Final exam results in 15<sup>th</sup>. place among 250 participants), Jan. 1988.
- Computer-Aided-Design & Computer-Aided-Manufacturing (CAD-CAM) Course on Printed Circuit-Board Application, at Gerber Systems Technology, Connecticut, USA, May-July 1984.

## Language Courses & Certificates

- Complete English Language Course at CCAA (Centro de Cultura Anglo-Americana) including one year of Teaching Didactics and English-& American Literature, Rio de Janeiro, Brazil, (1970-1977).
- Certificate of “Proficiency in English”, promoted by the University of Michigan English Language Institute, Ann Arbor, Michigan, USA, 1981.
- Certificate of the “Test of English as a Foreign Language” - TOEFL (score: 600 points), promoted by the Overseas Institutional Testing Program, Princeton, New Jersey, USA, 1990.
- German Language Course (basic levels) at the Goethe-Institute, London, U.K. (1991-1992).
- German Language Course (basic and intermediate levels) at Urania, Graz, Austria, (1995-1999).
- German Conversation and Writing-practice Seminars, promoted by the KISS Project, BFI-Graz, Austria, (2002-2004).

## References

- Prof. Dov Gabbay, Department of Computer Science, King's College, London, England. Email: [dg@dcs.kcl.ac.uk](mailto:dg@dcs.kcl.ac.uk).
- Prof. Emmanuel Lopes Passos, ICA – Department of Electrical Engineering, PUC Pontifícia Universidade Católica do Rio de Janeiro, Rio de Janeiro, Brazil. Email: [emmanuel@ele.puc-rio.br](mailto:emmanuel@ele.puc-rio.br).
- Prof. Gerhard Brewka, Computer Science Department, University of Leipzig, Leipzig, Germany. Email: [brewka@informatik.uni-leipzig.de](mailto:brewka@informatik.uni-leipzig.de).
- Prof. Jochen Pfalzgraf, Department of Computer Science, Salzburg University, Salzburg, Austria. Email: [jpfalz@cosy.sbg.ac.at](mailto:jpfalz@cosy.sbg.ac.at).