





















**INI-GraphicsNet** 

### Curriculum Vitae

Professor Dr.-Ing. Dr. h. c. mult. Dr. E. h. Hon. Prof. mult. José Luis Encarnação

José Luis Encarnação was born in Portugal, passed the Escola Salesiana do Estoril, and is living in the Federal Republic of Germany since 1959. He is a full professor of Computer Science at the Technische Universität Darmstadt and the head of the Interactive Graphics Research Group (TUD-GRIS).

Under his guidance, the INI-GraphicsNet (International Network of Institutions for advanced education, training and R&D in Computer Graphics technology, systems and applications) was established which now comprises the following institutions:

Zentrum für Graphische Datenverarbeitung (ZGDV), Darmstadt (founded 1984) and Rostock (1990), Fraunhofer Institute for Computer Graphics (IGD), Darmstadt (1987) and Rostock (1992), Fraunhofer Center for Research in Computer Graphics (CRCG), Providence, USA (1992), Centro de Computação Gráfica (CCG) Coimbra/Guimarães, Portugal (1993), Centre of Advanced Media Technology (CAMTech), Singapore (1998), Fraunhofer Application Center for Computer Graphics in Chemistry and Pharmaceutics (AGC) Frankfurt (1999) and the Center for Visual Interaction and Communication Technologies (VICOMTech), San Sebastian, Spanien (2001). In all these institutions, Professor Encarnação is either director, president or chairman of the board.

Today, the INI-GraphicsNet with more than 350 full-time employees, 500 part-time student employees and a total budget of more than 80 million DM (which is more than 40 million EURO) represents one of the largest groups for visualization technologies, new media and visual communication worldwide.

In the INI-GraphicsNet, between 60-80 B.Sc. and M.Sc., as well as 9 Ph.D. theses are annually supervised and submitted under the responsibility of Professor Encarnação and successfully accepted for the corresponding degrees. Since 1975 he has accompanied 105 Ph.D. candidates and supervised more than 850 diploma theses.

As a private business support he established the INI-GraphicsNet Investitions Holding GmbH in 1999 and the INI-GraphicsNet Foundation (in which he is founder, chairman of its advisory board and of the board of directors) also in 1999. It is the aim of this foundation to support the marketing of research results out of the INI-GraphicsNet and to actively promote the creation of spin-offs, such as CAPCom (1996), MediaSec Technologies, USA (1996), MedCom (1997), vrcom (1998), MediTEQ, USA (2000), GISTec (2001), OTLO (2001), Polygon (2001), INI-Novum (2001), ATLC, USA (2001), Cybernarium (2001), CGMT, Singapore (2002) and Meticube, Portugal (2002). Further spin-offs are being under consideration or already in the realization phase.

Spin-offs





















# Academic Career and Scientific Activities

Professor Encarnação holds a diploma (Dipl.-Ing.) and a doctorate (Dr.-Ing.) in electrical engineering from the Technical University of Berlin where he completed his studies as a holder of a scholarship of the Gulbenkian Foundation. In 1967, he started his career in computer graphics at the Technical University of Berlin. Before coming to Darmstadt, he held research and academic positions at the Heinrich-Hertz-Institute in Berlin (1968-1972) and at the University of Saarbrücken (1972-1975). He is author or co-author of many books and proceedings in German and in English language dealing with computer graphics, visualization, interaction, and related applications. He is the author of several textbooks on computer graphics and CAD in English and in German language (some of these books were also translated into Chinese, Hungarian, Italian, Portuguese and Russian language). He is author or co-author of more than 500 publications and technical essays in internationally reviewed journals and renown conferences. He is member of the editorial board of several important professional journals and the Editor-in-Chief of Computers & Graphics, an international journal on computer graphics published by Elsevier Science since 1975.

He chaired the DIN (German Standardisation Body) activities in the area of graphics standardisation, from which GKS and follow-up graphics and related standards evolved in the 80s, and then established the DIN groups responsible for computer graphics and related standards. In this responsibility he also had an important function in the ISO standard committees for several years.

Activities in Research Institutions

Professor Encarnação was one of the founders of EUROGRAPHICS, the European Association for Computer Graphics; from 1980 to 1984 he was its chairman. From 1985 to 1991 he was chairman of its Professional Board. In addition, he was a member of the Executive Board of the German Computer Society (GI) from 1985 to 1990, and from 1983 to 1993 he was also chairman of its Technical Committee for Computer Graphics (GI-FA 4.1), which was founded and established by himself; and he is now member of this committee since 1993. He is a member of the board of the Technical Division for Information Technology and Industrial Applications of Computer Science (GI-FB 4). Professor Encarnação was the German representative to the Technical Committee 5 of the International Federation for Information Processing (IFIP TC5, Computers in Industry) from 1989 to 2001. From 1987 to 1994 he was the chairman of its Working Group 5.10 (IFIP WG5.10, Computer Graphics). He is member of ACM, ACM-SIGGRAPH, IEEE and VDE (Association of German Electrical Engineers).





















### Committees and Associations

Besides his activities as university professor in Darmstadt, he also gives lectures at various universities worldwide. With regard to computer science, information technology and, especially, computer graphics, he serves as a senior advisor to governments, to industry, and several international agencies. He holds leading positions in supervisory boards, management, and advisory boards of several national and international companies and research institutions. He is involved in several international R&D and educational cooperation programs.

From 1995 to 2001 he was an elected member of the Senate of the Fraunhofer-Gesellschaft, Munich. Since July 2001 he is the chairman of the Fraunhofer ICT Group (Information and Communication Technology Group consisting of 15 institutes with about 2,000 employees and a total budget of about 190 million EURO in 2002) which was created after the merger of FhG and GMD (German National Research Center for Information Technology). Since 1995 he is a member of the Münchner Kreis (Supranational Association for Communications Research). He was a member of the advisory board of the Bertelsmann Foundation on »University Evolution through New Media« (1998-2000) and the German chairman of the »German-American Panel on Technology Transfer« (1995/96). From 1998 to 2000 he was a member of the German-American Academic Council (GAAC). Since 1995 he is an elected senior technical reviewer and advisor to the German Science Foundation (DFG). In March 1999 he was nominated by the German Ministry for Research (BMBF) as a member of the supervisory board of the national program to promote spin-offs out of universities (»EXIST - Existenzgründer aus Hochschulen«). He was vice-chair of the Advisory Board for Research an Technology of the State of Hesse (Germany), and in 1991 he chaired the board. Since 2000 he is member of the Advisory Board of the German Telekom Business Academy (TBA) and also since 2000 he is member of the Board of Advisors of the School of Creative Media in Hong Kong. In 2000/2001 he was member of the evaluation commission for information technologies in the state of Baden Württemberg (Germany).

## Awards and Prizes

Besides several honours, he was awarded with the German Federal Service Cross in 1983 and with the German Federal Service Cross First Class in 1996. The country of Portugal honoured him with the »Ordem Militar de Sant'lago de Espada« in 2001.

In 1992, he was awarded the »Silver Core« of the International Federation for Information Processing (IFIP). He has been nominated »Fellow« of the EUROGRAPHICS Association in 1987 and »Fellow« of the Association for Computing Machinery (ACM) in 1996. In 2001 he received the Fraunhofer Medal which is the highest award of the Fraunhofer-Gesellschaft.

The title of an Honorary Professor was conferred to Professor Encarnação by the Zhejiang University in Hangzhou, China, in 1991, and by the Universidade Estadual de Campinas in São Paulo, Brazil, in 2001; he was given the honorary doctorate (Dr. h.c.) by the Universidade Técnica de Lisboa, Portugal, in 1991, by the University of Rostock, Germany, (Dr. E.h.) in 1996, and by the Universidade do Minho, Braga/Guimarães, Portugal (Dr. h.c.) in 2002. In 2001 the title of an Honorary Senator was conferred to him by the University of Maribor, Slovenia.





















The German Federal State of Hesse awarded to him the »Hessischer Kulturpreis« in 2000 in recognition of his scientifc achievements. In 2001 he was elected full member of the »Berlin-Brandenburgische Akademie der Wissenschaften«.

For outstanding technical and scientific achievements he received the Karl-Heinz-Beckurts Award in 1989. He was the recipient of the Steven A. Coons Award from ACM-SIGGRAPH in 1995 and the recipient of the Konrad-Zuse-Medal by the German Computer Society (GI) in 1997. In 2001 he was honoured with the »Technologiepreis der Eduard-Rhein-Stiftung«. All of them being high awards for outstanding and very important technical and scientific achievements.

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