

Name (Nombre)

- Trung T. Pham

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**Education
(Educación)**

- 1979-1983: Rice University, Houston, Texas, USA (Rice Endowment Scholarship, Texas Valedictorian Scholarship, Welsh Foundation Scholarship) BSEE (1983). Senior thesis: Spectral Analysis of Semblance between Digital Signals. Thesis advisor: Tom Parks.
- 1984-1986: Rice University, Houston, Texas, USA (Office of Naval Research Fellowship) MSEE (1986). Thesis: l_p Deconvolution of Non-Gaussian Random Noises. Thesis advisor: Rui J. P. deFigueiredo.
- 1986-1990: Rice University, Houston, Texas, USA (The National Aeronautic and Space Administration Fellowship) PhD (1991). Thesis: Automatic Navigation of Free-Flying Robots with Obstacle Avoidance. Thesis advisor: Rui J. P. deFigueiredo.
- 1991-1994: University of Houston, Houston, Texas, USA (McDonnell Douglas Aerospace Scholarship) MBA (1994).

**Employment History
(Historia de Empleo)**

- 2008 - present: The University of Talca, Talca, Chile. Visiting Lecturer, Responsibilities: Teach classes in Project & Thesis, Project Management, Software Design & Analysis, Electronic Commerce, and Operating Systems & Networking.
- 2000 - 2008: DÍcentral Corporation, Houston, Texas. Chief Technology Officer / Part Owner, Responsibilities: Establish technical policy, technical path, and technical vision for the company. Direct R&D effort in machine translation, web deployment, and concurrent/parallel computation.
- 1998 - 2000: University of Houston - Clear Lake, Houston, Texas. Instructor, Responsibilities: Taught graduate classes in Object Oriented Programming (C++, and Java), Computer Operating Systems, and Management of Information Systems; and undergraduate class in Programming with HTML.
- 1993, 1994, 2005, 2006, 2007: University of Houston - Central

Campus, Houston, Texas. Adjunct Professor, Responsibilities: Taught undergraduate classes in Object Oriented Programming (C++), Introduction to Control System, and graduate class in Introduction to Neural Networks.

- 1995 - 1998: DDMS, Inc., Houston, Texas. Technical Director, Responsibilities: Directed and managed technical contracts on development of branch/division information systems for Johnson Space Center of the National Aeronautics and Space Administration.
- 1993 - 1995: Tenagra Corporation, Houston, Texas. Senior Program Analyst & Principal Investigator, Responsibilities: Conducted NASA-SBIR research project on machine vision for Johnson Space Center of the National Aeronautics and Space Administration. Designed and maintained mission control software for The Space Industries, Inc.
- 1989 - 1993: McDonnell Douglas Aerospace, Houston, Texas. Staff Engineer & Principal Investigator, Responsibilities: Integrated and implemented automated robotics system for the Space Station Program. Conducted independent research and development project on fuzzy logic and control.
- 1986 - 1989: Lockheed, Houston, Texas. Senior Engineer, Responsibilities: Designed and implemented automatic navigation (path planning) and manipulator control modules of EVA Retriever Space Robot for Johnson Space Center of the National Aeronautics and Space Administration..
- 1984 - 1986: AMF GeoSpace, Houston, Texas. Process Engineer, Responsibilities: Designed and implemented geophysical signal processing software (noise filtering, spectral balancing), designed and implemented 3-D graphics of seismic signals.
- 1983 - 1984: Seiscom Delta United, Houston, Texas. Software Engineer, Responsibilities: Designed and implemented geophysical signal modeling software (Maxwell equations).

**Professional
Participation
(Participación
Profesional)**

- 2001 - present: The Institute of Electrical and Electronics Engineers (IEEE) Member (2001), Senior Member (2005)
- 2001 - present: The International Society of Automation (ISA) Member (2001), Senior Member (2003)
- 2006 - present: Review Committee Member, Journal of Theoretical and Applied Electronic Research

**Classes
(Clases)**

- 2008 - present: Universidad de Talca, Talca, Chile
 - 2009 - present: Taller de Proyecto Informático (Projects and Thesis)
 - 2009 - present: Diseño y Análisis de Software (Software Design and Analysis)
 - 2009 - present: Introduction to Electronic Commerce.
 - 2009 - present: Gestión de Proyectos (Project Management)
 - 2008 - 2009: Sistemas Operativos y Redes (Operating Systems and Networking)
- 1993 - 2007: University of Houston - Central Campus, Houston, Texas
 - 2005: Introduction to Neural Networks

- 2005 - 2007: Object Oriented Programming in C++
- 1993 - 1994: Introduction to Control Theory
- 1998 - 2000: University of Houston - Clear Lake, Houston, Texas
 - 1998 - 2000: Management of Information Systems
 - 1998 - 2000: Operating Systems and Networking
 - 1998 - 2000: Programming with Java
 - 2000: Programming with HTML

Books
(Libros)

- Programming with Barcodes, *work in progress* (2012 - present)
- Introduction to Electronic Commerce, *work in progress* (2011 - present)
- Project Management, Vol. 1: Theory, and Vol. 2: To be a Good Manager, *work in progress* (2011 - present)
- Software Design and Analysis, Vol. 1 & 2, *under review by The University of Talca Press* (2011)
- *Introduction to Fuzzy Systems*. Boca Raton, FL: Chapman & Hall (2005). (co-author: G. Chen)
- *Introduction to Fuzzy Sets, Fuzzy Logic, and Fuzzy Control System*. Boca Raton, FL: CRC Press (2001). (co-author: G. Chen)

Thesis Supervision
(Tesis de Supervisión)

- Knowledge Based System for Automatic Navigation of Unmanned Aerial Vehicle (Francisca López, y Betzabeth González), IIE, Universidad de Talca, 2012.
- *Sistema Web de Apoyo a Gestión Jurídica y Financiera* (Francisca Quiñones), IIE, Universidad de Talca, 2011.
- *Implementación de Comercio Electrónico para Multicentro* (Héctor Muñoz), IIE, Universidad de Talca, 2011.
- *Proyecto e-CRM PyME: Creación de valor B2C para la pequeña y mediana empresa de la Región del Maule* (Marcelo Rojas, y Regner Elgueta), IIE, Universidad de Talca, 2011.
- *Sistema Web para el Proyecto Observatorio de Turistas* (Benjamin Martínez y Patricio Soto), IIE, Universidad de Talca, 2011.
- *Sistema Web de Administración y Promoción del Emprendedor y Microempresario para el Desarrollo Económico Local* (Noelia Reyes), IIE, Universidad de Talca, 2011.
- *Sincronización de Datos para Bases de Datos de las Viñas en Maule* (Wilson Espinoza, y Nicolás Bravo), IIE, Universidad de Talca, 2011.
- *Visualización de Datos con Mapa Google para Ministro de Educación* (Álvaro Cabrera y Víctor Medel), IIE, Universidad de Talca, 2011.
- *Prototipo de Sistema para Verificación de Vinos con Servicio de Base de Datos para Registro de Productos* (Constanza Alarcón), IIE, Universidad de Talca, 2010.
- *Sistema Web para Mejorar la Gestión de Información y Recursos Publicidad Tiempo Nuevo, Chile* (Diego Muñoz), IIE, Universidad de Talca, 2010.
- *Sistema Web para Difusión y Reserva de Servicios Ecoturísticos de la Ruta del Vino de Valle del Maule, Chile* (Mauricio Contreras, Solange

Palma, y Constanza Reyes), IIE, Universidad de Talca, 2009.

- *Análisis Difuso de las Imágenes Digitales a Color de las Frutas* (José Luis Troncoso), IIE, Universidad de Talca, 2009.

Papers (Artículos)

- “A Fuzzy Rule Approach with Generalized Fuzzy Membership Function to Model the Negotiation Process in Project Management.” *work in progress* (2011)
- “Prediction Scheme with Generalized Gaussian Random Process.” *work in progress* (2011)
- “Fuzzy Analysis of Color Images of Fruits,” *IEEE Proceedings on Information Science and Engineering* (2010).
- “A Prony Approach to Modeling of Time-Varying Fuzzy Systems..” *The GESTS (Global Engineering, Science, Technology Society) International Journal of Computer Science & Engineering*, Vol. 18, No. 1, November 2005.
- “Some Applications of Fuzzy Logic in Rule-Based Expert Systems.” *The International Journal of Knowledge Engineering – Expert Systems*, Vol. 19, No. 4, September 2002. (co-author: G. Chen)
- “How to Control and Manage Business Personal Computers.” *Journal of Enterprise Operations Management*, June 1999. (co-authors: H. Tran, W. Wilkerson, and J. Donner)
- “Fuzzy Modeling of Control Systems.” *IEEE Transactions on Aerospace and Electronics Systems*, Vol. 31, No. 1, January, 1995. (co-authors: G. Chen, J. Weiss)
- “Maximum Likelihood Estimation of a Class of Non-Gaussian Densities with Application to l_p Deconvolution” *IEEE Transactions in Acoustics, Spectral, and Signal Processing*, Vol. 37, No. 1, January 1989 (co-author: R. J. P. deFigueiredo)
- “Comparative Study of B2C and B2B E-Commerce Practice.” *Proceedings of the Collaborative Electronic Commerce Technology Research International Conference on E-Commerce* (Santiago, Chile) October 2004. (co-author: H. V. Tran)
- “Adaptive Fuzzy Path Planning for Navigation of Mobile Robots.” *Proceedings of the International Symposium on Measurements, Control, and Robotics* (Houston, TX) September 2004.
- “A Unified Approach to Design and Implement Robotics Standards.” *Proceedings of the International Symposium on Measurements, Control, and Robotics* (Houston, TX) September 2004. (co-author: Z. Taqvi)
- “Generalized Gaussian Densities, Multivariate Distributions and Moments for Kalman Filter Design.” *Proceedings of the International Symposium on Measurements, Control, and Robotics* (Houston, TX) September 2004. (co-authors: S. Fotedar, R. J. P. deFigueiredo, G. Chen)
- “Rapid Development Software Methodology for AI Implementation.” *Proceedings of the International Symposium on Measurements, Control, and Robotics* (Houston, TX) September 2004. (co-author: P. Amalaman, N. Luzan)

- “Adaptive Fuzzy Approach to Estimate Supplier’s Competitiveness in Open e-Bidding.” *Proceedings of the IEEE International Conference on E-Commerce* (Beijing, China) September 2004. (co-authors: S. Fuchter, G. Chen)
- “Efficient Algorithm to Use a Large Catalog for Price Enforcement in B2B E-Commerce.” *Proceedings of the IEEE International Conference on E-Commerce* (San Diego, CA) July 2004. (co-author: S. Fuchter)
- “People and Project Team Dynamics.” *Proceedings of the International MultiConference in Computer Science and Engineering* (Las Vegas, NV) June 2004. (co-authors: H. Phung)
- “Quantitative Approach to Using E-Commerce Data to Monitor and Control the Performance of a Supply Chain.” *Proceedings of the IEEE International Conference on E-Commerce, E-Technology, and E-Services* (Taipei, Taiwan) March 2004.
- “A Fuzzy Approach to Discrete and Continuous Optimizations in Path Planning.” *Proceedings of the IEEE International Symposium on Intelligent Control* (Houston, Texas) October 2003. (co-author: G. Chen)
- “Business Models for Data Translation Web Service Providers.” *Proceedings of the COLLECTeR International Conference on E-Commerce* (Santiago, Chile) September 2003.
- “Managerial Considerations to Adopting Electronic Data Interchange.” *Proceedings of the IEEE International Conference on E-Commerce* (Newport Beach, CA) June 2003.
- “A Prony Approach to Modeling of Time-Varying Fuzzy Systems.” *Proceedings of the DCDIS International Conference of Engineering Applications and Algorithms* (Guelph, Ontario) May 2003. (co-author: G. Chen)
- “A Historical Perspective of Robotics Development in the Space Station Program.” *Proceedings of the 34th Space Congress Conference in Space & Technology* (Orlando, FL) April 1997. (co-author: K. Krishen)
- “Technology Transfer in the Space Sector: Implementation and Issues.” *Proceedings of the 34th Space Congress Conference in Space & Technology* (Orlando, FL) April 1997. (co-author: V. Krishen)
- “Genetic Algorithm for Controlling Robotics Manipulator.” *Proceedings of the ACM Conference in Computing* (Philadelphia, PA) February 1996.
- “A Fuzzy Logic Approach to Object Recognition.” *Proceedings of the SPIE Conference in Applications of Fuzzy Logic Technology* (Boston, MA) September, 1993. (co-author: G. Chen)
- “Design of Adaptive Fuzzy Controllers and Its Neural Net Implementation.” *Proceedings of the IEEE International Conference on Industrial Fuzzy Control and Intelligent System*, (Houston, TX) November, 1993 (co-author: J. Weiss)
- “Active Damping in a Flexible Manipulator.” *Proceedings of the McDonnell Douglas Aerospace Workshop on Fuzzy Control Systems and Space Station Application* (Huntington Beach, CA) November,

1990.

- “Kinematics Algorithms for a Generic Chained-Configuration Manipulator”. *Proceedings of the International Symposium on Measurement and Control in Robotics* (Houston, TX) June 1990.
- “A Linear Programming Technique for Integrated Circuit Design”. *IEEE Proceedings on Circuits & System Theory* (Philadelphia, PA) 1988 (co-author: R. J. P. deFigueiredo)
- “A Constrained Frequency Domain Prony's Algorithm with Application to Time Delay Estimation”. *IEEE Proceedings on Acoustic, Spectral, Signal Processing*, (New York, NY) 1988. (co-author: R. J. P. deFigueiredo)
- “An Algorithm for Estimating the Time Varying AR Parameters of a NonStationary Process”. *Proceedings of The University of Minnesota IEEE Workshop on Spectral Estimation*, 1988. (co-author: R. J. P. deFigueiredo)
- “Maximum Likelihood Estimation of a Class of Non-Gaussian Densities with Application to l_p Deconvolution” *IEEE Proceedings on Acoustics, Spectral, and Signal Processing* (Dallas, TX) 1987. (co-author: R. J. P. deFigueiredo)
- “A Generalized Deconvolution Technique Using Linear Programming”. *IEEE Proceedings on Oceanic* (San Diego, CA) 1985. (co-author: R. J. P. deFigueiredo)

References

(Referencias)

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