

Gerardo L. Febres

Calle Guanare, Qta. Los Ruiz

Colinas de Bello Monte, Caracas, Venezuela

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Web site: www.gfebres.net, e-mail: gerardofebres@usb.ve / mail@gfebres.net

Birth : Caracas, 18 enero 1960



- **PhD Sciences** (2015): *Universidad Simon Bolívar. Venezuela.*

- **Master of Engineering**. Operations Research (1989): *Cornell University. Ithaca, NY. USA.*

- **Mechanical Engineer** (1982): *Universidad Simon Bolivar. Venezuela.*

Some relevant activities:

- I Created and developed the Autonomous Data Representation (ADR) and the platform MoNet, a system for modeling and studying complex systems. ADR works as a pseudo-language that allows the description of complex structures in a single text expression. By compacting the description of large data networks into a single expression that contains the description of the structure of its components, ADR allows the design of syntax rules that are the basis of languages that effectively treat complex systems in simulation environments. Operating versions of the ADR are implemented on the MoNet platform. Monet and ADR represent essential tools for numerous studies performed and published by Dr. Febres.
- I designed and developed the Formula 1 Game. The Formula 1 Game is a simulator of the performance of race cars participating in a multi-Grand Prix championship. The competition consists of managing in the best way the amount of money available to improve the racing car of each competing team. The return on money invested in various aspects of each racing car varies depending on the circumstances that dominate the complex scenarios of a system. The Formula 1 Game is fundamental in courses of optimization, modeling, and decision-making.
- Professor of Linear Models, Production Management, Decision Making and Systems Modeling. Department of Processes and Systems of the Simón Bolívar University. Venezuela.
- I developed logical tools to model complex systems. Specifically, I developed computer script languages and techniques to represent complex systems dynamically integrated into a business's operations in real-time. Several applications of this system have allowed Dr. Febres to work as an international consultant in operations research, industrial engineering, and the automation of legal and electronic archive processes.
- International consultant in the areas of information technology and systems. Participation in the modernization processes of property and land registration systems in Venezuela and the Dominican Republic through the Inter-American Development Bank.
- I was the director of a private company dedicated to designing and manufacturing electronic instruments for process measuring and control. He was involved in producing thermal flow switches, from the basic design to the final testing of the production.
- As an advisor on Process Optimization developed several systems and algorithms to model the behavior of steam and gas plants, pipelines, oil recovery, and other equipment used for the oil production infrastructure.
- Automation Master Plans for two major Venezuelan oil companies: Lagoven S.A. and Maraven S.A. (today PDVSA – *Petroleos de Venezuela, S.A.*). A conceptual model for oil production operations to be used in the Information System for Lagoven S.A, and the Operations Automation Master Plan for Maraven S.A.

 SPECIALTIES and INTERESTS

- System Dynamics and Modeling
- Mathematical and Computerized Optimization
- Complex systems modelling
- Statistical and Stochastic models
- Machine learning and artificial intelligence
- Optimization and process automatization
- Quantitative linguistics
- Education Technology
- Work Flow Systems

 BACKGROUND and STUDIES

- Doctor of Science.** Universidad Simón Bolívar, Venezuela 2011-2015
Thesis: Quantifying the Complexity of Languages. (Outstanding Mention)
- Master's Degree. Operations Research,** Cornell University, New York, USA. 1988-1989
- Mechanical Engineer,** Universidad Simón Bolívar, Venezuela. 1977-1982
- Thesis project: Design and Modelling of a Hovercraft. (Honor Mention).
 - Teaching Assistantship of the Dynamics Laboratory (09/1980-07/1982).
- Other Courses and Activities:**
- Origins of Life (40 hrs.). *Santa Fe Institute* (SFI), U.S.A. (Jun-Sep 2019).
 - Complex Physical, Biological, and Social Systems (40 hrs.). *New England Complex Systems Institute (NECSI)/Massachusetts Institute of Technology (MIT)*, Cambridge, Massachusetts, U.S.A. (Jun 2013).
 - Complex Systems Modeling and Networks (40 hrs.). *New England Complex Systems Institute (NECSI)/Massachusetts Institute of Technology (MIT)*, Cambridge, Massachusetts, U.S.A. (Jun 2013).
 - *Robobusiness Conference*. Organized by Robotic Trends (24 hr.). Boston, Massachusetts. (May 2007).
 - eComerce and eKey infraestructura congress Organized by WiseKey (32 hr.). Genève, Switzerland. (Nov. 2000).
 - Avenue Programming (Language for ArcInfo (*Geografical Information Systems GIS*)) (24 hrs.). Caracas, Venezuela. (1996).
 - Technology and Oil production equipment (80 hrs.). Rike Service, Ventura, CA, U.S.A. (1992).
 - Engineering Management (166 hrs.). IESA, Caracas, Venezuela (1991).
 - Multi-phase flow in pipes. (80 hrs.). Lectures by Dr. James Brill & Dr. Ovadia Shoham de *Tulsa University* at Intevp. Los Teques, Venezuela (05/1990).
 - Systems dynamics (40 hrs.). *Massachusetts Institute of Technology (MIT)*, Cambridge, Massachusetts, U.S.A. (07/1989).
 - Técnicas para el análisis de problemas (40 hrs.). Ciudad Ojeda, Venezuela (05/1987).
 - Basic Oil-Field Engineering (120 hrs.). Shell Oil Company, La Haya, Holanda (09-10/1986)
 - Heavy oil thermal recovery. (32 hrs.). Maracaibo, Venezuela (07/1983).

PUBLICATIONS AND RESEARCH

Published articles

G. Febres, C. Gershenson. *A Deterministic–Statistical Hybrid Forecast Model: The Future of the COVID-19 Contagious Process in Several Regions of Mexico*. *Systems* **2022**, 10, 138. <https://doi.org/10.3390/systems10050138>

Febres G (2022) *Complementing the Linear-Programming Learning Experience with the Design and Use of Computerized Games: The Formula 1 Championship Game*. *International Journal of Advanced Multidisciplinary Scientific Research (IJAMSR) ISSN:2581-4281*.

D. Guerrero, P. Rivera, **G. Febres**, C. Gershenson. *Towards a Measure for Characterizing the Informational Content of Audio Signals and the Relation between Complexity and Auditory Encoding*. *Entropy* **2021**, 23, 1613. <https://doi.org/10.3390/e23121613>

Febres GL (2021) *Dynamic Adjustment of SIR Model with the Social Permissiveness: An Actual Measure of the Infection Rate*. *J Bacteriol Parasitol*. S11: 003.

G. Febres. *Assessing the impact of social activity permissiveness on the COVID-19 infection curve of several countries*. arXiv:2106.04085v2 [q-bio.PE].

G. Febres, *Complementing the Linear-Programming Learning Experience with the Design and Use of Computerized Games: The Formula 1 Championship Game*.

G. Febres. *Basis to Develop a Platform for Multiple-Scale Complex Systems Modeling and Visualization: Monet*. *Multidis Res Rev* 2019. Volume 1:2(35-46). doi 10.3619/JMRR.1000117

G. Febres. *A Space Decomposition-Based Deterministic Algorithm for Solving Linear Optimization Problems*. *Axioms* 2019, 8, 92; doi: 10.3390/axioms8030092.

G, Cadenas, Luis Hernandez-Ponce and **G. Febres**. *Effects of Urban Development Praxis on Economic Inequality in Latin American Cities*. *Urban Sci*. 2019, 3, 88; doi:10.3390/urbansci3030088.

G. Febres. *A proposal about the meaning of scale, scope and resolution in the context of the interpretation process*. *Axioms* 2018, 7, 11; doi: 10.3390/axioms7010011.

G. Febres and K. Jaffe. *Structure and entropy dimensions in strings of symbols encoding literary texts and music: Separating noise from anthropogenic information*. Submitted to *Axioms*. Nov 2017.

G. Febres and K. Jaffe, *Music viewed by its Entropy content: A novel window for comparative analysis*. *PLoS ONE* 12(10): e0185757. <https://doi.org/10.1371/journal.pone.0185757>

J. Rocha, **G. Febres**. *Uso de la Cibernética en un Modelo de Gestión de Conocimiento como Partida para la Optimización de los Flujos de Conocimiento en Organizaciones*. 15th LACCEI International Multi-Conference for Engineering, Education, and Technology: "Global Partnerships for Development and Engineering Education", 19-21 July 2017, Boca Raton FL, United States.

G. Febres y K. Jaffe, *Quantifying structure differences in literature using symbolic diversity and entropy criteria*. *Quantitative Linguistics* 2017.21.1 , DOI: 10.1080/09296174.2016.1169847

J. Rocha, **G. Febres**. *Medición De Conocimiento Desde Diferentes Perspectivas Organizacionales*. 2do Congreso Doctoral en Ingeniería. Cuadernos de Ingeniería. Innovación y Tecnología de Vanguardia 2. Universidad de Carabobo. 2016. ISBN: 978-980-12-9518-1.

A. Pinzón,, **G. Febres**. *Tiempo Promedio De Los Procesos Judiciales En Colombia Usando La Ley De Little*. 2do Congreso Doctoral en Ingeniería. Cuadernos de Ingeniería. Innovación y Tecnología de Vanguardia 2. Universidad de Carabobo. 2016. ISBN: 978-980-12-9518-1.

K. Jaffe and **G. Febres**. *Defining synergy thermodynamically using quantitative measurements of entropy and free energy*. , 2016. DOI: 10.1002/cplx.21800.

G. Febres, K. Jaffe, *Calculating entropy at different scales among diverse communication systems*, Complexity. early view (2015). doi:10.1002/cplx.21746.

G. Febres and K. Jaffe. *A Fundamental Scale of Descriptions for Analyzing the Information Content in Communication Systems*. Entropy, vol. 17, no. 4, pp. 1606-1633, 25 3 2015.

G. Febres, K. Jaffe and C. Gershenson. *Complexity Measurement of Natural and Artificial Languages*. Complexity, 2014. DOI: 10.1002/cplx.21529.

Gerardo Febres y Carlos Vinante. *Bases Generales del Control Predictivo* (1994). La Universidad del Zulia, Venezuela.

G. Febres. *Control Predictivo: Efectos del bloqueo de la señal de control sobre el comportamiento del sistema* (1993). Gerardo Febres. La Universidad del Zulia.

Books

Quantifying the Complexity of Languages. A novel Scope for the Comparative Analysis of Communication Systems. **Gerardo L. Febres**. 2016. Scholars' Press. Saarbrücken, Germany. ISBN: 978-3-639-85969-0.

Referee for international scientific journals

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|-----------|---|
| 2023 | 20+ reviews. For details see https://publons.com/researcher/1388399/gerardo-l-febres/ |
| 2022 | 30+ reviews. Ranked at the 1% top percentile as a worldwide reviewer with the most reviews. For details see https://publons.com/researcher/1388399/gerardo-l-febres/ |
| 2021 | 27 reviews. Ranked at the 1% top percentile as a worldwide reviewer with the most reviews. For details see https://publons.com/researcher/1388399/gerardo-l-febres/ |
| 2020 | 25 reviews. Ranked at the 2% Top percentile as a worldwide reviewer with the most reviews. |
| 2019 | 14 reviews. Ranked at the 5% Top percentile as a worldwide reviewer with the most reviews. |
| 2015-2018 | 11 reviews |

ACM Transactions-on-Asian-and-Low-Resource Language Information Processing; Asian-journal of Probability and Statistics; Complexity; International-journal of Statistics and Probability, International-journal of environmental research-and public health; MDPI: Applied Sciences, Computers, Electronics, Entropy, Fluids, Games, Information, IJERPH , Fluids, Journal of Personalized Medicine, Mathematics, Processes, Sustainability, Symmetry, Systems; Peer Journal of Computer Science; Physica A; Statistical Mechanics and its Applications; PLoS One

Congresses and seminars

G. Febres. *Primeras Jornadas de Investigación y Desarrollo USB*. REPRESENTACIÓN DE SERIES CON PATRONES ANIDADOS. Universidad Simón Bolívar. 2024.07.02.

G. Febres. *XXXIII Jornadas Venezolanas de Matemáticas*. CARACTERIZACIÓN DE PROCESOS MEDIANTE LA REPRESENTACIÓN DE PATRONES ANIDADOS. Universidad Central de Venezuela. 2024.05.23.

G. Febres. *Complejidad e Ingeniería*. El rol de los lenguajes en nuestro desempeño. Segundo Congreso de Ingeniería y Ciencias de la Corporación Universidades del Caribe CECAR. 2017.04.05.

K. Jaffe and **G. Febres**. *Measuring synergy using entropy*. 2nd International Electronic Conference on Entropy and its Applications. 11.2015.

G. Febres, C. Vinante. *Estudio comparativo de los parámetros de supresión y bloqueo de la acción de control en controladores predictivos.* 8va Jornadas científico/técnicas de ingeniería. Maracaibo. 1992.

G. Febres, N Lomelli, A Azocar. *Filosofía de control de la distribución óptima de gas en un sistema de gas-lift.* 8va Jornadas científico/técnicas de ingeniería. Maracaibo. 1992.

M. Paz, **G. Febres.** *Simulación discreta de las operaciones del sistema de oleoductos de Maraven en la Costa Oriental del Lago.* 8va Jornadas científico/técnicas de ingeniería. Maracaibo. 1992.

G. Febres. *Distribución óptima de gas para levantamiento artificial.* Segundo Congreso del uso eficiente de la Energía y conservación en La Università di La Sapienza. Roma, Italia. 1992.

J. Caldera, **G. Febres.** *Criterios de Selección para Inyección de Vapor a través del Espacio Anular.* Congreso Venezolano de Ingeniería Mecánica. Maracaibo. 1991.

Tutor of projects for the Master's Degree in Biomedical Engineering, Urban Sciences and Production Engineering Degrees.

Victor Sanchez. 2024.07. Modelo del efecto de la Ley de Pareto en el crecimiento de Empresas. Universidad Simón Bolívar.

Yahir Yarazeth Calderón Silva. 2021.09. Modelo determinístico para el estudio del sistema de conducción cardíaca en función de los canales voltaje-dependientes Final Project to qualify for the degree of Master of Biomédical Engineering. Universidad Simón Bolívar.

Rogelio José China Belisario. 2021.04. Modelos para la toma de decisiones en organizaciones en crecimiento. Final Project to qualify for the degree of Production Engineer.

Gustavo Cadenas Delascio. 2018.04. Desarrollo urbano y desigualdad económica en Latinoamérica: aproximación desde el multiplismo crítico. Final Project to qualify for the degree of Urban sciences. Universidad Simón Bolívar.

Stefhani Michell Pizzo Useche. 2018.11. Método descriptivo de estructuras organizacionales basado en representaciones simbólicas de sistemas complejos. Final Project to qualify for the degree of Production Engineer. Universidad Simón Bolívar.

Academic Advisor of Internships and projects for an engineering degree.

Academic adviser of more than 30 students of Production Engineering, Mechanical Engineering performing 20-week internships in companies located in Venezuelan and European as Procter and Gamble, Coca-Cola, Biggott, Pernod Ricard, Chevron, Nestle, and others.

Horelyz Joseyn Vásquez Vera. 2022.04. Diseño de un modelo de implementación y asignación de recursos para monitoreo de transporte público. Universidad Simón Bolívar.

Karen Marie Martínez Hernández. 2021.11. Optimización de fórmulas usadas en la elaboración de pinturas para diferentes lotes de producción. Universidad Simón Bolívar.

Sara Carolina Teppa Varela. 2021.09. Desarrollo de procesos de comercialización como estrategia de crecimiento vertical aguas abajo. Universidad Simón Bolívar.

Guillermo Alejandro Lapelosa Rinaldi. 2021.09. Diseño de modelo de distribución para clientes de centro y oriente atendidos por la planta de Guatire, tomando en cuenta la implementación de operadores logísticos. Universidad Simón Bolívar.

Luis Manuel Pocaterra Sosa. 2021.07. Rediseño del sistema de gestión de control de procesos en la gestión de la flota vehicular de Nestlé. Universidad Simón Bolívar.

Andrés Alejandro Rivas Ortega. 2021.07. Diseño de un modelo de asignación de recursos para supermercados y licorerías en el departamento de ventas del área capital. Universidad Simón Bolívar.

- Oscar Enrique Regalado Blanco.** 2019.01. Gestión de procesos y procedimientos medulares del departamento de cobranzas de Procter and Gamble Venezuela . Universidad Simón Bolívar.
- Ramón Alejandro Márquez Hernández.** 2018.09. Plan de mejora continua para procesos de gestión y control de operaciones. Universidad Simón Bolívar.
- Kevin Danglau Mejía Maldonado.** 2018.08. Modelo genérico probabilístico para la estimación de tiempos de servicio en una ruta de reparto. Universidad Simón Bolívar.
- Leonella Pilar Ritter Lista.** 2018.06. Diseño de un modelo de optimización de transporte y consolidación de mercancía. Universidad Simón Bolívar.
- Diego Rodríguez.** 2018.02. Diseño de un nuevo modelo de gestión de inventario para una empresa comercializadora. Universidad Simón Bolívar.
- Diana Alejandra Fumero Maduro.** 2018.01. Implementación del sistema de gestión de la calidad y control de la documentación en la empresa chocolates Krön C.A. Universidad Simón Bolívar.
- Viviana Milagros Fajardo Altuve.** 2018.01. Diseño de un sistema para el control de inventarios de producto terminado en Coca Cola-Femsa. Universidad Simón Bolívar.
- Jennifer Alejandra Nobrega Cardenas.** 2017.12. Desarrollo de plan de producción operativo para el departamento de charcutería de Central Madeirense. Universidad Simón Bolívar.
- Verónica Zanolli Baseotto.** 2017.11. Estandarización del proceso de producción de sellos críticos seleccionados. Universidad Simón Bolívar.
- Helen Johanna Herrera Castang.** 2017.09. Desarrollo de un plan de seguimiento y mejora de la previsión de aprovisionamiento de materia prima. Universidad Simón Bolívar.
- Alessandro Fornino Di Bella.** 2017.09. Estudio de factibilidad de uso de polipropileno de producción nacional para el sellado de cajetillas en Bigott. Universidad Simón Bolívar.
- María Virginia Pérez.** 2017.07. Estudio para la localización de un nuevo centro de distribución. Universidad Simón Bolívar.
- María Placeres.** 2017.05. Desarrollo de propuesta para mejorar la distribución y disponibilidad en tiendas de Ariel líquido. Universidad Simón Bolívar.
- Andrea Mekel Nakhal.** 2017.01. Diseño de un portafolio de nuevos productos de innovación, selección y planificación de la introducción del producto. Universidad Simón Bolívar.
- Constantino Ruiz.** 2017.01. Propuesta de optimización, mejora de materiales y diseño de empaque primario de pañales para Latinoamérica. Universidad Simón Bolívar.
- Edwin Egas Guerrero.** 2016.12. Plan de continuidad operativa para una empresa del sector avícola. Universidad Simón Bolívar.
- David Rodríguez Rojas.** 2016.12. Desarrollo, planificación y despliegue de plan de mantenimiento para planta envasadora enfocado en mejora de rendimiento. Universidad Simón Bolívar.
- Rosmary Virginia De Abreu Acevedo.** 2016.09. Registro de datos en el sistema de administración de flotillas Soffflot. Universidad Simón Bolívar.
- María Carolina Pacheco.** 2016.10. Mejora del portafolio de productos en cuatro mercados de la regional Pernod Ricard Emea: Grecia, Polonia, Suecia y España. Universidad Simón Bolívar.
- Paula González Gago.** 2016.11. Rediseño e implementación de los procesos de e-Procurement en Chevron descentralizando el sistema actual. Universidad Simón Bolívar.
- Diana Bracho.** 1992.09. Influencia de la riqueza del gas de levantamiento artificial sobre el proceso de recuperación de líquidos. La Universidad Del Zulia.
- William Hernández Chávez.** 1992.01. Informe de Pasantía Industrial Universidad Nacional Experimental del Táchira.

Gerardo Gamboa.1992.01. Informe de Pasantía Industrial. Universidad Nacional Experimental del Táchira.

Marisabel Paz. 1992.02. Simulación discreta de las operaciones del sistema de oleoductos de la empresa Maraven en la costa oriental del lago. La Universidad Del Zulia.

Maria Elena Albornoz.1990.06. Simulación de los sistemas de manejo de crudo Lagomar y Lagomedio. Universidad Simón Bolívar.

José Caldera. 1991.04. Criterios de selección para Inyección de vapor a través del anular. La Universidad del Zulia.

ACADEMIC EXPERIENCE

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|---|-----------------------|
| <p>UNIVERSIDAD SIMÓN BOLÍVAR, Caracas, Venezuela Departamento de Procesos y Sistemas. Dr. Febres teaches undergraduate and postgraduate students subjects related to operations research. Specifically, linear optimization and operations management are included. Dr. Febres also teaches the Decision-Making subject that contains tools for time series forecasting, game theory, and the Analytical Hierarchy Process.</p> | 2015/09 a la fecha |
| <p>UNIVERSIDAD DE CARABOBO. Valencia, Venezuela. Bogotá, Colombia Facultad de Ingeniería. Dr. Febres dictated the subject Operations Research Models for students of the Doctorate in Industrial Engineering that is offered at an international level.</p> | 2016/04 |
| <p>LA UNIVERSIDAD DEL ZULIA, MARACAIBO, VENEZUELA Profesor de instrumentación y control industrial. Subject included in the "Maintenance Management" program given to graduate students of mechanical, industrial, petroleum and civil engineering.</p> | 1992-1993 |

LANGUAGES

Reads writes and speaks Spanish and English.

AWARDS AND RECOGNITIONS

- Enrique Panchar Award. Recognition to the Teaching Work. Universidad Simon Bolivar, 2023.
- Doctoral Thesis "Quantifying the Complexity of Languages". Mention to Outstanding Thesis. Universidad Simon Bolivar, 2015.
- Silent Hoist and Crane Company. Material Handling Prize. Second place. 1989. Given in recognition of the Master thesis: "Redesign of the steering linkage assembly process for Saginaw Division. General Motors Corporation".
- Sponsorship for graduate studies at Cornell University. Granted by Maraven as a recognition of quality and research-oriented work.
- Number One of Quality-Star. 1986. Prize given by Maraven –a Petróleos de Venezuela PDVSA's formerly operator company– in recognition of quality work.
- Number One of Quality. 1985. Prize given by Maraven –a Petróleos de Venezuela PDVSA's formerly operator company– in recognition of quality work.
- Mention of Honor for the Mechanical Engineering Thesis: "Design and Modelling of a Hovercraft". Universidad Simón Bolívar, 1982.

 ASOCIATIONS

- Laboratory of Evolution at Universidad Simon Bolivar
- Cavedatos. Informatics and Venezuelan Chamber.
- Asociación de Registradores Mercantiles de Venezuela (Venezuela Commerce Registry Association).
- Colegio de Ingenieros de Venezuela (Venezuela College of Engineers). Inscripción Nro. 34550 Libro 153.

 EXPERIENCE

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|---|------------------------------|
| <p>Universidad Simón Bolívar. Caracas, Venezuela</p> <p>Profesor/Investigador del Departamento de Procesos y Sistemas.</p> <p>Professor and researcher in the fields of complex systems modelling, optimization and management</p> | <p>2015/09 To date</p> |
| <p>Universidad de Carabobo. Valencia, Venezuela</p> <p>Profesor de la Facultad de Ingeniería.</p> <p>He teaches the subject Operations Research Models to Industrial Engineering Doctorate students offered at the Military University of Nueva Granada and the La Salle University at their headquarters in Bogotá, Colombia. He serves as tutor for several doctoral theses.</p> | <p>2016/03</p> |
| <p>Universidad Simón Bolívar. Caracas, Venezuela</p> <p>Doctorado Interdisciplinario en Ciencias.</p> <p>This doctoral work consists of the evaluation of the complexity of systems. The activities include the development of methods for the evaluation of descriptions made through various types of language such as natural languages, programming languages, music, and genetic codes. Experiments are designed to compare languages of different types by evaluating their entropy, diversity, and complexity, and regions of the entropy-diversity space corresponding to each type of language studied are specified. Experimentally it is shown that the diversity of symbols and the entropy measured on descriptions, allow the construction of models capable of detecting and quantifying differences between descriptions of systems as subtle as those that are considered part of the form and style.</p> | <p>2011/01 – 2015/04</p> |
| <p>Secretaría de la Universidad Central de Venezuela. Caracas, Venezuela</p> <p>Consultant for the Installation of an Automated Electronic File.</p> <p>Mr. Febres implemented a Workflow system to control the discussion points of the weekly meetings of the University Council. The system establishes a structure in which the collaborative work of the members of the Secretariat is harmonized and allows the detailed classification of each matter to be discussed. Various parameters of each digital document are automatically added by the system, such as keywords, sender and recipient, and dates. All information and electronic documents feed into an electronic file.</p> | <p>2008/09 – 2010/05</p> |
| <p>Global Recovery Group, INC. Washington D.C., USA.</p> <p>Process and Information Technology Consultant.</p> | <p>2008- 2010</p> |

System for document classification and automatic archiving at Global Recovery Group, a company that handles cases with pending economic matters around the world. The main offices are located in Washington DC but its main activities are carried out in countries of Latin America, Africa and Europe. These activities generate a significant volume of documents that must be controlled through a digitization and archiving process. The improvement and extension of automated activities are the main purpose of this consultancy.

SUPREMA CORTE DE JUSTICIA.

2004-2005

PROGRAMA DE MODERNIZACIÓN DE LA JURISDICCIÓN DE TIERRAS.

Santo Domingo. República Dominicana.

Registry Management and Automation System – SIGAR.

Consultant for the supervision of the development and startup of the *Land Registry Automation and Management System*. The project SIGAR system consists of two major aspects: building up a data base with the information associated to eight most important Land Registry Offices of the country and developing a computerized system to monitor and control the registry acts and operations. The system is expected to represent the historical evolution and relationship among plots, covering a time span starting from 1920, when the Torrens Land Registry System was implemented.

In order to represent this historical land distribution process in a logical fashion, Mr. Febres has developed several methods and systems tools which have been successful as an approach to tackle such a difficult technical problem.

TIEMPO REAL, Ingeniería y Software, S.A.

Caracas, Venezuela.

1997-2010

Development manager. Reform and Modernization of the State.

Since 1995, several development needs and opportunities were detected in the Venezuelan registry and notary sector. In 1997 Mr. Febres founded Tiempo Real, S.A., a Venezuelan company dedicated to design and develop computerized engineering systems, initially aimed to provide Work-Flow control to registry and notary offices. Mr. Febres achieved the design of a systems structure capable of linking the work among offices of a diverse nature. His work showed that the Logical Assembly Line concept, integrates the flow of information between dispersed offices without incurrence of enormous expenses or technologies outside the national reach.

Being advisor for the Vice Ministry of Citizen Security, developed plans and started the automation and interconnection of Notary and Registry offices in Venezuela. Mr. Febres established the automated operation of more than 40 registry offices, notaries and courts. The implemented system is characterized by the diversity of the levels of automation and functionalities achieved in each office. In general, these functionalities include the management control of the offices through a computerized workflow, the interconnection of offices to share Prohibition Measures at a national level, as well as the Commercial Names for the purposes of commercial registries. In total, these systems impacted the daily management of some 6,000 public employees distributed in cities and towns throughout the national territory.

PROEGEO S.A

Caracas, Venezuela.

1997-1998

Adviser. Environmental Sensitivity Project for Zone IV of the National Contingency Plan

I proposed improvements to the structure of the database used to serve the geographic information system of this area of the National Contingency Plan.

REGISTRO MERCANTIL V DEL DTTO. FEDERAL. Y EDO. MIRANDA.

1995-1999

Caracas, Venezuela

Processes Automation Advisor

I established the operating guidelines of the Registry to enable the efficient operation of a public office of this type. I designed and structured a computerized system for the automation of operations as well as the supervision of the Mercantile Registry process, incorporating real-time monitoring elements in order to achieve strict control of operations. The developed system incorporates real-time monitoring concepts and treats the registry office as a set of 'assembly lines', in which the products are the different types of documents processed and registered and where the objective is their processing with maximum punctuality and maintaining a high level of security. As outstanding aspects of this development, the conception of mathematical expressions and data structures capable of modeling in terms of parameters and the meaning of several current Laws in the field of the Venezuelan registry system should be mentioned.

PROEGEO S.A.

Caracas, Venezuela.

Adviser. Fifth and sixth Zone of the Sensibility Environment National Contingency Plan

Proposed and designed the Data Base structure for the Graphical Information Systems associated with the Fifth and Sixth Zone of the Sensibility Environment National Contingency Plan.

CADMATIC S.A./ MARAVEN S.A

1995

Caracas, Venezuela.

Adviser.

Collaborated with the development and programming of algorithms for the analysis of behavior of complex piping and equipment networks. The resulting program "*Sistema de Planificación de Infraestructuras y Proyectos-SPIP*", is useful for the estimation of performance of the Maraven oil production infrastructure at long term.

CONSORCIO PROYECTA-PARSONS., PLAN MAESTRO DE AUTOMATIZACION DE LAGOVEN, S.A.

2/1993 -
9/1994

Caracas, Venezuela.

Process Optimization Advisor.

Generated and developed several ideas for the optimization of gas treatment plants (ACOGAS and GLP-ULE plants), and participated in the definition of the optimal gas-lift distribution philosophy. Integrated the team for the development of the automation of the Jusepin oil production, gas processing, and water injection complex, Edo. Monagas, Venezuela

Information Systems Advisor.

Participated in the oil production operations conceptual modeling, looking for computerized systems for the supervision and control of transactions at *Lagoven*. Most of the work in systems design was based on James Martin's methodology.

CONTROLES INTELIGENTES DIGITALES, C.A.

9 / 1992 -
8 / 1994

Maracaibo, Venezuela.

Engineer-Director.

Modelling and Development of new instruments for *Controles Inteligentes Digitales, C.A. (CID)*, a Venezuelan company dedicated to the design and manufacturing of the FLOTEC thermal flow switches. FLOTEC sensors base their operation on thermal transfer principles and have numerous applications on optimization projects, oil wells, flow stations, tank yards, and other facilities typical of the petroleum industry.

MARAVEN, S.A., SUPERINTENDENCIA DE TECNOLOGIA DE OPERACIONES
Lagunillas, Venezuela.

1 / 1990 -
11/ 1992

Chief of Technology of Production Facilities.

In charge of applying new technologies and the search for operational methods in order to increase the efficiency of the production, gas lift, thermal heavy oil recovery, dehydration, and pipeline use processes.

Diagnosis of operational problems related to production facilities, pipeline nets, and terminals; suggestion of short-term solutions. Investigated accidents that affected the production facilities.

Among the most representative results from this period are the use of thermal sensors to detect oil spills of mechanical pumping wells and the optimization of gas lift distribution, which incorporates mathematical models for each individual well as the transition of control signal by means of SCADA systems.

MARAVEN, S.A., DEPARTAMENTO DE ESTUDIOS ESPECIALES.
Lagunillas, Venezuela.

11/1985 -
12/1987

Member of the Study Group for Plan of Automation of Operations.

I was actively involved in the initial study for automating the Company's operations. I conducted feasibility and profitability analyses of potential areas for automation in the oil production, treatment, and transport systems and participated in the initial implementation of the automation plan.

MARAVEN, S.A., DEPARTAMENTO DE OPERACIONES DE PLANTAS.
Lagunillas, Venezuela.

12/1982 -
11/1985

Supervisor of Operations of Steam Plants.

I managed the Operations Budget of the Steam Generation Plants used for Heavy Oil Thermal Recovery. I studied and implemented several modifications to the process control, increasing the plants' overall efficiency. I also supervised operations activity personnel.

DIQUES Y ASTILLEROS NACIONALES, C.A.
Puerto Cabello, Venezuela.

1980

Intern

As a student, Mr. Febres worked in the Hull and Structures Department. I learned about quality control of welds and the replacement of anti-friction metals in bearings used in the Naval industry.