Currículum Vítae

Francisco Oviedo Tolentino

General Dates

CVU Conacyt Number: 46155
Date of Birth: November 5^{th}, 1976
Place: Salamanca, Gto.
Civil Status: Married
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Education

• Ph.D. in Mechanical Engineering, University of Guanajuato, México, 2007 – 2010. Thesis: Analysis of a Flexible Circular Cylinder Mounted on a Flat Plate Partially Immersed in a Laminar Boundary Layer". December 17, 2010. **Graduated with honours, "Laureate"**.

• M.S. in Mechanical Engineering, University of Guanajuato, México, 2002 – 2004. Thesis: Experimental Analysis of the Shift Angle Between Sinusoidal Plates in Compact Heat Exchangers. December 16, 2004. **Graduated with honours, "Laureate"**.

• B.S. in Mechanical Engineering, University of Guanajuato, México, 1996 - 2002. Thesis: Analysis of the Comfort in the Low-Income Housing Projects at Salamanca, Guanajuato. September 10, 2002.

Educational Experience

• Assistant Professor, Heat Transfer, Fluid Mechanics and Power Plants, School of Engineering, Autonomous University of San Luis Potosí. January 2005- January 2006.

• Lecturer, Algebra, High School "CECITEG", at Salamanca, Summer, 1998.

• Lecturer, Analytic Geometric, High School "CET.is No 62", at Salamanca, Summer, 1996.

Publications

• F. Oviedo-Tolentino, R. Romero-Mendez, A. Hernandez-Guerrero, J.M. Luna, "Flow Induced Oscillation of a Set-In Circular Cylinder", 2009 ASME International Mechanical Engineering Congress & Exposition (IMECE09), November 13-19, 2009 Lake Buena Vista Florida, ISBN 978-0-7918-3863-1.

• F. Oviedo-Tolentino, R. Romero-Méndez, A. Hernández-Guerrero, B. Girón-Palomares, "Use of Diverging or Converging Arrangement of Plates for the Control of Chaotic Mixing in Symmetric Sinusoidal Plate Channels", Experimental Thermal and Fluid Science 33 (2009) 208–214.

• B. Girón-Palomares, A. Hernández-Guerrero, R. Romero-Méndez, F. Oviedo-Tolentino, "An Experimental Analysis of the Flow Pattern in Heat Exchangers with an Egg Carton Configuration (Parallel, Convergent and Divergent Cases), International Journal of Heat and Fluid Flow 30 (2009) 158–171.

• Francisco Oviedo-Tolentino, Ricardo Romero-Méndez, Abel Hernández- Guerrero, Benjamín Girón-Palomares, "Experimental Study of Fluid Flow in the Entrance of a Sinusoidal Channel", International Journal of Heat and Fluid Flow, Vol. 29 (2008) 1233–1239.

• Girón-Palomares, B., Romero-Méndez, R., Hernández-Guerrero, A., Oviedo-Tolentino, "An Experimental Study of The Flow Pattern between Corrugated Plates with The Egg-Carton Configuration", Proceedings of the XII National Conference of the Mexican Society of Mechanical Engineers, Acapulco, Mexico, September 2006.

• Oviedo-Tolentino F., Romero-Méndez R., Hernández-Guerrero A. and Girón-Palomares B., "Experimental Study of Flow in a Compact Heat Exchanger with Sinusoidal Plates," Annals of Mechanical Engineering, Magazine of the Spanish Association of Mechanical Engineering, Year 15, Vol. 3, Pags. 2163-2171, ISSN: 0212-5072, December, 2004.

• Girón-Palomares B., Romero-Méndez R., Hernández-Guerrero A. and Oviedo-Tolentino F., 2004, "Visualization of the Pattern Flow in a Heat Exchanger with Egg-Carton Configuration," Annals of Mechanical Engineering, Magazine of the Spanish Association of Mechanical Engineering, Year 15, Vol. 3, Pags. 2115-2123, ISSN: 0212-5072, December, 2004.

• Oviedo-Tolentino F., Rubio-Arana C., 2003 "Analysis of the Comfort in Low- Income Housing Projects at Salamanca". IX Annual Congress of the Mexican Society of Mechanical Engineering, Veracruz, Veracruz, September 3-5, 2003.

Publications in Progress

• F. Oviedo-Tolentino, R. Romero-Mendez, A. Hernandez-Guerrero, R. A. Avalos-Zuñiga, "Vortex-induced vibration in a circular cantilever beam", sent for evaluation, Journal of Fluids and Structures, March, 2011.

• F. Oviedo-Tolentino, R. Romero-Mendez, A. Hernandez-Guerrero, F. G. Pérez- Gutiérrez, "Vortex-induced vibrations in a colinear array of bottom fixed flexible cylinders", sent for evaluation, Journal of Fluids and Structures, September, 2010.

Presentations (Academic Events)

• Experimental Analysis of the Shift Angle Between Sinusoidal Plates. Summer School: Modern Tendencies of Heat Transfer, San Luis Potosí, México, July 4, 2004.

• Analysis of the Comfort in the Projects at Salamanca Guanajuato., IX Annual Congress of the Mexican Society of Mechanical Engineers, Veracruz, Veracruz, September 3-5, 2003.

• Analysis of the Comfort in Low-Income Housing Projects at Salamanca, Guanajuato, Summer School: Modern Tendencies of Heat Transfer, San Luis Potosí, México, July 7, 2003.

Professional Experience

• Supervising task of the mechanical installation of a new pipe line from Poza Rica, in the State of Veracruz, to the Cadereyta Refinery in the State of Nuevo Leon, Summer, 2000.

• Professional Social Service in the Maintenance Area, Oil Separator (Area 6B) Refinery at Salamanca of the Mexican Oil Company (PEMEX).

Academic Recognitions

• Member of the National System of Invetigators (SNI), Candidate for the period 01/01/2012-31/12/2014.

• Awarded a Scholarship by CONACYT (National Council in Science and Technology) to study the PhD Degree, October 2006-December 2009.

• Attendance to the Summer School Titled: "Modern Tendencies in Heat Transfer", Engineering School, Autonomous University of San Luis Potosí, July 5-9, 2004.

• Awarded a Scholarship by CONACYT (National Council in Science and Technology) to study the Masters Degree, October 2002-September 2004.

• Attendance to the Summer School Titled: "Modern Tendencies of Heat Transfer", Engineering School, Autonomous University of San Luis Potosí, July 5-9, 2003.

• Attendance to the Course Titled: "Subsonic Wind Tunnel", given by the company EDIC, University of Guanajuato, May 20, 2003.

• Internship, Autonomous University of San Luis Potosí, August 11-September 19, 2003. Under the Supervision of Dr. Ricardo Romero Méndez. Experiments in Flow Visualizations were made using a Tracking Particles Technique.

• Attendance to the Course Titled: "Tutorial Course of Mechanical Desktop", given by the ASME Student Branch of the University of Guanajuato, July- August, 1999.

Academic References

• Marković Jelena Đ., Lukić Nataša Lj., Jovičević Dragica Z. "Application of Lattice-Boltzmann method and analysis of fluid flow between two sinusoidal plates" Acta periodica technologica 2010 Issue 41, Pages: 121-129, DOI: 10.2298/APT1041121M.

• Hewitt, G.F., Marshall, J.S. "Particle focusing in a suspension flow through a corrugated tube" 2010 Journal of Fluid Mechanics 660, pp. 258-281.

• Luna, J.M., Hernandez-Guerrero, A., Romero-Mendez, R., Luviano-Ortiz, J.L. "Analysis and experimental visualization of the flow behavior between parallel separated cross-corrugated plates" 2010 ASME International Mechanical Engineering Congress and Exposition, Proceedings 9 (PART A), pp. 185-193.

• Krishnamurthy Nagendra, Danesh K. Tafti, Aroon K. Viswanathan. "Modeling of soot deposition in wavy-fin exhaust gas recirculator coolers" 2011, International Journal of Heat and Mass Transfer, Vol. 54, Issues 7-8, Pages 1671-1681.

Languages

• Spanish: Native language.

• English: TOEFL Score 517, February 22, 2008.

Skills

• Computational Programs: Microsoft Office (Word, Excel y Access), Auto Cad, Fortran, Python, Mechanical Desktop, Master Cam, Matlab, Comsol, Fluent and Elmer.

• Modeling Physical Phenomenal in Fluent: Problems with Conjugate Heat Transfer, Flow Behavior between Wavy Channels, and Hydrodynamics in Externals Flows.

• Handling of Subsonic Wind Tunnel Model EDIC.

• Handling of Water Tunnel Model 1520-K of Rolling Hills Research Corporation.

• Techniques of Flow Visualization: Reflecting Particles, Dye, Hydrogen Bubble, Particle Tracking Velocimetry and Particle Image Velocimetry (PIV).

• Photography and Developing Techniques of Images Taken with Long-time Exposure.

• Development of Experimental Models with Complex Geometries.

Areas of Interes

• Flow Visualization, Numerical Methods in Termofluids, Experimental Methods in Termofluids, Thermodynamics, Cryogenics, Compact Heat Exchangers and Fluid-Structure Interactions Problems.

References

• Abel Hernández-Guerrero, Ph.D., Professor, School of Engineering, University of Guanajuato, MEXICO, abelh@.ugto.mx.

• Francisco Javier Solorio Ordaz, Ph.D., Professor, Division of Mechanical and Industrial Engineering, National Autonomous University of México, MEXICO, fjso@servidor.unam.mx.

• Eduardo Ramos Mora, Ph.D., Professor, Investigation Center in Energy, National Autonomous University of Mexico, MEXICO, erm@cie.unam.mx.