

Jose Martinez-Escanaverino, Ph.D. B.Sc. (Engineering)

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Mr. Martinez-Escanaverino is a scholar with experience in engineering education and research at universities of Cuba, Venezuela, Brazil, Germany, and Mexico. He is also an engineering consultant with international practice in complex industrial problem solving. He was a Member of the Cuban Academy of Sciences from 1996 to 2011, and the Coordinator of its Engineering Sciences Section during 2003-2008. Currently, he is a Canadian permanent resident.

Professional Activities

Engineering University Lecturer

Undergraduate Level		Graduate Level	
Engineering Physics	Machine Elements	Software Engineering	Computer Graphics
Theoretical Mechanics	Conveyors & Cranes	Engineering Design	Mechanism Synthesis
Theory of Mechanisms	Industrial Drives	Actuator Systems	Rolling Bearings
Dynamics of Machinery	Tribology	Problem Solving	Parallel-Shaft Gearing

Engineering Consultant

- **Actuator systems for industrial machines**
Covers theory and practice of electro-mechanical, -hydraulic and -pneumatic actuators. Examples of internationally relevant results: 1) Paper at 1999 AGMA Fall Technical Meeting, Denver, USA; 2) Design and development of pioneering AC electromechanical drive for heavy 28 t/h continuous kneader in 1999 at CVG CARBONORCA, Venezuela, with ABB as main vendor; 3) Design and development of a trend-setting actuator system for an electrode paste gate valve in 2002 at CVG CARBONORCA, Venezuela, with Parker-Hannifin as main vendor.
- **Numerical engineering problem solving**
A rational and visual method for model-based problem posing and solving—covering simulation and optimization—has been devised. Applied in real life engineering education and practice, the method is to be fully published in a forthcoming monograph. Examples of internationally relevant results: 1) Paper at 2002 ASME Design Engineering Technical Conferences, Montreal, Canada; 2) Optimum drive design for a new 132 kW heavy log washer in 1996 for the Moa Nickel ore processing plant in Moa, Cuba, with Pancorbo-Voltor as main vendor. 3) Optimum design of new 100 kW hoist drive for anode-stacking crane in 1999 at CVG CARBONORCA, Venezuela, with Siemens and Schneider as main vendors.

Employment

- *J.A. Echeverria* Higher Polytechnic Institute (CUJAE). Havana, Cuba
Full Professor 1985-2008
- Havana University, Faculty of Technology (CUJAE). Havana, Cuba
Auxiliary Professor 1981-1985
Assistant (Professor) 1977-1981
Graduated Instructor 1974-1977
Non-Graduated Instructor 1969-1974
- *Casa Pato* Electromechanical Workshop. Havana, Cuba
Apprentice 1961-1962

Publications

- Over 25 key papers presented in prestigious engineering symposia, held in Cuba, Germany, USA, Canada, Venezuela, Brazil, the Netherlands, Mexico, and Chile.
- Since 1966, has been publishing in Cuban journals, specially the *Juventud Tecnica* popular science journal, and the *Ingenieria Mecanica* professional journal, being a founder of the latter.
- Author of a textbook on Mechanism Theory and other on Tribology, which have been published and applied by Cuban universities in mechanical engineering education.
- Second author of a book on Wind Power published in 2007. ISBN 978-959-7113-34-8.

Higher Education

- *J.A. Echeverria* Higher Polytechnic Institute (CUJAE). Havana, Cuba
Ph.D. in Engineering Sciences, 1980-1983.
- Havana University, Faculty of Technology (CUJAE). Havana, Cuba
B.Sc. in Mechanical Engineering, 1968-1973.

Professional Memberships

- Cuban Academy of Sciences (ACC)
 - Coordinator, Engineering Sciences Section, 2003-2008.
 - Full Member 1998-2011.
 - Provisional Member, 1996-1998.
 - Member, Higher Scientific Council, 1993-1996.
- American Gear Manufacturers Association (AGMA). Academic Member from 1993 to 2008.
- American Society of Mechanical Engineers (ASME). Member from 1998 to 2009.
- Institute of Electrical and Electronics Engineers (IEEE). Member since 2005.
- IEEE Computer Society (IEEE CS). Member since 2002.

Information Technology Proficiency

- Operating Systems: Microsoft MS-DOS & Windows.
- Office Automation: Microsoft Word & Power Point, Adobe Illustrator, LaTeX.
- Engineering Drawing: Autodesk AutoCAD & Inventor, Dassault SolidWorks.
- Model-based Problem Solving: UTS TK Solver, MathWorks MATLAB, Maplesoft Maple.
- Finite Elements Modeling & Simulation: Autodesk Algor, ANSYS Inc. ANSYS.
- Programming: FORTRAN, BASIC, Pascal, C, C++, Java, C#.
- Design and development of state-of-the-art MCAD Center in 1993 for UNEXPO Technical University in Puerto Ordaz, Venezuela, with Hewlett-Packard as main vendor.

Working Languages

Language	Read	Write	Speak	Special Bonus
Spanish	•	•	•	Native with <i>summa cum laude</i> Higher Education Scientific papers & reports writing and presentation
English	•	•	•	
Russian	•	•	•	
Portuguese	•	•	•	University Lecturer

