

## **José Manuel Albornoz**

---

Departamento de Electrónica y Comunicaciones Phone: +58 274 2402907  
Facultad de Ingeniería. Fax: +58 274 24029007  
Universidad de Los Andes albornoz@ula.ve  
Núcleo La Hechicera  
Mérida, Venezuela

### **Education**

Doctor of Science in Physics, Universidad de Los Andes, 2007 (Expected)

Master of Science in Electrical Engineering, Ohio State University, 2001

Electronic Engineer, Universidad Simón Bolívar, Caracas, Venezuela, 1990

### **Research Experience**

Junior Researcher 1991–1995  
José Luis Bendito Universidad de Los Andes  
Development of models of the equatorial F2 layer.

Junior Researcher 1995–1999  
Zulima Barboza Universidad de Los Andes  
Development of low-cost antenna measurement techniques.

Master's Student 1999–2001  
Michael Fitz Ohio State University  
Design and development of a wideband channel sounder.

Doctoral Student 2003–Present  
Antonio Parravano Universidad de Los Andes  
Development of chaotic cryptography schemes. Modeling, simulation and characterization of complex networks

### **Teaching Experience**

Teaching Assistant, Control Theory, Universidad Simón Bolívar, 1988–1989

Lecturer, Universidad de Los Andes, 1991–Present

### **Employment**

Universidad de Los Andes Mérida, Venezuela  
Lecturer November 1991–present  
As a lecturer I am in charge of teaching undergraduate courses related to telecommunications such as Electricity & Magnetism, Electromagnetic Theory, Communication Theory, Microwaves, Antennas & Propagation and Design of Microwave Links.

Consejo Venezolano del Transporte Caracas, Venezuela  
Programmer January 1991–November 1991  
Programming and documentation of database systems

United Nations Caracas, Venezuela  
Programmer January 1990–December 1990  
Programming and documentation of database systems

## Publications

Albornoz, J.M. *Digital Microwave Links*, Publications of the Engineering School, Universidad de los Andes, Mérida, Venezuela, 2007.

Albornoz, J.M. *Optimization of the synchronization of a network of stochastically coupled Winfree automata by means of a genetic algorithm*. *Ciencia e Ingeniería*, 27(1), 11-16, Mérida, Venezuela, 2006.

Albornoz, J.M., Parravano, A. *Coupled pseudo-random number generators and their applications in cryptography*. *Ciencia*, 14(1), Maracaibo, Venezuela, 2006.

Albornoz, J.M. *A Wideband Channel Sounder*. MS Thesis, The Ohio State University, Columbus OH, USA, 2001

Albornoz J.M. *A Vector Calculus Primer*. Publications of the Engineering School, Universidad de Los Andes, Mérida, 2001.

Albornoz J.M. *Low-cost Antenna Measurement Techniques*. Promotion Thesis, School of Engineering, Universidad de Los Andes, Mérida, 1995.

Bendito. J.L., Albornoz J.M., Carrasco A. *A study on the behavior of the F2 layer for low solar and geomagnetic activities*. *Ciencia*, 4(3), 241-250, Maracaibo, Venezuela, 1996.

Bendito J.L., Albornoz J.M., Carrasco A. *A study on the behavior of F2 layer critical frequencies for low geomagnetic latitudes and high solar activity*. Presented at the XVI Congreso Nacional de Física, Cali, Colombia, June 1995.

## Service

Vice President, Undergraduate Student Council, Universidad Simón Bolívar, 1988–1989.

## Honors and Awards

Fulbright Fellow, Ohio State University, 1999–2001

Tabacalera Nacional Scholarship, 1984–1985

Fundayacucho Scholarship, 1985–1986