

# Curriculum Vita

**NAME:** Albert Chen, Ph.D.

**HOME ADDRESS:** 1824 North Park Ave  
Shawnee, OK 74801

**PRESENT POSITION:** Professor of Physics, Oklahoma Baptist University

**EDUCATION:** Baylor University, Waco, Texas, USA  
Ph.D. awarded in Physics, 1988.

Max Plank Institute in Heidelberg, German  
Research activity in GIOTTO Project  
July, 1984.

Space Physics Laboratory  
University of Kent at Canterbury, England  
Research activity in GIOTTO Project  
May-June, 1984.

Baylor University, Waco, Texas, USA  
M.S. in Physics, 1984

Chung Yuan University of Science and Engineering  
Chung-Li, Taiwan, R.O.C.  
B.S. in Physics, 1975.

## PROFESSIONAL EXPERIENCE:

Assistant Professor (Tenured 1991), Associate Professor (1993), Professor (2000)  
Division of Natural Science, Oklahoma Baptist University

**Duties:** Teaching in physics and mathematics; courses include Modern Physics, Quantum Mechanics, Electrodynamics, Classical Mechanics, Computer Modeling and Optics, and basic physics courses to both science and non-science students; mathematics courses include College Algebra, and Finite Mathematics; planning, assessing and developing of curriculum in physics. Research in computational physics, Computation Fluid Dynamics, hypervelocity impact ejecta calculation; collaborating with Baylor University Space Physics Laboratory in CODEM project; in charge of the computer system (both hardware and software) for the division of natural science.

**Duration:** August 1986 to present.

NASA Summer Research Fellow

NASA, Stennis Space Center, Engineering System Division  
Stennis Space Center, Mississippi

Duties: Using high speed Unix based work station and GASP program to perform non-destructive investigation. Research a new design of High Altitude Diffuser for Space Shuttle Main Engine.

Duration: May -August, 1996

NASA, Johnson Space Center, Energy System Division, Houston, Texas

Duties: Martian Dust Environment Simulation study. To research, theorize, quantify, and document the Mars dust/wind environment needed for the ESTA thermal-vacuum chamber.

Duration: May-August, 1998, 1999.

NASA, Dryden Flight Research Center, Engineering Research Division,  
Edwards, CA

Duties: Multidisciplinary Finite Element CFD Code, STARS, study and improvement.

Duration: June-August, 2000.

Research Scientist

Baylor University, Space Physics Laboratory, Waco, Texas

Duties: Designing and testing prototype hardware and simulation software at Baylor University Space Physics Laboratory for NASA project CODEM.

Duration: Summer, 1989, 1990, 1991, and 1992

Research Assistant

Department of Physics, Baylor University, Waco, Texas

Duties: Maintained and operated 2 MeV Van de Graaff accelerator and support systems; utilized 2 MeV Van de Graaff accelerator at the University of Kent in England in 1984 to perform hypervelocity impact experiments.

Duration: 1981 to 1984

**MEMBERSHIP IN SCIENTIFIC SOCIETIES:**

American Physics Society

Association of American Physics Teacher

Sigma Pi Sigma National Honorary Society

Hypervelocity Impact Society

## **ADDITIONAL INFORMATION**

### **(A) Honors:**

Teacher of the year, by Mortar Board, Oklahoma Baptist University, 1989.

NASA/ASEE Summer Faculty Fellowship, Stennis Space Center, 1986,1987,  
Johnson Space Center, 1998,1999, Dryden Flight Research Center, 2000.

### **(B) Judge:**

Judged 1984, 1985, 1986 CenTex Science Fair in Waco, Texas.

Judged 1989, 1990, 1991 Oklahoma State Invention Fairs, Oklahoma City,  
Oklahoma.

Judged 1989, 1990, 1991, 1992, 1993, 1994, 1995 and 1996,  
Oklahoma State Science Fairs, Ada, Oklahoma.

## **EXPERIENCE:**

Over 10 years of teaching and research experience in a Computational Physics/Space Physics environment and 6 years of consulting and research engineering in design of experiments. Major technical expertise is in experimental design, numerical modeling and analysis. Extensive experience in VAX/VMS, Linux, PC and MAC systems; have ample experience in FORTRAN programming for scientific computing purposes in both main frame computer as well as supercomputers. Maintained and operated 2 MeV Van de Graaff accelerator and support systems at Baylor University. Utilized a 2 MeV Van de Graaff accelerator at the University of Kent in England in 1984 to perform hypervelocity impact experiments. Full teaching load in physics and mathematics; including Computer Modeling, Electrodynamics, Modern Physics, Electronics, General Physics. Taught both mathematics courses and physics courses at various levels with diverse students. Had two years sound laboratory experience with an emphasis on the environmental problems.

## **CURRENT RESEARCH INTERESTS:**

The current research involving computer networking, large scale computer modeling, Computational Fluid Dynamics research, non-destructive investigation, physics curriculum and instructional skill development, and physics program assessment.