

Cajetan M. Akujuobi, M.B.A., Ph.D.E.E.

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ACADEMIC BACKGROUND

Ph.D. Electrical Engineering, (Information Technology); George Mason University, Fairfax, Virginia	1995
M.B.A., Hampton University, Hampton, Virginia	1987
M.S. in Electrical and Electronics Engineering, Tuskegee University, Tuskegee, Alabama	1983
B.S. in Electrical and Electronics Engineering, Southern University, Baton Rouge, Louisiana	1980
O.N.D. in Electrical & Electronics Engineering, Institute of Management & Technology, Enugu, Nigeria	1974

PROFESSIONAL BACKGROUND

ADMINISTRATION

Prairie View A & M University	2005-Present
<i>Professor & Head, Department of Engineering Technology</i>	
Texas Instruments, Inc.	2001-Present
<i>Texas Instruments' University Relations Manager for Prairie View A&M University</i>	
Prairie View A & M University	2000-Present
<i>Founding Director, the Center for Excellence for Communication Systems Technology Research (CECSTR)</i>	
Prairie View A & M University	2000-Present
<i>Founding Director, High Speed (Broadband) Communication Systems Program</i>	
Prairie View A & M University	2000-Present
<i>Founding Director, DSP Solutions Program</i>	
Prairie View A & M University	1999-Present
<i>Founding Director, Analog & Mixed Signal Program (AMSP)</i>	
Prairie View A & M University	1998-Present
<i>Director, Communication Systems Laboratory</i>	
Norfolk State University, Norfolk, Virginia	1983-1987
<i>Engineering Faculty Head, Electronics Engineering Program</i>	

TEACHING & RESEARCH

Federal University of Technology, Owerri	Dec. 1, 2004 – Jan. 15, 2005
<i>Visiting Professor, Electrical Engineering Department</i>	
Prairie View A & M University	2004-Present
<i>Professor, Electrical Engineering Department</i>	
Prairie View A & M University	2000-Present
<i>Director, PI, Center of Excellence for Communication Systems Technology Research (CECSTR)</i>	
Prairie View A & M University	1998-Present
<i>Associate Professor, Electrical Engineering Department</i>	
Prairie View A & M University	1998-2000
<i>Researcher, NASA Center for Applied Radiation Research.</i>	
The University of Texas in San Antonio, Texas	1997
<i>Adjunct Associate Professor</i>	
Norfolk State University, Norfolk, Virginia	1993-1996
<i>Assistant Professor</i>	
George Mason University, Fairfax, Virginia	1991-1993
<i>CAD Laboratory Manager & Research Associate</i>	

PROFESSIONAL BACKGROUND CONTINUED

TEACHING & RESEARCH CONTINUED

Norfolk State University , Norfolk, Virginia <i>Instructor</i>	1983-1992
Univ. of the District of Columbia , Washington, D.C. <i>Adjunct Associate Professor</i>	1989-1990
Howard University , Washington, D.C. Lecturer	1987-1990
Hampton University , Hampton, Virginia <i>Visiting Lecturer & Consultant</i>	1983 -1985
St. Michael's Secondary School , Orsu Obodo, Nigeria <i>Technical Instructor</i>	1974 – 1977

INDUSTRIAL

Texas Instruments, Inc. , Dallas, Texas <i>Research and Development Faculty Engineer</i>	Summer 1999 & 2000
Advanced Hardware Architectures, Inc. , Pullman, Washington State <i>Systems Engineering Project Manager, Research and Development (1997-1998); Consultant (1998-2000).</i>	1997-2000
Data Race, Inc. , San Antonio, Texas <i>Senior Design and Development Engineer</i>	1997
Schlumberger, Inc. , Austin, Texas <i>Research and Development Engineer</i>	1996-1997
Argonne National Laboratory , Argonne, Illinois <i>Faculty Research Appointment</i>	Summer 1995
Intelsat , Washington, D.C. <i>Research and Development Engineer</i>	Summer 1993
Spectrum Engineering & Technology , Washington, D.C. <i>Principal Research Engineering Manager</i>	1991 - 1992
AT&T Bell Laboratory , Holmdel, New Jersey <i>Member of Technical Staff</i>	Summers 1988 – 1991
NASA Langley Research , Langley, Virginia <i>SIMNET Research Fellow</i>	Summer 1987
AT&T Bell Laboratories , Red Hill, New Jersey <i>Member of Technical Staff</i>	Summer 1986

HONORS AND AWARDS

- ASEE/NSF Invitation as a Panelist for 2006 NSF Graduate Research Fellowship Evaluations Feb. 2006
- Selected as a reviewer for IEEE Transactions on Circuits and Systems, 2005-2006.
- Appointed to many Conference Review and Publication Committees by ASEE, IEEE, etc. in 2000-2006.
- Dr. Akujuobi was appointed to the Curriculum Advisory Committee for Electrical Engineering Program at the Polytechnic University of Namibia in Namibia, Southern Africa. This appointment is for a period of 3 years starting fall 2005 - 2008.
- Appointed by Dr. Wright (President PVAMU) to serve on the PVAMU Infrastructure Technology Subcommittee, 2005-2007 academic year.
- Invited to serve as one of the NSF Panelists in Washington, DC from February 11-13, 2005.
- Invited Visiting Professor, Federal University of Technology, Owerri, Imo State, Nigeria Dec. '04 – Jan. '05
- ASEE/NSF Invitation as a Panelist for 2005 NSF Graduate Research Fellowship Evaluations Feb. 2005
- Appointed to the Curriculum Advisory Committee for Electrical Engineering Program at the Polytechnic University of Namibia in Namibia, Southern Africa. **This appointment is for a period of 3 years starting fall 2005.**
- Appointed by Dr. Wright (President PVAMU) to serve on the PVAMU Infrastructure Technology Subcommittee, 2005-2006 academic year.
- IEEE Elevation to the grade of Senior Member (Only 7% of 382,000 IEEE members hold this grade) reflecting professional maturity and significant professional achievements. Sept. 10, 2003
- Approval and the Establishment of the Center of Excellence for Communication Systems Technology Research (CECSTR) as an organized unit of Prairie View A&M University by The Texas A&M University Chancellor, Howard D. Graves, effective August 1, 2003 August 31, 2003
- Approval of the Center of Excellence for Communication Systems Technology Research (CECSTR) by The Texas A&M University System Board of Regents in Commerce, Texas July 25, 2003
- US News and World Report Honorable Mention of the Center of Excellence for Communication Systems Technology Research (CECSTR), discussing Leading Educational Institutions in Texas April 14, 2003
- Global Technology Conferences Award for my Contribution on “ Test-Point Selection Method for Mixed Signal Systems Using Discrete Wavelet Transform”, at The International Signal Processing Conferences (ISPC), Dallas, Texas April 3, 2003
- Global Technology Conferences Award for my Contribution on “ A Baseline Test for the Ability to Support up to Eight Derived Lines on the IADs for VoDSL”, at The International Signal Processing Conferences (ISPC), Dallas, Texas April 1, 2003
- Recognized by extending Special Invitation to Attend the Quality Education for Minorities (QEM) Network their 12th Annual QEM/MSE Network National Conference in Washington, D.C. as one of the Panelists on Courses and Curricula and their effects on enhancing our Universities. March 2003

HONORS AND AWARDS CONTINUED

- Chancellor, Texas A & M Systems Recognition for Commitment to Prairie View A&M University and The Texas A&M University System because of my research in Algorithms that has Space Applications. February 14, 2003
- Congratulation Letter from the Texas Instruments Director of Public Affairs Torrence H. Robinson thanking me for the able way I have coordinated and managed the Texas Instruments' Grant after his official review process ended. December 10, 2002
- International Association on Science, Technology and Engineering Development (IASTED), Award, Certificate of Participation for my Contribution on "A Novel Parametric Test Method for Communication Systems Mixed-Signal Circuits Using Discrete Wavelet Transform", in the Communications, Internet, and Information Technology (CIIT) Conference. November 2002
- College of Engineering Excellence in Research Award for faculty and staff at Prairie View A&M University for Quality Research Activities December 2001
- Recognized by extending Special Invitation to Attend the Quality Education for Minorities (QEM) Network their 11th Annual QEM/MSE Network National Conference in Washington, D.C. as the recipient of first place in the Scholarly Productivity competition held at the Teagle-funded Scholarly Productivity Workshop at Texas Southern University, Houston, Texas, March 2001
- Honorary Appointed Member of the Texas Instruments', Inc. Data Converter Group 2000-Present
for contributions to research activities in the areas of Data Converters – Mixed Signal Systems.
- Listed in WHO'S WHO in Science and Engineering, 3rd Edition-Latest Edition 1996-Present
- Listed in WHO'S WHO in the South and Southwest, 24th Edition – Latest Edition 1995-Present
- Listed in WHO'S WHO in the World, 13th Edition-Latest Edition 1996-Present
- Listed in WHO's WHO in American Education, 5th Edition-Latest Edition 1996-Present
- Listed in WHO's WHO in Finance and Industry, 30th Edition-Latest Edition 1996-Present
- Listed in International WHO's WHO of ProfessionalsTM 1998-Present
- **Invited Guest Speaker** at the Mixed Signal-Based Meeting and Workshop at Univ. of Puerto Rico, Mayaguez Campus, Mayaguez, Puerto Rico 2000
- IEEE Communication's Society Certificate of Appreciation for Contributions to Communications 1999
- Selected to participate in the first NSF sponsored workshop "Developing Numerical Engineering Problems to Accompany Existing and New Courses in Engineering Ethics and Professionalism". 1995
- Distinguished Citizenship Award by Governor Scharfer of the State of Maryland September 13, 2003
- Commonwealth of Virginia Council of Higher Education Ph.D. Fellowship Award Recipient 1992 –1993
- Norfolk State University Faculty Development Fellowship Award Recipient for Ph.D. Studies 1987-1991

HONORS AND AWARDS CONTINUED

- Selected as one of the United States American Society for Engineering Education (ASEE) representatives for an Educational and Consultation Mission to Asia 1989
- Certificate of Recognition for Affirmative Action from the New Jersey Division of Affirmative Committee for AT&T Consumer Products Laboratories 1988
- Norfolk State University Physics and Engineering Club Certificate of Appreciation 1986
- Kellog's Honor Award 1985
- IEEE & Heathkit/Zenith Certificate of Achievement in Microprocessors and Digital Techniques 1982-1983
- Alpha Kappa Mu - National Honor Society (Scholarship Honor Award) 1978

RESPONSIBILITIES IN RECENT POSITIONS

ADMINISTRATION

Prairie View A & M University 2005-Present

Professor & Head, Department of Engineering Technology

- Manage the affairs, faculty and staff of the Engineering Technology Department
- Represent the Engineering Technology Department at the Engineering Council Meetings
- Manage the Budget Issues of the Engineering Technology Department
- Manage the day-to-day issues of the Electrical Engineering Technology, Computer Engineering Technology, and Computer Aided Design (CAD) Programs
- Managing the Instructional Issues of all Engineering Technology Department Students

Texas Instruments, Inc. 2001-Present

Texas Instruments' University Relations Manager for Prairie View A&M University

- Manages the Texas Instruments' AMSP and DSP Solutions Programs
- Texas Instruments University Relations Manager & Representative at PVAMU
- Identify and Train the talented PVAMU students in the areas of AMSP and DSP Solutions
- Manage the Texas Instruments Scholar's Program
- Interact with Texas Instruments Hiring Managers & Key Executive Administrators
- Identify and Award Texas Instruments Scholarships and Assistantships to Deserving Students
- Recommend PVAMU Students to Texas Instruments for Coop/Internship and Permanent Hiring
- Conduct Weekly Seminars for Texas Instruments' Scholars

RESPONSIBILITIES IN RECENT POSITIONS CONTINUED

ADMINISTRATION

Prairie View A & M University

2000-Present

Founding Director, the Center of Excellence for Communication Systems Technology Research (CECSTR),

- Work includes implementing the Center's mission which is to establish a comprehensive research center with the capability of seeking an understanding of selected aspects of communication (telecommunication) systems, DSP Solutions, Image Processing, Mixed Signal Systems, control systems and Broadband Access Technologies Systems by way of algorithm developments, modeling, simulation, analysis, design, and testing.
- Work involves development of various research and instructional laboratories and recruiting personnels to serve in various positions at the center.
- Designing and Developing courses and research portfolios to enhance and improve engineering and educational curriculum.
- Manages the day-to-day administration of the center.
- Development of human resources in the various areas of communication systems technologies for various research and industrial organizations to tap into in order to fulfill their much needed engineering manpower needs.
- Formulating and implementing policies at the center that seeks to answer relevant questions concerning various strategic enterprises.
- Exploring means of using the knowledge gained as a result of the work done at the envisioned center to benefit mankind and increase the State of Texas and the Nation's economic competitiveness.
- Managing different projects and equipment at CECSTR estimated over \$5,000,000.00.
- Developing Proposals, Interacting with different funding agencies and industries seeking funding for CECSTR.

Prairie View A & M University

2000 - Present

Founding Director, High Speed (Broadband) Communication Systems Program,

- Work involves Broadband Communication Network technologies that allows for broadband access from the residence or small office to a network service provider and Internet Service Provider (ISP). It is also an access technology that can be used to convert the access line into a high-speed digital link and to avoid overloading the circuit-switched Plain Service Telephone Network (PSTN).
- Work includes development of the high-speed (broadband) communication systems research and instructional laboratory and recruiting personnels to serve in various positions in the lab.
- Designing and Developing courses and research portfolios to enhance and improve curriculum in the areas of high-speed (broadband) communications engineering.
- Manages the day-to-day administration of the laboratory.
- Development of human resources in the in the areas of high speed (broadband) communications engineering for various research and industrial organizations to tap into in order to fulfill their much needed engineering manpower needs.
- Formulating and implementing policies in the laboratory that seeks to answer relevant questions concerning various strategic enterprises.

Prairie View A & M University

2000 - Present

Founding Director, High Speed (Broadband) Communication Systems Program Continued,

- Exploring means of using the knowledge gained as a result of the work done in the laboratory to benefit mankind and increase the State of Texas and the Nation's economic competitiveness.
- Worked with faculty, students, and staffs from different parts of the world and vendors representing state, national and international affiliated companies.
- Managing projects and equipment with a starting total budget of about \$600,000.00 excluding equipment and Sprint donated labor.

RESPONSIBILITIES IN RECENT POSITIONS CONTINUED

ADMINISTRATION

Prairie View A & M University

1999-Present

Founding Director, Analog & Mixed Signal Program (AMSP) and DSP Solutions Program

- Formulating and implementing, research, instructional and strategical policies in both the DSP and Mixed Signal laboratories that will add value to the body of knowledge in these vital areas thereby helping alleviate the lives of mankind worldwide and solving the problems of limited trained engineers in these two vital technical areas.
- Work involves implementing Mixed Signal and Digital signal processing (DSP) solutions to complex products such as digital cellular phones, modems, disk drive servo control, PC multimedia, and home theater that are growing rapidly worldwide.
- Manages the day-to-day administration of the laboratories.
- Developing human resources in the areas of DSP solutions and Mixed signal engineering for various research and industrial organizations to tap into in order to fulfill their much needed engineering manpower needs.
- Managing projects and equipment with a total budget of over \$700,000.00.

TEACHING & RESEARCH

Prairie View A & M University

Sept. 2004-Present

Professor, Electrical Engineering

- Developing human resources in the areas of communication systems engineering for various research and industrial organizations to tap into in order to fulfill their much needed engineering manpower needs.
- Managing lab projects and equipment worth millions of dollars.
- Teaching electrical engineering courses at both undergraduate and graduate levels.
- Supervised and Advised Students in their class Projects and research activities both undergraduates and graduates.
- Chair and/or member of important Departmental, Engineering, University-Wide and National committees.
- Initiating and Developing State-of-the-Art educational and research laboratories.
- Conducting Research in the areas of Image & Signal Processing, Mixed Signal Systems, DSP Solutions and Broadband Communication Systems.

Prairie View A & M University

1998-Aug. 2004

Associate Professor

- Developing human resources in the areas of communication systems engineering for various research and industrial organizations to tap into in order to fulfill their much needed engineering manpower needs.
- Managing lab projects and equipment worth millions of dollars.
- Teaching electrical engineering courses at both undergraduate and graduate levels.
- Supervised and Advised Students in their class Projects and research activities both undergraduates and graduates.
- Chair and/or member of important Departmental, Engineering, University-Wide and National committees.
- Initiating and Developing State-of-the-Art educational and research laboratories.
- Conducting Research in the areas of Image & Signal Processing, Mixed Signal Systems, DSP Solutions and Broadband Communication Systems.

TEACHING & RESEARCH

Prairie View A & M University 1998-2000
Researcher, NASA Center for Applied Radiation Research.

The University of Texas in San Antonio, Texas 1997
Adjunct Associate Professor
Taught Electrical & Computer Engineering Courses - Linear Systems.
Supervised and Advised Students in their class Projects.

Norfolk State University, Norfolk, Virginia 1993-1996
Assistant Professor, Electrical Engineering

- Taught Electrical & Electronics Engineering, Computer Science, Physics, Mathematics and Engineering Technology courses.
- Conducted Research in the area of Image & Signal Processing, and Communication Systems.
- Presented research publications to IEEE, IASTED, ISA, Modeling & Simulation conferences and NASA Langley Research.
- Participated in Departmental and school-wide committee assignments.
- Chaired, Electronics Engineering Curriculum Development and Accreditation Committee.
- Co-Chaired, Electronics Engineering Assessment Committee.
- Founded IEEE Student Chapter, Founding IEEE Student Counselor and advisor.
- Campus Representative of many International and National Organizations - IEEE, ASEE & ISA.

George Mason University, Fairfax, Virginia 1991-1993
CAD Laboratory Manager & Research Associate

- Supervised and Contributed in the development of the Computer-Aided Design Laboratory capable for lectures, demonstrations and practical computer-aided design projects.
- Coordinated and contributed in the administrative affairs of the Lab - budgeting, hiring graduate assistants, work scheduling, student advisements in completing their projects, and participating in Laboratory and school meetings.
- Participated in the Signal Processing and Communication Research Laboratory using Wavelets and Fractals.
- Presented research publications to IEEE, IASTED, conferences and some major International and National research organizations - Schlumberger Inc., Argonne National Laboratory. **The research resulted to an invited co-authored book chapter in the 2D and 3D Digital Signal Processing Techniques and Applications, Control and Dynamic Systems Series, ed. C.T. Leondes, vol. 67, Academic Press, Inc., San Diego, 1994.**

TEACHING & RESEARCH

Norfolk State University, Norfolk, Virginia

1983-1992

Instructor

- As the only Electrical Engineer faculty in the program, I served as Head, Electronics Engineering Program, 1983-1987.
- Coordinated and directed the administrative affairs of the electronics engineering program - budgeting, course scheduling, student advisement, formulating and implementing policies, faculty hiring and participating in program and school-wide meetings.
- Taught Electrical & Electronics Engineering, Computer Science, Physics, Mathematics and Engineering Technology courses.
- Conducted Research in the area of Image & Signal Processing, and Communication Systems.
- Presented research publications to IEEE, IASTED, ISA, Modeling & Simulation conferences and NASA Langley Research.
- Participated in Departmental and school-wide committee assignments.
- Chaired, Electronics Engineering Curriculum Development and Accreditation Committee.
- Co-Chaired, Electronics Engineering Assessment Committee.
- Started the first IEEE Student Organization and was the first IEEE Student Counselor and advisor.
- Campus Representative of many International and National Organizations - IEEE, ASEE & ISA.

Univ. of the District of Columbia, Washington, D.C.

1989-1990

Adjunct Associate Professor

- Taught Signals & Systems I & II, Networks I & II, Electronics I & II.
- Participated in the Electrical Engineering ABET Accreditation Process

Howard University, Washington, D.C.

1987-1990

Lecturer

- Taught Digital Systems, Senior Project.
- Participated in the Electrical Engineering ABET Accreditation Process.

Hampton University, Hampton, Virginia

1983 -1985

Visiting Lecturer & Consultant

- Taught Electrical & Electronics Engineering and Mathematics courses.
- Consultant to the \$5 Million grant award for the Kenan program Cognitive Development Laboratory (CODE) Lab.

St. Michael's Secondary School, Orsu Obodo, Nigeria

1974 – 1977

Technical Instructor

INDUSTRIAL

Texas Instruments, Inc., Dallas, Texas

Summers 1999 & 2000

Research and Development Faculty Engineering Consultant

- Study of the Wavelet Transform-Based Testing of Analog-to-Digital Converters (ADCs) with a view to improving mixed-signal testing techniques from conventional methods. Computer Modeling and Simulations are applied using MATLAB, LABView, and Mathematica Software Packages.
- Analysis, Evaluation and Characterization of Mixed-Signal Systems from systems and application levels with a view to Designing for Maximum System Shrinkage. Functionality tests were performed. Computer Modeling and Simulations were applied using Cadence Software Package.

RESPONSIBILITIES IN RECENT POSITIONS CONTINUED

INDUSTRIAL

Advanced Hardware Architectures, Inc., Pullman, Washington State September 1997-Present
Systems Engineering Project Manager, Research and Development (1997-1998); Consultant (1998-Present).

- Managing Engineers working on systems engineering issues and the research and development of High-Speed communication modems - xDSLs.
- Worked and managed projects on different varieties of digital subscriber lines (xDSLs) analog front ends (AFEs).
- Responsible for issues with different Communication Standards: ANSI-T1E1.4, ITU, MCNS, and ETSI.
- Represented the company within the standard organizations both nationally and worldwide.
- Managed and directed the investigation of future Technology product issues.
- Directed, negotiated and managed contracts with potential partners.
- Reported to two Vice Presidents - Engineering, and Research & Development.

Data Race, Inc., San Antonio, Texas April – August 1997
Senior Design and Development Engineer

- Project Management Leader Responsible for the design and development of ISDN BRI and PRI client/server modems and multimodems for Telecommuting applications.
- Developed requirements and specifications for the modem and multimodem products.

Schlumberger, Inc., Austin, Texas 1996 - March 1997
Research and Development Engineer

- Contributed in the development of Multiflex Smart Card personalizations (soft-cryptoflex), which were used in developing the Schlumberger-Litronic and the Schlumberger-Microsoft products.

Argonne National Laboratory, Argonne, Illinois Summer 1995
Faculty Research Appointment

- Conducted comparative analysis of the effects of nonorthogonal and orthogonally compensated w-transform compression using the quadratic spline and Daubechies wavelet coefficients. This extensive experimental investigation resulted in better compression ratios.
- Published, presented paper and chaired wavelet session of IEEE Southeastern Conference in 1996.

Intelsat, Washington, D.C. Summer 1993
Research and Development Engineer

- Designed and developed a burst monitoring and measurement system used in upgrading existing NRDE for monitoring and measuring burst anomalies or repetition of anomalies. This system not only helps in troubleshooting but also enhances the assessment of burst quality from Intelsat operations center on an as needed basis.
- Successfully installed the developed NRDE upgrade at Clarksburg. Upgrade is saving Intelsat approximately \$1 million per year in labor and repair costs of satellites, and is now helping Intelsat avoid burst anomalies or repetition of anomalies.

Spectrum Engineering & Technology, Washington, D.C. 1991 - 1992
Principal Research Engineering Manager

- Manager responsible for the successful conduction of multichannel multipoint distribution system interference studies and antenna geometric design that passed FCC rules and regulations.
- Studies were done for prospective radio and television station owners.
- Negotiated, signed antenna tower contracts and filed applications with FCC on behalf of customers.

INDUSTRIAL

AT&T Bell Laboratory, Holmdel, New Jersey

Summers 1988 – 1991

Member of Technical Staff

- Designed state transitions and action routines for telephone-based speaker verification system.
- Designed a flow chart for the speaker verification system, which included state transition performances and action routines. The designed state transition and action routines were adopted simulated and are still used today in AT&T's telephone-based speaker verification systems.
- Designed and developed an automatic range simulation system for the measurement of signal, noise and distortion (SINAD) for AT&T cordless phones. This provided an opportunity for testing and evaluation of phones at point of sales, which eliminated unnecessary shipping to repair centers in Singapore and Hong Kong. It saved close to \$1.5 million in shipping, labor and repair costs.
- Devised methodology to achieve commonality for all AT&T 5000 series handset cordless phones, which resulted in the Universal handset currently in use. This saved design, manufacturing, production and repair costs.
- Designed and developed end-user telephone management applications prototype using firmware package 3 (FP3)/application programming interface (API) on an ISDN 750x series telephones. The prototype was adopted and used by AT&T in demonstrating the concepts and capabilities of API to AT&T customers and potential software vendors. The features developed include personal directory and incoming call log.

NASA Langley Research, Langley, Virginia

1987

SIMNET Research Fellow

- Selected as a member of a team of engineers assigned to research, design and develop a simulation network (SIMNET) by NASA. The network was successfully developed and tested under the auspices of NASA Langley Research. From 1987 to date, the network has served the participating institutions to enhance, share resources and coordinate their research efforts, thereby saving the institutions an average of \$500,000 per year.

AT&T Bell Laboratories, Red Hill, New Jersey

Summer 1986

Member of Technical Staff

- Developed computer-based signal generation equipment capable of generating 139,264 data points in 17 seconds, replacing equipment, which previously generated 10,000 data points in three hours. Presented project results to 20 Bell Lab department managers resulting in immediate internal sales for use in product development.

CONSULTANCY SERVICES

Consultant: State of Louisiana, Baton Rouge, LA

Nov. 22, 2006 – Feb. 27, 2007

- One of the Out-of-State Experts Participating in the In-Dept Mail Review of Research Proposals Submitted Under the Research Competitiveness Subprogram (RCS) of the Board of Regents Support Fund Research and Development (R&D) Program.

Consultant: State of Louisiana, Baton Rouge, LA

Nov. 21, 2005 – Feb. 27, 2006

- One of the Out-of-State Experts Participating in the In-Dept Mail Review of Research Proposals Submitted Under the Research Competitiveness Subprogram (RCS) of the Board of Regents Support Fund Research and Development (R&D) Program.

National Science Foundation, Arlington, VA

February 10-12, 2006

- One of the Invited panelists for the Graduate Research Fellowship Program (GREP) to evaluate NSF GREP Fellowships and make recommendations for Awards.

National Science Foundation, Arlington, VA

February 11- 13, 2005

- One of the Invited panelists for the Graduate Research Fellowship Program (GREP) to evaluate NSF GREP Fellowships and make recommendations for Awards.

Hampton University, Hampton, Virginia

1983 -1985

Consultant

- Consultant to the \$5 Million grant award for the Kenan program Cognitive Development Laboratory (CODE) Lab.

Cajetan M. Akujuobi, M.B.A., Ph.D.E.E.

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MOST RECENT COURSES TAUGHT

Courses Taught	Semester	Course Title	Course Type	Department	College	University
ELEG 6553-001	Spring 2007 Fall 2005 Fall 2003	Advanced Analog Mixed Signal Systems	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 6333-001	Spring 2006 Spring 2004	Wavelets and Their Application	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 6423-001	Fall 2006, Spring 2005	Advanced Broadband Communication Systems	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 6213-001	Summer 2005	Adv. Digital Communication Systems	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 3023-001	Spring 2005	Signals & Systems	Undergraduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 5423-001	Spring 2005 Spring 2003	Advanced Broadband Communication Systems	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 6553-001	Fall 2003	Advanced Analog Mixed Signal Systems	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 4313-001	Fall 2003 Fall 2002	Broadband Communication Systems I	Undergraduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 5253-001	Fall 2002	Advanced Analog Mixed Signal Systems	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 5083-001	Spring 2002 Spring 1999	Advanced Digital Signal Processing	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 4003-001	Spring 2002 Spring 2000 Fall 2000 Spring 1999 Fall 1999	Communication Theory	Undergraduate (Lecture + Project)	Electrical	Engineering	PVAMU
GNEG 5993-001	Spring 2002	Independent Study	Graduate (Research Project)	Electrical	Engineering	PVAMU
GNEG 5193-021	Fall 2001	Advanced Mixed Signal Techniques	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 4003-001	Fall 2001	Communication Theory	Undergraduate (Lecture + Project)	Electrical	Engineering	PVAMU
ELEG 4273-001	Spring 2000 Fall 1999	Analog Mixed Signal Techniques	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
GNEG 5193-021	Fall 2000	Advanced Mixed Signal Techniques	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 4063-001	Spring 1999	Communication Theory Lab	Undergraduate (Laboratory)	Electrical	Engineering	PVAMU

MOST RECENT COURSES DEVELOPED

Courses Developed	Date	Taught/Not Yet Taught	Course Title	Course Type	Department	College	University
ELEG 6333-001	Fall 2003	Taught Spring 2004	Wavelets and Their Applications	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 5253/6553-001	Fall 2003	Taught more than 4 times	Advanced Mixed Signal Techniques	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 2083-001	Spring 2002	Not Yet Taught	Introduction to DSP Solutions	Undergraduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 4451-001	Spring 2002	Not Yet Taught	DSP Solutions Laboratory	Undergraduate (Lecture + Project)	Electrical	Engineering	PVAMU
ELEG 4163-001	Spring 2002	Not Yet Taught	DSP Design and Testing Techniques	Undergraduate (Lecture + Project)	Electrical	Engineering	PVAMU
ELEG 4273-001	Spring 2002	Taught more than 3 times	Analog Mixed Signal Techniques	Undergraduate (Lecture + Project)	Electrical	Engineering	PVAMU
ELEG 4273-001	Spring 2002	Taught more than 3 times	Analog Mixed Signal Techniques I	Undergraduate (Lecture + Project)	Electrical	Engineering	PVAMU
ELEG 4283-001	Spring 2002	Taught more than 3 times	Analog Mixed Signal Techniques II	Undergraduate (Lecture + Project)	Electrical	Engineering	PVAMU
ELEG 4291-001	Spring 2002	Taught	Analog and Mixed Signal Techniques Laboratory	Undergraduate (Lecture + Project)	Electrical	Engineering	PVAMU
GNEG 5193-021	Fall 2001	Taught	Advanced Mixed Signal Techniques	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU
ELEG 4313-001	Fall 2002	Taught	Broadband Communication Systems I	Undergraduate (Lecture + Project)	Electrical	Engineering	PVAMU
ELEG 4323-001	Fall 2002	Not Yet Taught	Broadband Communication Systems II	Undergraduate (Lecture + Project)	Electrical	Engineering	PVAMU
ELEG 5243-001	Spring 2002	Taught more than 3 times, Fall 2006	Advanced Broadband Communication Systems	Graduate (Lecture + Project)	Electrical	Engineering	PVAMU
ELEG 5193-021	Fall 2001	Taught	Advanced Mixed Signal Techniques	Graduate (Lecture + Research Project)	Electrical	Engineering	PVAMU

PUBLICATIONS AND PRESENTATIONS

Thesis/Dissertation/Projects

Ph.D. Dissertation

Wavelets and Fractals: A Quantitative Assessment of their Performance in Image Reconstruction, Restoration and Segmentation.

M.S. Research Project

A Research Study on the Characteristics for all Major types of A/D Converters such that Selection for a Particular Application can be Easily made Based on Cost and Performance Criteria (One type designed and built).

Books

- **Invited Book Chapters**

Matthew N.O. Sadiku and **Cajetan M. Akujuobi**, Chapter 14 – Computer Networks, “Computers, Software Engineering, and Digital Devices; in *The Electrical Engineering Handbook*, 3rd ed., Edited by Richard C. Doff, CRC, 2006.

M. N. O. Sadiku and **C. M. Akujuobi**, “Electromagnetics”, **an Invited Book Chapter** to *The Engineering Handbook*, in C. Dorf (ed.), 2nd Edition, CRC Press, chap. 114, pg.1-9, 2005.

C. M. Akujuobi and A. Z. Baraniecki, “A Comparative Analysis of Wavelets and Fractals,” **an Invited Book Chapter** to the *2D and 3D Digital Signal Processing Techniques and Applications, Control and Dynamic Systems Series*, ed. C. T. Leondes, vol. 67, Academic Press, Inc., San Diego, pg. 143-197, 1994.

- **Book Manuscripts**

C. M. Akujuobi and M. O. Sadiku, Manuscript of Book on “**Broadband Communications**” Completed.

C. M. Akujuobi, Manuscript of Book on “**Wavelets, Fractals and Their Applications**” Completed.

C. M. Akujuobi, Manuscript of Book on “Computer-Based Algorithms and Programs for Wavelet-Based Signal Processing and Applications Using MATLABTM” (**In Preparation**).

Journal Papers Published or Submitted for Publication

Cajetan M. Akujuobi, Jie Shen, and Matthew N. O. Sadiku, “A New Parallel Greedy Bit-Loading Algorithm With Fairness for Multi-Users in a DMT System”, *IEEE Transactions on Communications*, Vol. 54, No. 8, August 2006.

W. Ali, Yongpeng Zhang, **C.M. Akujuobi**, C.L. Tolliver, L.S. Shieh, “DSP-based PID Controller Design for the PMDC Motor”, *International Journal of Modeling and Simulation*, Vol. 26, No. 2, 2006.

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Cary Smith, **Cajetan M. Akujuobi**, Kurt Kloesel and Phil Hamory, An Approach to Vibration Analysis Using Wavelets in an Application of Aircraft Health Monitoring, *Journal of Mechanical Systems and Signal Processing*, **Accepted for Publication June 16, 2006**, Ref. # MSSP05-189R2, Elsevier, 2006.

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Matthew N.O. Sadiku and **Cajetan M. Akujuobi**, "Magnetic Levitation", *IEEE Potentials Journal*, Vol. 25, No. 2, March/April 2006, pg. 41-42.

Cajetan M. Akujuobi, Scott Briles and Jian-ao Lian, "On Morlet and Spline Wavelets", *International Journal of Wavelets, Multiresolution and Information Processing (IJWMIP)*, Accepted for Publications, to appear November 2006.

S. M. Musa, Emmanuel Opara, **Cajetan M. Akujuobi**, and N. F. Mir," UTILIZATION OF BUFFERS FOR PERFORMANCE EVALUATION OF LOCAL AREA NETWORK PROTOCOLS", Communication of the International Information Management Association Journal (CIIMA)-in press, October 2006.

S. M. Musa, **Cajetan M. Akujuobi**, and N. F. Mir," VoDSL Information Management for Broadband Communication Network Access," *Journal of Computing and Information Technology* in press October 2006.

M. N. O. Sadiku, S.M. Musa, and **C. M. Akujuobi**," SMART MATERIALS AND THEIR APPLICATIONS," *IEEE Potential Journal* submitted March 16, 2006.

C. M. Akujuobi and Matthew N. O. Sadiku, "The Present and Future of Broadband Communication", *IEEE Potential Journal*, October/November 2005, pg. 12-16.

Cajetan M. Akujuobi and Jian-ao Lian, "Image Compression Using Nonorthogonal and Orthogonally Compensated W-Matrices", *Chinese Journal of Engineering Mathematics*, Vol. 22, No. 5, Oct. 2005.

Matthew N. O. Sadiku, **Cajetan M. Akujuobi** and Raymond C. Garcia, "An Introduction to Wavelets in Electromagnetics", *IEEE Microwave Magazine*, June 2005.

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W. Ali, Yongpeng Zhang, **Cajetan M. Akujuobi**, Charles Tolliver, and Leang-San Shieh, "DSP-Based PID Controller Design for the PMDC Motor," *International Journal of Modeling and Simulation*, (In Press).

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Yongpeng Zhang, **C.M. Akujuobi**, W. Ali, C.L. Tolliver, Leang-San Shieh, "Load Disturbance Resistance Speed Controller Design for PMSM", *IEEE Trans. On Industrial Electronics*, paper no. TIE-00121-2004, Accepted for publications, October 2004.

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C. M. Akujuobi, “Broadband Applications in Sub-Saharan Africa”, *Journal of Science, Business & Agriculture*, ISBN 978-30999-0-3, ISSN No.1, Vol. 1, 4th Quarter, 2003.

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C. M. Akujuobi, “Hot New Science and Engineering Research at the Center of Excellence for Communication Systems Technology Research (CECSTR) at Prairie View A & M University”, Appeared as “New Science and Engineering Research at America’s Black Colleges” Editor, Lango Deen, US Black Engineer & Information Technology Journal, Career Comm. Group, Inc., p. 16-20, August/September 2003.

W. Ali, Y. Zhang, **C. M. Akujuobi**, C. Tolliver, and L.S. Shieh, DSP-Based PID Controller Design for the PMDC Motor”, *Modeling and Simulation Journal*, Submitted, Dec. 2003.

C. M. Akujuobi, M. N. O. Sadiku, Lan Hu, “Effective Number of Bits testing of Mixed-Signal Systems Using Discrete Wavelet Transform”, **Currently Being Revised after initial Acceptance for Re-Submission** , *IEEE Transactions on Instrumentation and Measurement*, Paper No. IM-6594, April 2003.

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S. M. Musa, Emmanuel Opara, **Cajetan M. Akujuobi**, and N. F. Mir,” UTILIZATION OF BUFFERS FOR PERFORMANCE EVALUATION OF LOCAL AREA NETWORK PROTOCOLS”, the 17th Annual International Information Management Association (IIMA) conference, New York, October 4-October 7, 2006.

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Yongpeng Zhang, G. Song, H. Chen, **C.M. Akujuobi**, “Non-Model Based Frame Control with SMA Brace”, *10th ASCE Aerospace Division International Conference on Engineering, Construction and Operations in Challenging Environments (Earth & Space 2006)*, League City/Houston, TX, Mar 5-8, 2006.

Yongpeng Zhang, **Cajetan M. Akujuobi**, Matthew Sadiku, and Tokunbo Ogunfunmi, “Robust Motor Controller Design Robust Motor Controller Design Implemented with TMS320F240 DSP”, *Texas Instruments Developer Conference (TIDC’06)*, Dallas, TX, Feb 28-Mar 2, 2006.

M. N. O. Sadiku, **C. M. Akujuobi**, and S.M. Musa, “MONTE CARLO ANALYSIS OF TIME DEPENDENT PROBLEMS”, Symposium Engineering Week 2006 (Feb. 20-25) at PVAMU.

S. M. Musa and **Cajetan M. Akujuobi**, “Listening Quality for VoDSL” Poster Presentation at Oberlin Conference on Computation and Modeling 2005: The Undergraduate Arena, November 4-6, 2005, Oberlin, Ohio.

S. M. Musa and **Cajetan M. Akujuobi**, “A Test Performance of Broadband Technology for the Efficiency of Listening Quality using VoDSL”, Proceeding of Fourth IASTED International Conference on CIIT –October 31-November 2, 2005, 2005 Cambridge, USA, paper number 496-048.

Yongpeng Zhang, **Cajetan M. Akujuobi**, Warsame Ali, Charles Tolliver, and Shieh, “Observer-based Load Disturbance Compensation for Motor Drive with DSP Implementation”, 31st Annual Conference of the IEEE Industrial Electronics Society (IECON’05), Raleigh, North Carolina, Nov. 6-10, 2005.

Nakita Bowman, S. M. Musa; **Cajetan Akujuobi**, Kendall T. Harris,” Disabling Weapons Systems Versus Developing Weapon Systems”, 3rd Annual Texas A&M University System Pathways Student Research Symposium, Texas A&M University-Kingsville, Texas, November 4-5, 2005.

Chris Stewart, Brooks Angelita, Melissa Taylor, “DSP Applications in Smart Material Control”, 3rd Annual Texas A&M University System Pathways to Doctorate Research Symposium, Texas A&M University-Kingsville, Nov 4 - 5, 2005. (**Advisor: Dr. Yongpeng Zhang, & Dr. Akujuobi**).

Cary Smith and **Cajetan M. Akujuobi**, “Vibration Analysis using Wavelet Techniques coupled with Structural Modeling of the Pathfinder Plus Wing,” FEMLAB Conference 2005, Cambridge, MA, October 23-25, 2005, Accepted for Publication in Proceedings.

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Cajetan M. Akujuobi, Shumon Alam and Matthew N. O. Sadiku, “Development, Training and Implementation of Test Automation for ADSL Interoperability and Reliability Studies”, 4th ASEE/AaeE Global Colloquium on Engineering Education Australian in Sydney, Australia, 26-30 September 2005.

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Ben Franklin and **C. M. Akujuobi**, “ADC Automated Testing Using LabView Software”, TAMUS Pathways Research Symposium, Galveston, Texas, Nov. 14-15, 2003.

Olubusayo M. Oluwagbemi and **Cajetan M. Akujuobi**, “Application of Artificial Intelligence Principles to Remote Data Mining Problems”, TAMUS Pathways Research Symposium, Galveston, Texas, Nov. 14-15, 2003.

Shumon Alam and **Cajetan M. Akujuobi**, “Development of Test Automation for ADSL Interoperability and Reliability Tests”, TAMUS Pathways Research Symposium, Galveston, Texas, Nov. 14-15, 2003.

Cajetan M. Akujuobi and Cary Smith, “Wavelet-Based Algorithm for Vibration Detection in an Aeroelastic System”, TAMUS Pathways Research Symposium, Galveston, Texas, Nov. 14-15, 2003.

Jie Shen and **Cajetan M. Akujuobi**, “Dynamic Spectrum Management”, TAMUS Pathways Research Symposium, Galveston, Texas, Nov. 14-15, 2003.

C. M. Akujuobi, “On the Development and Teaching of a Broadband Communication-Based Curriculum at Prairie View A&M University”, Proc. ASEE Conference, Nashville, TN, June 22-25, 2003.

C. M. Akujuobi, “On the Development, Simulation and Testing of a Mixed-Signal Flash ADC with Application to a Digital Voltmeter”, Proc. ASEE Conference, Nashville, TN, June 22-25, 2003.

Sarhan Musa and **Cajetan M. Akujuobi**, “A Baseline Test for the Ability to Support Up to Eight Derived lines on the IADs for VoDSL”, Proceedings GSPX-ISPC, Dallas, March 31 – April 3, 2003.

Cajetan M. Akujuobi, Matthew N. O. Sadiku, Jian-ao Lian and Lan Hu, “Test - Point Selection Method for Mixed Signal Systems Using Discrete Wavelet Transform”, Proceedings GSPX-ISPC, Dallas, March 31 – April 3, 2003.

C. M. Akujuobi and Lan Hu, “Implementation of the Wavelet Transform-Based Techniques for Static Testing of Mixed Signal Systems”, Proc. IASTED international Conf., Modeling and Simulation, Palm Springs, California, USA, pg.56-59, February 24-26, 2003.

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L. J. Cruz-Rivera, M. R. Marrero-Cruz, **C. M. Akujuobi**, R. Wilkins, K. Kirby, K. Aviles, and H. Torres, "Gain and Bias Current Characterization of BiCMOS Internally Compensated Linear Device Subjected to Gamma Irradiation", Preprint, 2001.

C.M. Akujuobi, "Quantitative Performance Image Analysis Using Different Wavelet Filter Taps." Proc. ICSPAT, Dallas, Texas, October 12-16, 2000.

C.M. Akujuobi, "On the Novel Development of a Hybrid-Based Wavelet and Fractal Image Segmentation", Proc. ICSPAT, Orlando, Florida, November 1-4, 1999.

C. M. Akujuobi, "Implementation of Wavelet-Based Solutions to Signal Processing Applications", Proc. DSP World & ICSPAT, Toronto, Canada, September 13-16, 1998.

C. M. Akujuobi and M. K. Kwong, "Analysis of Wavelet Image Compression Using Nonorthogonal and Orthogonally Compensated W-Transforms," Proc. IEEE Southeastcon '96, Tampa, Florida, April 11-14, 1996, p. 297-300.

C. M. Akujuobi, "The Effects of Different Wavelets on Image Reconstruction," Proc. IEEE Southeastcon '96, Tampa, Florida, April 11-14, 1996, p. 293-296.

B. Samuels, Jr. and **C. M. Akujuobi**, "Development and Analysis of a 3D Decomposition Algorithm Using the W-Transform, Proc. Sixth Annual Argonne Symposium for Undergraduates in Science, Engineering and Mathematics, Argonne, Illinois, Nov. 3-4, 1995.

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C. M. Akujuobi, V. Parikh and A. Z. Baraniecki, "Performance Evaluation of Multiresolution Image Analysis Using Wavelet Transform," Proc. of International Association of Science and Technology Development (IASTED), Pittsburgh, Pennsylvania, May 10-12, 1993.

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C. M. Akujuobi and A. Z. Baraniecki, "Wavelets and Fractals: A Comparative Study," IEEE SSAP '92 Proceedings, Victoria, B.C., Canada, October 7-9, 1992.

C. M. Akujuobi and A. Z. Baraniecki, "Wavelets and Fractals: An Overview of their Similarities Based on Application Areas," IEEE SSP '92 Proceedings, Seattle, Washington, October 4-6, 1992.

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C. M. Akujuobi and M. Chouika, "Estimation of Large Set of Parameters: A Fuzzy Logic-Based Approach," Proc. Modeling and Simulation, Vol. 21, May 1990.

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Chris Stewart, Brooks Angelita, Melissa Taylor, "DSP Applications in Smart Material Control", 3rd Annual Texas A&M University System Pathways to Doctorate Research Symposium, Texas A&M University-Kingsville, Nov 4 - 5, 2005. (**Advisor: Dr. Yongpeng Zhang, & Dr. Akujuobi**).

Rongbo Wu and **Cajetan M. Akujuobi**, "Chip-to-Chip Communication System", CECSTR Technical Report, August 31, 2004.

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C. M. Akujuobi & J. Lian, “Wavelet-Based Algorithm Development Research into the Detection, Discrimination and Parameter Estimation of Signals for AMRTD System at Prairie View A&M University”, Final Project Report to Northrop Grumman, CECSTR-PVAMU, August 25, 2002.

C. M. Akujuobi, “Analog Mixed Signal And DSP Programs”, Progress Report Submitted to Texas Instruments, Sept. 1, 2001 – August. 31, 2002.

C. M. Akujuobi, “Broadband Access Technologies Laboratory and Center Development for Research & Instruction at Prairie View A&M University, *On the Occasion of Agilent Inc. Equipment Proposal Report*”, PVAMU, May 23, 2002.

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C. M. Akujuobi , “Design and Evaluation of a Non Reference Diagnostic Equipment (NRDE) Burst Monitoring System,” INTELSAT Corporation, August 1993.

C. M. Akujuobi , “Evaluation and Analysis of a Common Handset for the 5000 Series Cordless Telephones,” Consumer Products/ AT&T Bell Labs, Internal Memorandum, August 1990.

C. M. Akujuobi , “Development of an Automatic Range Simulation System for Cordless Telephones,” Consumer Products/AT&T Bell Laboratories, Internal Memorandum, August 1989.

C. M. Akujuobi , “State Transitions and Action Routines for a Telephone-Based Speaker Verification Demonstration System,” AT&T Consumer Laboratories, Internal Memorandum, August 1988.

C. M. Akujuobi , “Overview of SPICE and SIG in a SIMNET Environment,” NASA, Langley, Internal Report, August 1987.

C. M. Akujuobi, “Utilization of SIG as a Tool for Filter Design,” NASA, Langley, Internal Report, August 1987.

C. M. Akujuobi, “Development of a Computer Signal Generation Capability for the Masscomp MC-500 Real-Time UNIX Computer Interfaced to DSP 32 Single Board Development Station,” AT&T Bell Laboratories, Internal Memorandum, August 1986.

Cajetan M. Akujuobi, M.B.A., Ph.D.E.E.

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Invited Seminars/Workshops/Training/Professional Technical Meetings Attended

Attended workshops organized by National Instruments in Austin, Texas,

August 7-10, 2006.

Invited panelist NSF Graduate Research Fellowship Program (GREP)

February 10-12, 2006

Invited panelist NSF Graduate Research Fellowship Program (GREP)

February 11-13, 2005

Invited Visiting Professor, Federal University of Technology, Owerri, Nigeria	Dec. 1, 2004 – Jan. 15, 2005
GWEC Regional Wireless Seminars, Bellevue, Washington State,	November 9-11, 2004
TI Mixed Signal & DSP VLC-LT Training, CECSTR, PVAMU Campus,	October 8, 15, & 29, 2004
FEMLAB Multiphysics Modeling Seminar, at Texas A & M University, College Station,	October 19, 2004
ASEE Annual Conference, Salt Lake, Utah	June 20-23, 2004
Spirient Workshop on Testing Network Security, Houston, Texas,	June 15, 2004
Spirient Workshop on FutureOP IP, Dallas, Texas,	June 8, 2004
TI Technical Meetings with TI PRO & Executive Sponsor,	June 7 & 8, 2004
HAI Technical Research Meetings/Presentations, CECSTR-PVAMU,	June 2, 2004
NSF Workshop at Texas A & M University, College Station,	April 20, 2004
Graduate Students Recruitment & Presentation at Alabama A&M and Tuskegee Universities,	April 12-13, 2004
Graduate Students Recruitment & Presentation at Lamar & Southern Universities,	March 31-April 1, 2004
NASA Dryden, Research Presentation, & Business Meeting, Edwards, California,	March 4-6, 2004
ASEE Engineering Research Council Workshop, Washington, DC.,	February 28-March 1, 2004
TI Developers Conference, Houston, Texas,	February 18-20, 2004
Spirient Workshop on FutureOP IP, Dallas, Texas,	June 8, 2004
Business & Technical Meeting with Sprint Executives, Kansas City, Kansas,	December 3-4, 2003
Pathways Research Symposium at Texas A&M- Galveston,	November 14 & 15, 2003
MSI Research Clusters Conference, Baton Rouge, Louisiana,	October 22-25, 2003
ABET College of Engineering Workshop, PVAMU Northwest Campus	August 18, 2003
Joint LLNL/SEA Homeland Security Project Meeting, Lawrence Livermore, California,	August 7, 2003
ASEE Annual Conference, Nashville, Tennessee	June 22-25, 2003
ASEE/WFEO International Colloquium, Nashville, Tennessee	June 20-22, 2003
SEASBC/HBCU Conference, Memphis, Tennessee	June 17-18, 2003
Joint LLNL/SEA Homeland Security Project Meeting, Jackson, Mississippi	June 13, 2003
International Signal Processing Conference (ISPC), Dallas	March 31-April 3, 2003
FAMIS University-Wide Training, PVAMU Campus	March 17 & 18, 2003
IASTED International Conference, Palm Springs, California	February 24-26, 2003
ASEE Engineering Research Council Workshop, Arlington, Virginia	February 23-25, 2003
Northrop Grumman, Los Almos National Lab Project Technical Meeting, Baltimore, MD	February 24, 2003
QEM/MSE Network National Conference Meetings, Workshops, Washington, D.C.	February 14-15, 2003
Research Presentation to Texas A&M System Chancellor, PVAMU	February 6, 2003
QEM/MSE Network National Conference Meetings, Workshops, Washington, D.C.	February 21-24, 2002
IASTED International Conference, St. Thomas, US Virgin Islands	November 18-20, 2002
Northrop Grumman, Los Almos National Lab Project Technical Meeting, PVAMU	June 14, 2002
QEM/MSE Meetings, Workshops, Houston, Texas	March 23-24, 2001
Texas Instruments Mixed Signal, DSP-Based Meetings at Southern University, Baton Rouge, LA	March 23, 2001
National Instruments LabView Hands-on Workshop for Mixed Signal Measurement and Testing	February 28, 2001
Analog & Mixed Systems Design & Testing Workshop/Short Course	November 13-17, 2000
SPRINT, INC., Strategic and Proposal Award Meeting & Presentation, Kansas City	November 1, 2000
ICSPAT-International Conference on Signal Proc. Applications & Technology, Dallas, Texas	Oct. 16-19, 2000
NSREC Conference, Reno, Nevada	July 24-28, 2000
DSP Fest Conference, Houston, Texas	August 02-04, 2000
Lockheed Martin Information Systems Group, Fort Worth, Texas	April 16-17, 2000
Invited Speaker at the Mixed Signal-Based Meeting and Workshop at Univ. of Puerto Rico, Mayaguez Campus, Mayaguez, Puerto Rico	April 24 – 27, 2000
Project Management Workshop Course, PVAMU	April 5, 2000
Texas A&M University, College Station, Texas	March 24, 2000
IEDM - International Electron Devices Conference/Short course, Washington, DC.	December 4-9, 1999
CECOM Proposal Meeting, Washington, DC.	December 1-2, 1999
ICSPAT-International Conference on Signal Proc. Applications & Technology, Orlando, Florida	Nov. 1-4, 1999

Cajetan M. Akujuobi, M.B.A., Ph.D.E.E.

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Technical Presentations Made To Professional Organizations

NSREC Conference, Norfolk, Virginia	July 10-13, 1999
Assistive Technology Issues Meeting, Ruston, Texas	April 8-9, 1999

Research & Proposal Meetings, Texas Instruments, Dallas	March 18, 1999
NASA Ames Research Center, HBCU Proposal Meeting, San Jose, California	March 8-10, 1999
Capacity Building Workshop, Dallas, Texas	February 24-26, 1999
Communications Lab Training with Tellabs, Bolingbrook, Illinois	December 13-17, 1999
IEDM - International Electron Devices Conference/Short course, San Francisco, CA.	December 6-9, 1998
IEEE Standards Industrial Advisory Members & Board of Governors Meetings, NY, NY.	December 2-6, 1998
DSP World & ICSPAT, Toronto, Canada.	September 13-16, 1998
ADSL FORUM International Conference, Montreal, Canada.	June 15-21, 1998
T1E1.4 Technical Standards Working Group Meeting on xDSL, Huntsville, AL.	May 31-June 5, 1998
ANSI T1E1.4 Technical Standards Working Group Meeting on xDSL, Austin, Texas	March 2-6, 1998
Business Negotiations with Partners - xDSL Application Codes, Testing & Evaluation; Belfast - Northern Ireland; Bradford, Aberdeen - United Kingdom,	February 21-28, 1998
Technology Hard Copy Fact Finding Meeting and Negotiations, Los Angeles & El Segundo, CA	January 28, 1998
ANSI T1E1.4 Technical Standards Working Group Meeting on xDSL, Sacramento, CA.	December 8-12, 1997
GLOBECOM '97 Conference, Phoenix, Arizona	November 3-8, 1997
Technology Hard Copy Fact Finding Meeting and Negotiations Rochester, New York	October 28-29, 1997
Smart Cards Network Application Meetings and Negotiations with Litronic, Inc.;; Costa Mesa, California	August 29-31, 1996
RSA Workshop on Cryptography, Menlo Park, California	August 14-17, 1996
RSA Laboratories on PKCS #11/Cryptoki Workshop, Boston, Massachusetts	July 8-11, 1996
IEEE Southeastcon'96 Conference, Tampa, Florida	April 11-14, 1996
NSF Engineering Ethics and Professionalism workshop, College Station, Texas	August 14-18, 1995
IEEE Southeastcon'95, Conference, Raleigh, North Carolina	March 26-29, 1995
International Conference on Modeling and Simulation, Pittsburgh, Pennsylvania	May 10 - 12, 1993
Sixth SSAP Workshop on Statistical Signal & Array Processing, Victoria, British Columbia, Canada Cajetan M. Akujuobi, Ph.D.	October 7 - 9, 1992 Page 25

Technical Presentations Made To Professional Organizations Continued

International Symposium on Time-Frequency and Time-Scale Analysis, Victoria, British Columbia, Canada	October 4 - 6, 1992
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AFCOM'92 - African Communications Conference, Westin Hotel, Washington, D.C.	March 30 - April 1, 1992
Modeling and Simulation Conference, Pittsburgh, Pennsylvania	May 1990
OUCS 89 FUZZY LOGIC Conference, Athens, Ohio	October 1989
Modeling and Simulation Conference	May, 1987
National Congress on Engineering Education Conference, Washington, DC.	November 1986
Instrument Society of America Conference, Houston, TX.	October 1986
American Society for Engineering Education Conference, Cincinnati, Ohio	July 1986
Modeling and Simulation Conference, Pittsburgh, Pennsylvania	April 1986
IEEE Southeast Conference, Richmond, Virginia	March 1986
Modeling and Simulation Conference, Pittsburgh, Pennsylvania	April 1984
“ADC Automated Testing, Development and Implementation Using Lab View Software”, Paper No. 2004-1320, ASEE Proceedings 2004, Salk Lake City, Utah, June 20-23, 2004.	
“ADC Automated Testing Using LabView Software”, TAMUS Pathways Research Symposium, Galveston, Texas, Nov. 14-15, 2003.	
“Application of Artificial Intelligence Principles to Remote Data Mining Problems”, TAMUS Pathways Research Symposium, Galveston, Texas, Nov. 14-15, 2003.	
“Development of Test Automation for ADSL Interoperability and Reliability Tests”, TAMUS Pathways Research Symposium, Galveston, Texas, Nov. 14-15, 2003.	
“Wavelet-Based Algorithm for Vibration Detection in an Aeroelastic System”, TAMUS Pathways Research Symposium, Galveston, Texas, Nov. 14-15, 2003.	
“Dynamic Spectrum Management”, TAMUS Pathways Research Symposium, Galveston, Texas, Nov. 14-15, 2003.	
“The Center of Excellence for Communication Systems Technology Research (CECSTR)”, Faculty and Professional Staff Conference, PVAMU, August 20, 2003.	
“On the Development and Teaching of a Broadband Communication-Based Curriculum at Prairie View A&M University”, Proc. ASEE Conference, Nashville, TN, June 22-25, 2003.	
“On the Development, Simulation and Testing of a Mixed-Signal Flash ADC with Application to a Digital Voltmeter”, Proc. ASEE Conference, Nashville, TN, June 22-25, 2003.	
“Ph.D. & M.S. Programs at PVAMU”, Presented at Lamar University, April 24, 2003.	

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Technical Presentations Made To Professional Organizations Continued

“A Baseline Test for the Ability to Support Up to Eight Derived lines on the IADs for VoDSL, Proceedings GSPX-ISPC, Dallas, March 31 – April 3, 2003.

“Test - Point Selection Method for Mixed Signal Systems Using Discrete Wavelet Transform”, Proceedings GSPX-ISPC, Dallas, March 31 – April 3, 2003.

“Implementation of the Wavelet Transform-Based Techniques for Static Testing of Mixed Signal Systems”, Proc. IASTED international Conf., Modeling and Simulation, Palm Springs, California, USA, pg.56-59, February 24-26, 2003.

“On the Development and Teaching of a Broadband Communication-Based Curriculum at Prairie View A&M University”, Presented at the QEM/MSE Conf., Washington, D.C., February 14-15, 2003.

“High-Speed (Broadband) Communication, Analog Mixed Signal and DSP Solutions Programs at PVAMU”, Presented to Texas Higher Education Ph.D. Site Visit, PVAMU, Texas, December 17, 2002.

“A Novel Parametric Test Method for Communication Systems Mixed-Signal Circuits Using Discrete Wavelet Transform”, Proc. IASTED international Conf., Communications, Internet, and Information Technology, St. Thomas, US Virgin Islands, pg.132-135, Nov. 18-20, 2002.

“Wavelet Signal Processing for the Advanced Microwave Receiver Technology Development (AMRTD) Project at Prairie View A&M University”, Presented to Prof. Jude E. Njoku, Chancellor, FUTO, at PVAMU, Sept. 10, 2002.

“Wavelet Signal Processing for the Advanced Microwave Receiver Technology Development (AMRTD) Project at Prairie View A&M University”, Presented to Scott Briles of Los Alamos National Lab, PVAMU, August 14, 2002.

Broadband Access Technologies Laboratory and Center Development for Research & Instruction at Prairie View A&M University, Key Proposal Areas Report, *On the Occasion of Ribbon Cutting*, Presented at PVAMU, May 15, 2002

“Quantitative Performance Image Analysis Using Different Wavelet Filter Taps.” Proc. ICSPAT, Dallas, Texas, October 12-16, 2000.

“On the Novel Development of a Hybrid-Based Wavelet and Fractal Image Segmentation”, Proc. ICSPAT, Orlando, Florida, November 1-4, 1999.

“Implementation of Wavelet-Based Solutions to Signal Processing Applications”, Proc. DSP World & ICSPAT, Toronto, Canada, September 13-16, 1998.

“TASS Requirements at Algorithm Level Based on Different Standards for ADSL, HDSL, and Cable Modem”, Advanced Hardware Architectures, Inc., 1997.

“The Effects of Different Wavelets on Image Reconstruction,” Schlumberger Austin Product Center, Austin, Texas, April 18, 1996; IEEE Southeastcon '96, Tampa, Florida, April 12, 1996.

“Analysis of Wavelet Image Compression Using Nonorthogonal and Orthogonally Compensated W-Transforms,” IEEE Southeastcon '96, Tampa, Florida, April 12, 1996.

“Performance Evaluation of Multiresolution Image Analysis Using Wavelet Transform,” International Association of Science and Technology Development (IASTED), Pittsburgh, Pennsylvania, May 10-12, 1993; Argonne National Laboratory, December 20, 1994.

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Technical Presentations Made To Professional Organizations Continued

“Comparison of Efficiency of Time and Frequency Domain Implementation of Discrete Wavelet Transform,” IASTED, Pittsburgh, Pennsylvania, May 10-12, 1993.

“Wavelets and Fractals: A Comparative Study,” IEEE SSAP '92, Victoria, B.C., Canada, October 7-9, 1992.

“Wavelets and Fractals: An Overview of Their Similarities Based on Application Areas,” IEEE SSP ‘92, Seattle, Washington, October 4-6, 1992.

“Evaluation and Analysis of a Common Handset for the 5000 Series Cordless Telephones,” New Technologies Development Group/Consumer Products Laboratories, AT&T Bell Laboratories, Holmdel, New Jersey, August 1990.

“Estimation of Large Set of Parameters: A Fuzzy Logic-Based Approach,” Modeling and Simulation Conference, Pittsburgh, Pennsylvania, May 1990.

“Development of an Automatic Range Simulation System for Cordless Telephone,” New Technologies Development Group/Consumer Products Laboratories, AT&T Bell Laboratories, Holmdel, New Jersey, August 1989, Norfolk State University IEEE Chapter, October 1989.

“Circuit Analysis Using SPICE,” NASA and SIMNET Summer Institute at the NASA Langley Research Center, July 1987.

“Utilization of SIG as a Tool for Filter Design,” NASA and SIMNET Summer Institute at the NASA Langley Research Center, July 1987.

“Maximum Overshoot Approximation of a System: A Miniatic Modeling and Simulation Technique,” Modeling and Simulation Conference, Pittsburgh, Pennsylvania, April 1987.

“Computer Aided Analog-to Digital Converter Selection,” Instrument Society of America Conference, Houston, Texas, October 1986.

“Development of a Computer Based Signal Generation Capability for the Masscomp MC-500 Real-Time UNIX Computer System, Interfaced to DSP 32 Single Board Development Station,” Service Assurance Systems Technology Development Group, AT&T Bell Laboratories, Red Hill, New Jersey, August 1986.

“The Effects of Gaussian Noise on PCM Systems: A Modeling and Simulation Technique,” Modeling and Simulation Conference, Pittsburgh, Pennsylvania, April 1986.

“A Modeling and Simulation Technique for Improving the Quality of PCM System Output Signals,” IEEE Southeast Conference, Richmond, Virginia, March 1986.

“A Survey of the Impact of Personal Computers in Electrical Engineering Programs in American Universities,” Business Research Group, Hampton University, Norfolk, Virginia, October 1985.

“The Effects of Uniformly Distributed Random Noise on PCM Systems,” Physics and Engineering Club, Norfolk State University, Norfolk, Virginia, October 1985.

“Analog-to-Digital Converter Selection: Cost and Performance Criteria in Systems,” Modeling and Simulation Conference, Pittsburgh, Pennsylvania, April 1984.

Cajetan M. Akujuobi, M.B.A., Ph.D.E.E.

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THESIS, DISSERTATION AND MASTERS PROJECT COMMITTEES

- **Ph.D Committee Member (Chair):** “Wavelet-Based Signal Analysis of Network Communication Systems”, Segun, May 2007.
- **Ph.D. Committee Member (Chair):** “Wavelet-Based Algorithm Development for Vibration Detection for the 100ft Pathfinder Plus Wing Using FemLab MultiPhysics Approach”, Cary Smith, Aug. 2007.

- **Ph.D Committee Member (Chair):** “Intrusion Detection and Prevention for Broadband Network Systems”, Nana K. Ampah, December 2007.
- **M.Sc. Committee Member (Chair):** “Wavelet-Based Development and Implementation of Mixed-Signal Systems Automation Testing Using LabView”, Michael Springs, December 2006.
- **M.Sc. Committee Member (Co-Chair) Federal University of Technology Owerri, Imo State, Nigeria:** “The Wavelet Transform Analysis of Broadband Communication Signal Processing for Home Network Power Line,” Onwuchekwa Nkwachukwu, May 2006.
- **Ph.D. Committee Member University of Houston:** “*Digital PID Controller Design for Delayed Multivariable Analog Systems*”, Warsame Ali, October 2004.
- **M.Sc. Committee Member (Chair):** “Dynamic Spectrum Management for DSL Systems”, Jie Shen, August 2004.
- **M.Sc. Committee Member (Chair):** “Development of Test Automation for ADSL Interoperability and Reliable Tests”, Shumon Alam, May 2004.
- **M.Sc. Committee Member (Chair):** “ADC Automated Testing Using LabView Software”, Ben Franklin, May 2004.
- **M.Sc. Committee Member (Chair):** “Wavelet-Based Algorithm Development for Vibration Detection in an Aeroelastic System”, Cary Smith, May 2004.
- **M.Sc. Committee Member (Chair):** “ADC Automated Testing Using MATLAB”, Emad Mohammed, May 2004.
- **M.Sc. Committee Member (Chair):** “Wavelet-Based Algorithm Development for the Detection and Estimation of the Miniaturized Satellite Threat Reporting System (MSTRS) Using Bayes Theorem”, Jaymars Davis, August 2003.
- **M.Sc. Committee Member (Co-Chair):** “Total Dose Evaluation of Commercial-Off-The-Shelf Data Converter Integrated Circuits”, Dan Sims, August 2003.
- **M.Sc. Committee Member (Chair):** “Developing and Testing Test Programs for High-Speed Operational Amplifiers”, Rion Marshall, May 2002.
- **M.Sc. Committee Member (Chair):** “A LABVIEW Implementation of A Wavelet-Based ADC and DAC Testing”, Khalid Ferdous, Spring 2002.
- **M.Sc. Committee Member (Chair):** “Wavelet-Based Algorithms Development for Mixed Signal Systems Testing”, Lan Hu, Fall 2002.

THESIS, DISSERTATION AND MASTERS PROJECT COMMITTEES CONTINUED

- **M.Sc. Committee Member:** “Radiation Effects on Full Bridge Zero-Voltage Switching DC-DC Converters”, M. S. Thesis, MD. Abdul Mazid, May 2000.
- **M.Sc. Committee Member:** “Bone Conduction Communication Systems: Study, Design, Development & Prototype Construction”, M. S. Thesis, Gerardo Novelo, May 1999.

- **M.Sc. Committee Member:** “Development of Pressure Controlled System for Intelligent Resin Transfer Mold”, M. S. Thesis, Aigbe Joel Enabulele, May 1999.

FUNDED RESEARCH PROPOSALS, GRANTS AND CONTRACTS OBTAINED

- **Dr. Akujuobi (PI)**, PVAMU Team of the SAIC Team. Part of 8 large businesses and 5 small businesses that were Awarded the Army ITES-2 Contract for \$20 billion. CECSTR Under the Leadership of Dr. Akujuobi, will provide support to the SAIC Team in the areas of Information Security, Information Technology Services-Engineering Life Cycles, Strategic Enterprise IT Policy and Planning and Systems Operation and Maintenance. Award was Announced in **June 2006**.

FUNDED RESEARCH PROPOSALS, GRANTS AND CONTRACTS OBTAINED CONTINUED

PIs/Co- PIs	Amt. of Award	Begin Date	End Date	Title of Grant/Contract	Sponsor
Dr. Akujuobi (PI) Dr. Zhang (Co-PI)	\$500,000.00	October 2006	September 2009	Research and Education in Robust PAM / PWM Digital Controller Design".	US Army
Dr. Attia (PI) Dr. Akujuobi (Co-PI), Dr. Sadiku, (Co-PI), Dr. Quin, (Co-PI).	\$1,000,000.00	September 2005	August 2008	Mixed-Signals Systems for High-Speed Networks, HBCU RISE	NSF
Dr. Akujuobi (PI)	\$90,000.00	Sept. 2006	Aug. 2007	Texas Instruments Program at PVAMU	Texas Instruments
Dr. Akujuobi (PI)	\$85,000.00	Sept. 2005	Aug. 2006	Texas Instruments Program at PVAMU	Texas Instruments
Dr. Akujuobi (PI)	\$20,000.00	Nov. 2005	Dec. 2006	Wavelet-Based Algorithm Development for Vibration Detection for the 100ft Pathfinder Plus Wing Using FemLab MultiPhysics Approach	NASA Dryden
Dr. Akujuobi (PI)	\$90,000.00	Sept. 2004	Aug. 2005	Texas Instruments Program at PVAMU	Texas Instruments
Dr. Akujuobi (PI)	\$66,000.00/Contract Period.	October 2003	Jan. 2004	Interoperability and Reliability Tests, Sprint Program at PVAMU. (Contract – Final Negotiation Completed).	Sprint
Dr. Akujuobi (PI)	\$100,000.00	Sept. 2003	Aug. 2004	Texas Instruments Program at PVAMU	Texas Instruments
Dr. Akujuobi (PI)	\$100,000.00	Sept. 2002	Aug. 2003	Texas Instruments Program at PVAMU	Texas Instruments
Dr. Akujuobi (PI)	\$15,000.00	Nov. 2002	Dec. 2003	Exploratory Algorithm Development Study of a Wavelet-Based Adaptive Smart Scheme for Vibration Detection of an Aerodynamic System.	NASA Dryden
Dr. Akujuobi (PI)	\$356,368.00	Aug. 1999	Aug. 2002	The Establishment of an Analog Mixed Signal-Based Curriculum with Emphasis in Design and Testing Techniques at Prairie View A&M University". Texas Instruments, Inc.	Texas Instruments
Dr. Akujuobi (PI)	\$2,430,000.00 (\$1,630,000.00 from TI & \$800,000.00 Matching from PVAMU)	Aug. 2000	Aug 2002	The Establishment of DSP Solutions and Analog-Based Curriculum with Emphasis in Design and Testing at Prairie View A&M University", Texas Instruments, Inc.	Texas Instruments
Dr. Akujuobi (PI)	\$72,000.00	Aug.2000	Aug 2002	Graduate Research Assistantship Additional Support Request Proposal	Texas Instruments
Dr. Wilkins (PI), Dr. Fogarty (Co-PI), Dr. Kirby (Co-PI), Dr. Attia (Co-PI), Dr. Akujuobi (Co- Investigator)	\$5,000,000.00	Aug. 2000	Aug. 2005	Study of the Radiation and Mitigation Effects on Space-Based DSPs and Mixed Signal Systems. <i>(A Part of my contribution to the CARR NASA Proposal, February 2000 in which I am a Co-Investigator).</i>	NASA.
Dr. Akujuobi (PI)	\$600,000.00.	Jan. 2001	Dec. 2002	High Speed Communication Systems (Broadband) Laboratory and Center Development for Research & Instruction at Prairie View A&M University – <i>A Part of the Envisioned Center of Excellence for Communication Systems Technology Research.</i>	Sprint, Inc
Dr. Akujuobi (PI) Dr. Lian (Co-PI)	\$133,254.00	Sept. 2001	Aug. 2002	Wavelet-Based Algorithm Development Research into the Detection, Discrimination and Parameter Estimation of Signals for MSTRS System at Prairie View A&M University	Litton Adv. Space Systems/ Northrop Grumman
Dr. Fuller (PI), Dr. Akujuobi (Co-PI), Prof. Ali (Co-PI).	\$31,848.00	Dec. 2000	June 2001	In Developing a Test Station Utilization Matrix	Lockheed Martin Information Systems

ESTIMATED AND PENDING RESEARCH PROPOSALS SUBMITTED FOR FUTURE FUNDING

PI & Co- PIs	Title of Grant/Contract	Dates	Sponsor	Amt. of Award
Dr. Cui (PI) Dr. Wang (Co-PI) Dr. Akujuobi (Co-PI)	The Research of Redundant Discrete Wavelet Transform in Image Registration and Remote Sensing.	2006-2009	National Geospatial-Intelligence Agency, 2006.	\$200,000.00
Dr. Akujuobi (PI) Dr. Rajaravivarma (Co-PI)	Experimental Design of a Low Power High-Speed Transceiver Chip-to-Chip Mixed Signal Communication System	Jan. 2006 to Jan 2008	NSF CCLI, Phase I	\$200,000.00
Dr. Yongpeng (PI), Dr. Akujuobi (Co-PI)	DSP-Based Senior Projects Design for Undergraduate Students	Jan. 2006 to Jan 2008	NSF CCLI, Phase I	\$200,000.00
Dr. Attia (PI), Dr. Akujuobi (Co-PI) , Dr. Lijun Qian (Co-PI), Dr. Sadiku (Co-PI).	Modeling, Testing and Design of Advanced Mixed Signal Systems	Jan. 2005 to Dec. 2008	NSF -RISE	\$1,000,000.00
Dr. Attia (PI), Dr. Akujuobi (Co-PI) , Dr. Varman (Co-PI), Dr. Sadiku (Co-PI).	Center for Secure and Robust Networks (CRSNET).	Aug. 2004 to Sept. 2009	NSF -CREST	\$5,000,000.00
Dr. Akujuobi (PI) , Dr. Sadiku (Co-PI), Mr. Warsame Ali (Co-PI).	A Dual-Rate State-Space Self-Tuning Control and Filtering for Nonlinear Stochastic Uncertain GPS	06/01/04 to 05/31/07	Army	\$727,608
Dr. Akujuobi (PI) , Mr. Warsame Ali (Co-PI).	Design of PAM and PWM Digital Controllers for Cascaded Analog Systems	06/01/04 to 05/31/07	Army	\$679,045
Dr. Tolliver (PI), Dr. Akujuobi (Co-PI), Mr. Warsame Ali (Co-PI).	Linear Digital Redesign on Nonlinear Continuous-Time Controller for Nonlinear Systems	06/01/04 to 05/31/07	Army	\$712,229
Dr. Akujuobi (PI) , Dr. Lian (Co-PI)	Wavelet-Based Algorithm Development Research into the Detection, Discrimination and Parameter Estimation of Signals for MSTRS System at Prairie View A&M University.	Jan. 2004 to Dec. 2007	Northrop Grumman	\$494,030.00*
Dr. Akujuobi (PI) , Dr. Sadiku (Co-I)	A Novel Network Management Reliability and Disaster Recovery with Applications to Homeland Security Networks.	Sept. 2003 to Sept. 2006	NSF	\$499,900.00.
Dr. Akujuobi (PI) , Dr. Sadiku (Co-PI)	A New Revolutionized Disaster Recovery and Network Management Reliability Expert System with Greater Applications to Homeland Security Networks.	Sept. 2003 to Sept. 2006	NSF	\$3,999,737.00.
Dr. Akujuobi (PI)	Annual Renewal of the TI Grant.	Aug. 2004 to Aug. 2005	Texas Instruments	\$100,000.00*
Dr. Akujuobi (PI)	Annual Renewal of the TI Grant for at least five years @ \$100,000.00 per year.	Aug. 2005 to Aug. 2010	Texas Instruments	\$500,000.00**
Dr. Akujuobi (PI)	Renewal of the Interoperability Testing of DSL Modems for at least \$100,000.00 per year for five years.	Aug. 2005 to Aug. 2010	Sprint	\$500,000.00**
Dr. Akujuobi (PI)	Annual Registration to Standard Organizations, etc.	Jan. 2004 to Dec. 2005	Raytheon	\$15,000.00*

- *Proposals Already Submitted with Good Prospects of Being Funded.
- **Estimated Potential Funding from Sponsors

UNFUNDED PROPOSAL WRITTEN AND SUBMITTED

- “Research Study of A Wavelet Transform-Based Testing Technique of ADCs at Prairie View A&M University”, Texas Instruments & TI Data Converter Group.
Principal Investigator: Dr. Cajetan M. Akujuobi.
Amount Requested: \$160,785.00. Date: August 2000.
- “Study of Radiation and Mitigation effects on Space-Based DSPs and Mixed Signal Systems”.
Co-Principal Investigator: Dr. Cajetan M. Akujuobi.
Submitted to: NASA, 2001.
Amount Requested: \$895,231.00. Date: 2001.
- “Radiation Effects on Communication Systems”.
Principal Investigator: Dr. Cajetan M. Akujuobi
Submitted to: NASA, 2000.
Amount Requested: \$297,808.00. Date: 2001
- “Exploration Study for the Development of an xDSL-Based Analog Front End (UAFE) Applied to Communication Systems”. **Submitted To:** NSF.
Principal Investigator: Dr. Cajetan M. Akujuobi
Amount Requested: \$297,808.00. Date: 1999.
- **Title:** Broadband Access Technologies Laboratory: A Part of the Center of Excellence for Communication Systems Technology Research (CECSTR).
Submitted to: Sprint, July 2002
Amount Requested: \$2,077,248.00
- **Title:** Development of a Wavelet Based Adaptive Smart Scheme for Vibration Detection on an Aerodynamic System.
Submitted to: NASA Dryden, March 2002.
Amount Requested: \$300,000.00 for three years.
- **Title:** Modeling and Simulation of Imaging Processing and Algorithm Development.
Submitted to: AFRL, March 2002 (Collaborative Work – Akujuobi & Attia)
Amount Requested: \$50,000.00
- **Title:** Development of a Wavelet-Based Adaptive Smart scheme for Vibration Detection on an Aerodynamic System. **Submitted to:** NASA Dryden, March 2001.
Amount Requested: \$300,000.00 for three years.

CONSULTING EXPERIENCE

Begin Date	End Date	Institution	Brief Description of Activity
2004	Present	Federal University of Technology, Owerri, Imo State, Nigeria	Undergraduate and Graduate Curriculum Development, Research, Graduate Thesis and Dissertation Advisement, Development of New Courses, Lecturing, Conducting Workshops and Seminars, etc.
1999	Present	Texas Instruments, Inc., Dallas, Texas	Research and Development Faculty Engineering <i>Consultant</i> for Mixed Signal Systems
1997	Present	Advanced Hardware Architectures, Inc., Pullman, Washington State.	<i>Consultant</i> – Communication & Signal Processing/Image Processing Systems Engineering Related Projects, Representative to E1T1.4, ANSI, ITU & IEEE Standards.
Fall 1983	Fall 1986	Hampton University	<i>Consultant</i> to the \$5 Million grant award for the Kenan Program Cognitive Development Laboratory (CODE) Lab. – (Digital Logic/Systems, Microprocessor).

Graduate Student Supervision

- **Ph.D. Dissertation Supervisor, Dissertation Topic:** “Innovative Queueing Scheduling of a Broadband Network Communication System”, *Richard Gnahoua*, **To Graduate Fall 2009.**
- **Ph.D Dissertation Supervisor, Dissertation Topic:** “Wavelet-Based Signal Analysis of Network Communication Systems”, *Olusegun O. Odejide*, **To Graduate May 2007.**
- **M.Sc. Thesis Supervisor, Thesis Topic:** “Wavelet-Based Mixed Signal Testing”, *Emad Awada*, **To Graduate Fall 2006.**
- **Ph.D. Dissertation Supervisor, Dissertation Topic:** “Wavelet-Based Algorithm Development for Vibration Detection of the 100ft Pathfinder Plus Wing Using FemLab MultiPhysics Approach”, *Cary Smith*, **To Graduate December 2006.**
- **Ph.D Dissertation Supervisor, Dissertation Topic:** “Intrusion Detection and Prevention for Broadband Network Systems”, *Nana K. Ampah*, **To Graduate December 2006.**
- **M.Sc. Thesis Supervisor, Thesis Topic:** “Wavelet-Based Development and Implementation of Mixed-Signal Systems Automation Testing Using LabView”, *Michael Springs*, **To Graduate December 2006.**
- **M.Sc. Thesis Co-Supervisor, Federal University of Technology Owerri, Imo State, Nigeria, Thesis Topic:** “The Wavelet Transform Analysis of Broadband Communication Signal Processing for Home Network Power Line,” *Onwuchekwa Nkwachukwu*, **To Graduate May 2006.**
- **Ph.D. Dissertation Co-Supervisor, University of Houston: Student: Warsame Ali – Dissertation Topic:** “Design and *Digital Implementation of Proportional-Integral Derivative Controller for Nonlinear Motors*”, **Graduated December 2004.**
- **M.Sc. Thesis Supervisor: Student: Jie Shen – Thesis Topic:** “Efficient Multi-User Bit-Loading Algorithm with Fairness Control for Discrete Multitone Systems”, **Graduated August 2004.**
- **M.Sc. Thesis Supervisor: Student: Shumon Alam, Thesis Topic:** “Development and Implementation of Test Automation for ADSL Interoperability and Reliability Studies”, **Graduated August 2004.**
- **M.Sc. Thesis Supervisor: Student: Ben Franklin, Thesis Topic:** “ADC Automated Testing Using LabView Software”, *Ben Franklin*, **Graduated August 2004.**
- **M.Sc. Thesis Supervisor: Student: Cary Smith, Thesis Topic:** “Wavelet-Based Algorithm for Vibration Detection in an Aeroelastic System”, **Graduated August 2004.**
- **M.Sc. Masters Project Supervisor: Student: Collins B. Acheampong, Project Topic:** “A Split-Channel Multicarrier Code Division Multiple Access Architecture”, **Graduated August 2004.**
- **M.Sc. Thesis Supervisor: Student: Jaymars Davis – Thesis Topic:** “Wavelet-Based Algorithm Development for the Detection and Estimation of the Miniaturized Satellite Threat Reporting System (MSTRS) Using Bayes Theorem”, **Graduated August 2003.**
- **M.Sc. Masters Project Co-Supervisor: Student: Dan Sims - Project Topic:** “Total Dose Evaluation of Commercial-Off-The-Shelf Data Converter Integrated Circuits”, **Graduated August 2003**

- **Thesis Supervisor: Student: *James D. Spain* – Thesis Topic:** “The Impact Packaged Device Planarity Has on Insertion Loss in a DMD™ Based Optical Networking System”, **Graduated May 2003.**
- **Thesis Supervisor: Student: *Lan Hu* – Thesis Topic:** “Wavelet-Based Algorithm Development for Mixed Signal Systems Testing”, **Graduated December 2002.**
- **Thesis Supervisor: Student: *Brandee Rogers* – Thesis Topic:** “Wavelet Transform-Based Detection, Discrimination and Parameter Estimation of Radar Signals Using Neyman-Pearson Criterion Theorem”, **Graduated December 2002.**
- **Masters Project Supervisor: Student: *Rion Marshall* – Project Topic:** “Developing and testing test Programs for High-Speed Operational Amplifiers”, **Graduated May 2002.**
- **Masters Supervisor: Student: *Khalid Ferdous* – Project Thesis Topic:** “A LABVIEW Implementation of A Wavelet-Based ADC and DAC Testing”, **Graduated December 2001.**
- **Thesis Supervisor: Student: *Emad Mohammad*, Thesis Topic:** “ADC Automated Testing Using MATLAB”, Work In Progress, **To Graduate May 2005.**
- **Thesis Supervisor: Student: Mostafa T. Ettelet – Work in Progress, Thesis Tentative Topic:** A DSP-Based Image Compression Application Using Wavelet Transform Coefficients.

Most Recent Student Projects Advised and Supervised – Undergraduate Senior and Graduate Courses
Project List –ELEG 5243 Advanced Broadband Communication Systems
(GRADUATE SPRING SEMESTER 2003)

No.	Student Name	Major	Begin Date	End Date	Project Topic
1	Acheampong, Collins	Electrical Engineering	January 2003	May 2003	Wavelength Division Multiplexer (WDM) and the Future of Synchronous Optimal Network Technology (SONET).
2	Alam, Shumon	Electrical Engineering	January 2003	May 2003	MPLS Virtual Private Networks..
3	Ampah, Nana, K	Electrical Engineering	January 2003	May 2003	Reducing the Effects of Hostile Radio Propagation Environments on Broadband Wireless Access Systems Deployed in Residential and Business Environments.
4	Davis, Jaymar	Electrical Engineering	January 2003	May 2003	Design, Development and Implementation of 8-PAM Transceiver.
9	Franklin, Ben	Electrical Engineering	January 2003	May 2003	Test Automation of Broadband ADC Using Lab View
12	Novelo, Roger R.	Electrical Engineering	January 2003	May 2003	On noise Filtering with DMT
14	Smith, Cary	Electrical Engineering	January 2003	May 2003	Implementation of a Cross talk Suppression Method for DMT Based ADSL.
15	Shen, Jie	Electrical Engineering	January 2003	May 2003	Study of Spectrum Management for DSL Systems

Project List –ELEG 4313 Senior Broadband Communication Systems (UNDERGRADUATE SPRING SEMESTER 2003)

No.	Student Name	Major	Begin Date	End Date	Project Topic
1	Ali, Maslah Hassan	Electrical Engineering	August 2002	December 2002	Study of DMT and its Simulation in MATLAB
2	Alli, Olawale O.	Electrical Engineering	August 2002	December 2002	SONET Ring Sizing Problems and Suggested Solutions
3	Anderson, Rahman Y.	Electrical Engineering	August 2002	December 2002	Study of DMT and its Simulation in MATLAB
4	Ayuk, Eric E.	Electrical Engineering	August 2002	December 2002	Research, Development and Implementation of Broadband Telephony Experiments Using Feedback Communication System Modules
5	Barton, Ernest D.	Electrical Engineering	August 2002	December 2002	ADSL and Local Area Networks
6	Callier, Kina A.	Electrical Engineering	August 2002	December 2002	Simulating and Observing Local Looping of a Signal on Copper Wire
7	Deckard, Ahmed R.	Electrical Engineering	August 2002	December 2002	N/A
8	Dixon, Angela R.	Electrical Engineering	August 2002	December 2002	Research Paper on POTS Splitters for Broadband Systems
9	Farquharson, Julian W.	Electrical Engineering	August 2002	December 2002	Research, Development and Implementation of Broadband Telephony Experiments Using Feedback Communication System Modules
10	Hussien, Abdi A.	Electrical Engineering	August 2002	December 2002	Research, Development and Implementation of Broadband Telephony Experiments Using Feedback Communication System Modules
11	Maison, Hendrick F.	Electrical Engineering	August 2002	December 2002	Study of Wavelet-Based Decomposition and Reconstruction Characteristics for Broadband Systems
12	Novelo, Roger R.	Electrical Engineering	August 2002	December 2002	Simulating and Observing Local Looping of a Signal on Copper Wire
13	Reed, Macarthur Jr.	Electrical Engineering	August 2002	December 2002	Investigation of Packet and Circuit Switching Technologies and Their Future Cost Effects
14	Watson, Brandon T.	Electrical Engineering	August 2002	December 2002	Investigation of Packet and Circuit Switching Technologies and Their Future Cost Effects
15	Jie Shen	Electrical Engineering	August 2002	December 2002	Study of DMT and its Simulation in MATLAB

NOTE: 1. No Make-ups. Come early and be prepared. Lateness is unacceptable.

2. Where two people are working on the same project, each person's contribution must be clearly shown

**Project Presentation List –ELEG 4003 Communication Systems Theory
(UNDERGRADUATE FALL SEMESTER 2002)**

Student Name	Major	Begin Date	End Date	Project Topic
Baker, Leonard	Electrical Engineering	August 2001	December 2001	Filter Design for Communication Systems.
Boutte, Alvin J.	Electrical Engineering	August 2001	December 2001	Development of a Wavelet-Based Algorithm for Communication Systems.
Bullock, Kalyn L.	Electrical Engineering	August 2001	December 2001	Design, Modeling and Simulation of DAC for Communication Systems.
Callier, Kina A.	Electrical Engineering	August 2001	December 2001	Pulse Modulated Radar Signal Detection, Estimation and Implementation of an MSTRS Instrument.
Chopp, Tameka D.	Electrical Engineering	August 2001	December 2001	Modeling and Simulation Techniques for Improving the Quality of PCM System Output Signals.
Easton, Eric D.	Electrical Engineering	August 2001	December 2001	Modeling and Simulation Techniques for Improving the Quality of PCM System Output Signals.
Everson, Roger D.	Electrical Engineering	August 2001	December 2001	The Effects of Noise in Amplitude Modulation (AM) Receivers: A Modeling and Simulation Technique.
Francisco, Marissa E.	Electrical Engineering	August 2001	December 2001	Design, Modeling and Simulation of DAC for Communication Systems.
Harrison, Jermaine M.	Electrical Engineering	August 2001	December 2001	Design of Analysis and Synthesis of Wavelet Filter Banks for Telecommunication Applications.
Hays, Jessica S.	Electrical Engineering	August 2001	December 2001	Design of a Wavelet-Based Analysis and Synthesis of a 1D Filter Bank for Communication Design.
Kirby, Paul III	Electrical Engineering	August 2001	December 2001	Filter Design for Communication Systems.
Lackey, Latoya L.	Electrical Engineering	August 2001	December 2001	Design of a Wavelet-Based Analysis and Synthesis of a 1D Filter Bank for Communication Design.
Powell, Ebony J.	Electrical Engineering	August 2001	December 2001	Pulse Modulated Radar Signal Detection, Estimation and Implementation of an MSTRS Instrument.
Robinson, Miosha D.	Electrical Engineering	August 2001	December 2001	The Effects of White Gaussian Noise on FM Receivers.
Watson, Brandon T.	Electrical Engineering	August 2001	December 2001	The Effects of Noise in Amplitude Modulation (AM) Receivers: A Modeling and Simulation Technique.
Wilson, Weldon E.	Electrical Engineering	August 2001	December 2001	The Effects of Noise on FM Receivers.
Woodard, Brandalyn K	Electrical Engineering	August 2001	December 2001	The Effects of White Gaussian Noise on FM Receivers.

OTHER PROFESSIONAL RELATED LEADERSHIP

- Appointed to many Conference Review and Publication Committees by ASEE, IEEE, etc. in 2005-2006.
- Invited to serve as one of the NSF Panelists in Washington, DC from February 9-12, 2006.
- Appointed to the Curriculum Advisory Committee for Electrical Engineering Program at the Polytechnic University of Namibia in Namibia, Southern Africa. **This appointment is for a period of 3 years starting fall 2005.**
- Appointed by Dr. Wright (President PVAMU) to serve on the PVAMU Infrastructure Technology Subcommittee, 2005-2006 academic year.
- One of the organizers and a Session Chair for the MWSCAS2006 Technical Conference in San Juan, Puerto Rico, August 2006.
- Professor & Head, Engineering Technology Department July 1, 2005 - Present
- Director, Center of Excellence for Communication Systems Technology Research (CECSTR) 2001-Present
- Professor, Electrical Engineering, Prairie View A&M University September 2004-Present
- Senior Member Status, IEEE 2003
- Author/Workshop Developer/Speaker DSP World featuring ICSPAT 1998
- Session Chair, Wavelets IEEE Southeastern Conference 1996
- IEEE Counselor, Norfolk State University Branch. 1985-1988, 1993-1996
- ASEE Campus Representative, Norfolk State University 1985 – 1996
- Head Judge/Judge, Engineering Projects, Tidewater Science Fair 1994- 1995
- Session Chair, Modeling & Simulation Conference 1986 – 1990
- Chair, Digital Systems – Selection, Design & Project Management of ISA Computer Technology Society, ISA 1986
- Chair, Electronics Engineering Curriculum Development and Accreditation Committee, Norfolk State University 1984 – 1988
- Developer/Coordinator, Microprocessor Learning Resource Center, Hampton University 1984 – 1985
- Judge/Panelist, Hampton Roads Section of IEEE, Student Paper Contest 1987

Professional Affiliations

- Senior Member, Institute of Electrical and Electronics Engineers (IEEE) September 2003 to Present
- Member, Institute of Electrical and Electronics Engineers (IEEE) 1977 – Aug. 2003
- Member, American Society for Engineering Education (ASEE) 1983 - Present
- Senior Member, Instrument Society of America (ISA) 1985 - Present
- Member, International Society for Optical Engineers (SPIE) - Signal and Image Processing Society 1986 - Present
- Member, Society of Industrial and Applied Mathematics (SIAM) 1989 – Present
- Member, Sigma XI, the Scientific Research Society 1994 – Present
- Member, American Association of University Professors (AAUP) 1994 – Present

Research Interests

- Analog & Mixed Signal Testing and Design Using Wavelets and other Techniques
- Broadband (High Speed) Communication Systems
- Digital Signal Processing
- Signal and Image Compression, Reconstruction, Restoration and Segmentation
- Fractals and Fractal Analysis of Signals and Images
- High-Speed (Broadband) xDSL Communications Systems Research and Applications
- Wavelets and Wavelet Transforms & Analysis
- Multispectral Image Analysis Using Wavelets
- Multiresolution Analysis of Signals and Images
- Wavelets and Image Processing
- Application of Wavelets to Biology and Medicine
- Application of Wavelets and Fractals to 3D images
- Comparative Analysis of Wavelets and Fractals
- Application of Wavelets and Fractals to Environmental Studies & Monitoring
- Communications and Information Processing
- Sensor Research and Applications
- Smart Card Applications and Security Issues

SERVICE

Begin Date	End date	Committee Name	Committee Member or Chair	Dept.	College	University/ National	Major Accomplishments
2005	Present	Engineering Council	Member		Engineering		Representing all of the Engineering Departments
2005	2006	PVAMU Infrastructure Technology Subcommittee	Member			PVAMU	Representing the University in making Decisions that affect the Technology Infrastructure of the Campus
Summer 2005	Fall 2005	Planning Committee New EE Building Ribbon Cutting Ceremony	Member & Chair, Fund Raising		Engineering		Planned the Ceremony Activities and Responsible for Raising Money to Underwrite the Cost
2004	Present	Faculty Search Committee	Chair	Electrical			Recruitment of EE New Faculty
Fall 2004	Present	Post Tenure	Member	Electrical Engineering			Evaluation of Tenured Faculty
2004	Present	EE Engineering Building Committee	Member	Electrical Engineering			Consultation and Advisement on the New EE Building at PVAMU
2003	Present	University Faculty Senate	Member Faculty Senator	Electrical Engineering	Representing College of Engineering	Representing PVAMU	Representing the PVAMU Faculty in making Decisions, and recommending ideas to the University Administration.
Summer 2003	Present	SEA/LLNL/HBCUs Alliance on Homeland Security	Member	Representing Electrical Engineering Department	Representing College of Engineering	Representing PVAMU	Putting Together a Homeland Security Proposal and Identifying Strengths of Each University.
Summer 2003	Present	SEASBC/HBCUs Alliance on Funding Sources, Contracts and Proposals	Member	Representing Electrical Engineering Department	Representing College of Engineering	Representing PVAMU	Collecting Information and Networking with Key Funding Agencies for the University.
June 1, 2003	Present	Ph.D. Admissions & Exams Committee	Member	Electrical			Responsible for Evaluating and Recommending Potential Ph.D. Applicants for Admission & Exams.
Summer 2002	Present	Faculty Search Committee	Member	Electrical			Recruitment of EE New Faculty
Fall 2002	Spring 2003	Faculty Inquiry Committee	Member		Engineering		Recommended to the Dean, College of Engineering after Summarizing the said Inquiry Facts as Best as we can Determine from the Results of our Inquiries Relating to some College of Engineering Faculty.
Spring 2002	Spring 2002	Faculty Performance Evaluations Committee	Chair		Engineering		Recommended Faculty Evaluation Instrument to Dean, College of Engineering
Spring 2002	Spring 2002	Faculty Performance Evaluations Committee	Chair	Electrical			Recommended Faculty Evaluation Instrument to Head, Electrical Engineering (EE)
1999	Present	Electrical Engineering Strategic Planning Committee	Member	Electrical			The Committee Published an 80-Page Strategic Plan Update (1999-2004) for Electrical Engineering Department
1999	Present	Electrical Engineering Committee on Student Retention	Chair	Electrical			Recommendations sent to Head, EE and also presented findings to EE Advisory Board
1999	Present	TI-Based Student Scholarship Committee	Chair	Electrical	Engineering		Awarded Over 30 Scholarships to Deserving Students
2000	Present	SPRINT-Based Student Scholarship Committee	Chair	Electrical	Engineering		Awarded Over 9 Scholarships to Deserving Students

SERVICE CONTINUED

Begin Date	End date	Committee Name	Committee Member or Chair	Dept.	College	University/ National	Major Accomplishments
1998	Present	IEEE Standards Association (IEEE-SA), Industry Advisory Committee	Member	Electrical	Engineering	University, Nation, World-wide.	Advised on Key IEEE-SA Industry Related Standards and Policy Implementations. I was part of the T1E1.4 Working Group that developed the ANSI T1.413 ADSL Standard.
2000	2002	Search Committee for CECSTR Personnels	Chair	Electrical	Engineering		Resulted in three (3) CECSTR Personnels Hired.
Spring 2001	Fall 2001	Search Committee for EE Faculty	Chair	Electrical			Recommended Possible Candidates to Head, EE
2000	2001	PVAMU 2000 Annual College day Program	Representative	Electrical	Engineering	University	Discussed and Explored Admission Issues to Potential High School Students
1999	2000	RADSCOM 2000, CARR Committee	Co-Chair	Electrical	Engineering		Implemented RADSCOM Issues.

Special Service to the Electrical Engineering Department Ph.D. Program

As part of the work I did with Respect to the graduate programs in Electrical Engineering, the under-listed items were completed before the end of Spring Semester 2003.

- Developed an Advertisement for the Ph.D. Program in Electrical Engineering.
- Put together Application Materials for Prospective doctoral students.
- Made PowerPoint Presentations for Advertising the new Ph.D. program in Electrical Engineering.
- Traveled to Lamar University to recruit potentials for the new Ph.D. program.

Service to Society: I have engaged in activities that are profession-related that promotes human welfare, transform society, or produce major advancements in the state-of-the-art. These can be exemplified by the following.

- Through the grants that I have brought to Prairie View A&M University, I have been able to create the following job positions that could help change the lives of people – **Research Associate Position, Research Assistant Position and Administrative Assistant Position.** All these positions are fully paid by my grants to PVAMU.
- I have helped not only promote but to transform the welfare of talented men and women that could not have otherwise been able to finish college due to lack of finance to pay their tuition by offering scholarships to deserving students through scholarship grants that I brought to PVAMU. To date over 60 students have benefited from such activities.
- I have also engaged professionally by helping produce advancements in the state-of-the-art in my profession by attracting funds and developing state-of-the-art research and instructional laboratories in the Electrical Engineering Department at PVAMU in the history of the university. These state-of-the-art laboratories are: **Mixed Signal Research Laboratory, DSP Solutions Research Laboratory and Broadband Access Technologies Research Laboratory.**

SERVICE CONTINUED

SERVICE & EXCELLENCE AWARD:

- Prairie View A&M University, COLLEGE OF ENGINEERING, “EXCELLENCE IN RESEARCH AWARD”, Presented to Dr. Akujuobi, December 10, 2002.

IEEE SENIOR MEMBERSHIP AWARD

- I was elevated to the **grade of Senior Member in the IEEE in September 2003. Only 7% of approximately 382,000 members of IEEE hold this grade which exemplifies professional experience, service to IEEE, professional maturity and significant professional achievements.**

UNIVERSITY LINKAGE ISSUES

- I have represented and continue to represent Prairie View A & M University in area of University Outreach extended to the Federal University of Nigeria, Owerri (FUTO), in Imo State, Nigeria. The work performed while at FUTO included Undergraduate and Graduate Curriculum Development, Research, Graduate Thesis and Dissertation Advisement, Development of New Courses, Lecturing, Conducting Workshops and Seminars, etc.