Curriculum Vitae

Pierre-Richard Cornely, Ph.D.

OFFICE

College of Science and Mathematics
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CURRENT POSITION

Dean, College of Science and Mathematics
Professor of Engineering
Department of Computer Science and Engineering Technology
Valdosta State University

High-Level Summary of Professional & Administrative Qualifications

- Accomplished and visionary leader with over 25 years of experience helping institutions achieve significant organizational impact, sustainable outcomes, and operational excellence.
- University System of Georgia (USG) Executive Leadership Institute (ELI) Scholar – Legacy Statement: "*A person who will impact, transform and change lives by example*"
- Internal recognition for strategic leadership of the Faculty Committee on Student Engagement
- Internal recognition for strategic leadership of the College Advisory Board
- Internal recognition for a record of innovation, relentlessly committed to elevating student success, faculty achievements, and academic distinction.
- Internal recognition for a willingness to implement bold strategies that strengthen enrollment and retention and foster a culture of intellectual rigor and inclusivity.
- Internal recognition for a proven ability to lead organizational changes, transforming challenges into opportunities by cultivating adaptive, forward-thinking environments that embrace Continuous Quality Improvement.
- Student-focused, transformative leader defined by transparency, equity, and a deep commitment to a balanced college and campus culture.
- Strong advocate for professional development, mentoring faculty and staff to build leadership capacity and drive \An engaging communicator and relationship builder with a demonstrated ability to forge meaningful collaborations across academic, corporate, and community landscapes.
- Extensive experience in financial and operational management, with a keen understanding of complex budgeting processes, fundraising, and aligning academic priorities with financial

strategies.

- Demonstrated expertise in data-driven decision-making to optimize academic programs and enhance institutional efficiency.
- A background in applied physics, electrical engineering, and strategic thinking supporting the advancement of institutional excellence in STEM fields and inspiring a thriving academic community.

Summary of Professional Accomplishments

Professional:

- Rebranding the College of Science and Mathematics as the STEM Cluster Hub of Valdosta State University – realigning departmental programs with local/regional and market needs.
- Rebranded the Applied Mathematics and Physics Department as a Data Science Department – with a focus on Computational Mathematics and Physics – and pathways to applied data science in AI/ML, Computer Science, Engineering, and Systems.
- Spearheaded the development of an interdisciplinary Data Science program to expand academic offerings in Business Analytics, Computational Science/Engineering, and Logistics, to provide enhanced career pathways for students.
- Rebranded the Chemistry and Geosciences department to serve niche markets such as: Geospatial Intelligence and Urban Planning, Climate Science, Environmental Sustainability, and Natural Hazards.
- Secured over 2.9M$ in institutional investment in the college, 2004- 2006.
- Secured $1.3M in grant funding for the college, 2024-2026
- Secured $400,000 in funding from local and regional partners, 2023-2026
- Secured $1.4 M in endowment support for the college, 2024-2026
- Spearheaded the development of an Advanced Computation Lab in Nevins Hall – to provide institutional and community access to big data – Artificial Intelligence (AI) inquiry – and skill building for career readiness and workforce development.
- Advocated for and led the implementation of an online, non-thesis Master of Science in Biology with Genomics option to address low enrollments and MS degree completion requirements.
- Developed partnerships with local and regional businesses such as Precursor SPC, CJB Applied Technologies/Industries/Salvus, ArGlass, Georgia Power, Salvus, Premium Peanuts, Corteva, Blue Ops, RedCat, South Georgia Medical Center (SGMC), Walmart Milk Plant, and SAFT, resulting in collaborative applied research projects, workforce training, and student Experiential Learning and career readiness opportunities.
- Developed employee training programs tailored to local companies and governmental agencies.
- Initiated comprehensive analyses of DFW rates in critical gateway courses like Anatomy & Physiology, identifying root causes and developing mitigating solutions.
- Developed a high school research program involving faculty from Physics, Chemistry, and Biology, piloted with the Valdosta Early College Academy (VECA) students, and planned for broader expansion.
- Co-authored three scientific publications, contributing to ongoing scholarly activity – and to a sustained effort for academic engagement
- Lead faculty research collaboration with the University of Alaska, Fairbanks, and Precursor

SPC on developing a 4D real-time ionosphere electric field representation with application to space domain and environmental awareness for the United State Space Force.
- Initiated dual enrollment pathways with Dual Enrollment certificate programs to improve recruitment and enrollment pathways in STEM programs.
- Partnered with the University of Georgia and PCOM to create post-graduate opportunities for VSU students in Pharmacy and Medicine.

Summary of Administrative Accomplishments

Administrative:

- Spearheaded a **Resource Diversification initiative** targeting new funding totaling 4M in three years at VSU
- Directed a **$ 1.5M Capital Renovation Project** for the Shrader Science Building at Eastern Nazarene College.
- Led a **$ 3.0M Capital Renovation Project**, resulting in the complete rebuilding of the Chemistry and Biology laboratories at Eastern Nazarene College.
- Led **systematic review and reflection on the College's mission and vision**, aligning goals with university priorities and regional needs.
- Reorganized the College of Science and Mathematics (COSM), restructuring departments to enhance interdisciplinary collaboration and improve recruitment and enrollment.
- Played a **key role in budget prioritization and reduction planning** (3M$ in cuts) during significant financial constraints, supporting university-wide efforts to navigate fiscal challenges.
- Established a **College Advisory Board with wide representation** from departments, alumni, community partners, military programs, and local businesses.
- **Collaborated with the Center for South Georgia Regional Impact (SGRI)** to support regional initiatives, including innovative projects like assessing road bike-ability across 14 South Georgia counties.

Recent Executive Leadership Highlights (2021–Present)

- Nominated by VSU's President and Vice President of Academic Affairs to the University System of Georgia's Executive Leadership Institute (ELI) Training program.
- University System of Georgia's Executive Leadership Institute (ELI) Scholar
- Established the Initiative for Community Engagement and Applied Research (iCETAR), connecting faculty and students with local industries and government through applied research and innovation partnerships across 41 South Georgia counties
- Cross-Institutional Partnerships – Developed academic and professional pipelines with Coastal Pines Technical College (engineering articulation), Wiregrass Technical College, PCOM, University of Georgia (graduate pathways in medicine and pharmacy), and South Georgia Medical Center.
- Developing a wide faculty morale enhancement and management program – to include Pop-in with the Dean, Dean working the floors in Nevins and Bailey, and an enhanced framework for the Faculty All Hands Meetings

- Active member of the Deans' Council in navigating university-wide budget reductions, contributing to difficult, high-stakes decisions with integrity, transparency, and collaboration.

Research and Other Highlights:

- **Founder of the Earthquake Nowcasting and Forecasting Research Experience for Undergraduate (REU)** program at Eastern Nazarene College, specially designed to include interdisciplinary and systems engineering principles. Working with NASA AMES scientists and a $500,000 NASA Grant, the program provided pathways to REU opportunities for first-generation students at Eastern Nazarene College.
    - **Student Work Samples:**
      James Bennett (C2017), Magnetic Field Precursors
      Andres Biondi (C2017), Epi-Conductor Precursors
      Caleb Vatral (C2018), Data Assimilation Platform
- Experience as a Principal Investigator developing a family of physics-based atmospheric (tropospheric and ionospheric) models for the **Air Force Research Laboratory, Hanscom Air Force Base, Hanscom, MA.**
- Led the **restoration of VSU's Lake Louise Field Station** – securing an Operational Budget endowment (200k$), funds to restore the Lake Louise boardwalk (400k$), and funds to support a director position (90k$), a total investment close to $1M.
- In the news: VSU launches data science program to power Valdosta's growing workforce
- In the news: *VSU graduates students in new engineering program* (walb.com)
- In the news: *Rice University president invited to speak to VSU students to discuss future of higher education - Valdosta Today*
- Expert in AI/ML Geospatial Intelligence Systems applied to Image Processing for data identification, restoration, discrimination, and enhancement.
- Expert in AI/ML-based Signal and Image Processing research for radar signal processing, data identification, restoration, discrimination, and enhancement.
- Expert in AI/ML-based Genetic Optimization Algorithm (GA) development with applications to Medical Image Tumor Segmentation.
- Expert in developing a Flexible Prior Model ionospheric tomography approach based on a set-theoretic framework and Bayesian Optimization.

Institutional Innovation and Transformation

- Program Prioritization, Departmental and Academic Restructuring
- Cross-sector engagement strategy with the Center for South Georgia Regional Impact (SGRI)
- Cross-sector engagement strategy with the Langdale Junior College of Business (LCOBA), the College of Fine Arts (COA), and the College of Nursing and Health Sciences (CoNHS).
- Cross-sector engagement strategy with the community via a revitalization and rebranding of the ORA Lee West Center – creating intersections, interfaces, and engagement between community, faculty, and students.
- Developed collaborative alignment with local and regional companies – creating interfaces and intersections with workforce training needs and departmental programming.
- Developed collaborative alignment with Valdosta's health sector industries and the South

Georgia Medical Center (SGMC) – providing pathways for faculty research, experiential learning for students, and research internships for Mercer's medical interns.
- Realignment and revitalization of the Regents Engineering Pathway (REPP) and Engineering Technology programs as collaborative applied research pathways working with local/regional companies

Supervisor Evaluation Language

"Has led faculty in an inward reflection on the College's mission and embarked on a conversation about student engagement, a critical area for the university and the USG." – Dr. Robert T. Smith, Provost and Vice President of Academic Affairs, **Annual Evaluation (2022)**

"Your hard work and dedication have been a significant benefit to VSU and have made my job easier." – Dr. Robert T. Smith, Provost and Vice President of Academic Affairs, **Annual Evaluation (2023)**

"You have been willing to make hard decisions in a variety of areas. You began the process of dealing with less productive faculty members and those who have behavioral challenges. You documented details well and have worked with HR to address difficult employees." – Dr. Sheri Noviello, Interim Provost and Vice President of Academic Affairs, **Annual Evaluation (2024)**

"You have shared your opinions freely in a very kind manner. You are accountable and responsible for your routine and ad hoc assignments and submit deliverables promptly. I find you to be very respectful and professional in your interactions with me." – Dr. Sheri Noviello, Interim Provost and Vice President of Academic Affairs, **Annual Evaluation (2024)**

EDUCATION

Sept. 1994–May 2000	**University of Massachusetts** Lowell, MA **Ph.D. – Applied Physics and EE** Specialization in Geophysics
Sept. 1990–May 1994	**University of Massachusetts** Lowell, MA **M.Sc. – Electrical Engineering** Specialization in Genetic Algorithms (GA/AI/ML) applied to Image Segmentation
Sept. 1986–May 1989	**Northeastern University** Boston, MA **B.Sc. – Electrical Engineering** Specialization in Signal & Image Processing

Sept. 1981–May 1986 **École Nationale des Ponts et Chaussées**
Paris, France
Diplome d'Ingénieurs
Mechanical Engineering
Specialization in Hydro Energy

PROFESSIONAL EXPERIENCE - ACADEMIA

Dean Jul 2021–Present
Professor of Engineering (Tenured 2021)
College of Science and Mathematics,
Valdosta State University – USG, 1500 N Patterson Avenue, Valdosta, GA

Responsibilities:

- Serving on the Dean's Council to advance the strategic direction and goals of the university, reporting to the Provost and VP of Academic Affairs.
- Fostering academic excellence in support of VSU's strategic initiatives, VSU 2030, and the advancement of the College.
- Implementation of innovative strategies and approaches towards promoting inter- and cross-disciplinary collaboration and enhancing value for the institution.
- Enhance the College's visibility and profile on a regional and national level while providing leadership in promoting faculty excellence in research, student training, and local and regional partnership development.
- Promoting the upward mobility of students by expanding access to career development, fostering partnerships with industry, and launching initiatives that enhance student academic and professional development.
- Efficiently manage the budget and resources of the College in the best interests of the College and the institution.
- Restructured and re-aligned the College's departments and programs to facilitate inter- and cross-disciplinary collaboration and align program offerings with market demands.
- Led alumni engagement and fundraising, working with University Advancement.

Science and Technology Division Chair, Aug 2015–Jun 2021
Professor of Physics & Engineering
Eastern Nazarene College, 23 East Elm Avenue, Quincy, MA

Responsibilities:

- Led the Division and its various departments: Biology, Chemistry, Physics, Engineering, Computer Science, Health, and Environmental Science
- Restructured and re-aligned the division to take advantage of inter- and cross-disciplinary collaboration

- Restructured the Engineering Curriculum – to be competitive with offerings from peer colleges and universities
- Developed the Senior Design Course Sequence – a highly successful model allowing students to work with local and regional industry – acquiring experience over a three-semester period as part of their Capstone
- Launched the Computer Science Department
- Launched the Health Science Department
- Launched the Cybersecurity and IT programs
- Launched the Pre-Nursing pathway programs (with collaboration from Regis College and the New England College of Pharmacy)
- Prototyped a fully online Engineering program with options in Mechanical, Electro-Mechanical, Mechatronics, and Systems Engineering
- Developed the Summer Research framework, an undergraduate research approach – more focused and controlled – modeled from the REU system

Physics and Engineering Department Chair, Aug 2012–Jun 2015
Associate Professor of Physics & Engineering (Tenured 2015)
Eastern Nazarene College, 23 East Elm Avenue, Quincy, MA

Responsibilities:

- Led the Department and its programs: Engineering, Physics, and Computer Science.
- Re-structured and re-aligned the Department to take advantage of inter- and cross-disciplinary collaboration.
- Re-structured the Engineering Curriculum – to be more competitive with offerings from peer colleges and universities.
- Designed and implemented a Capstone course sequence aligned with the needs of local companies and communities.
- Introduced service-learning to Capstone requirements
- Developed an undergraduate research program – tackling many important and difficult problems: earthquake nowcasting and forecasting (with NASA), improved technology for brain cancer radiotherapy, improved radar technology, etc.

Research Associate Jan 2001–May 2004
Advisor: Walter Kuklinski, Ph.D. (University of Massachusetts Lowell)
PhD Dissertation: *Flexible Prior Model Three-Dimensional Ionospheric Tomography*

- Derived novel Flexible Prior Model (FPM) mathematical framework based on "Set Theoretic" and "Bayesian Optimization" to correct peak ionospheric electron density in real-time based on data
- Marked improvements of physics-based prior models based on FPM correction of Chapman profiles of the electron density in real-time

Graduate Research Assistant Aug 1998–Jan 2000
Advisor: Walter Kuklinski, Ph.D. (University of Massachusetts Lowell)

- Developed the first family of Artificial Intelligence and Machine Learning (AI/ML) Genetic Algorithms (GA/AI/ML) based on the John Holland mathematical model and a unique framework for application to real problems
- Outstanding results applying GA/AI/ML to image segmentation and diagnosis of brain tumors, gum disease, and breast cancer

Undergraduate Research Assistant Jun 1982–Jun 1986

Advisor: Francis Moulia, PhD., (Ecole des Ponts-et-Chaussees)

- Principes de conservation d'energie et leur applications

PROFESSIONAL EXPERIENCE - CORPORATE

Chair, Radar and Communication Propagation Jul 2000–Aug 2012

Senior Principal, Raytheon Corporation, Andover, MA

Administrative Responsibilities:

- Created a Think-Tank group to study ionospheric effects on radar and communication propagation
- Provided a vision for improving radar performance with an ionospheric effect budget
- Developed a library of reference data in support of the group
- Developed a Learn-At-Lunch (LAL) series for internal and external presentations
- Secured renowned speakers for the LAL series every year

Research Activity:

- Developed ionospheric budgets on radar surveillance and tracking for all RTX radars
- Developed ionospheric budgets for radar and satellite communication
- Developed a new class of real-time scintillation assessment and correction on RCS
- Developed a new class of radar discrimination algorithms in a disturbed ionosphere
- Simulated the radar Signal Processing back end for several RTX radars
- Developed a novel, real-time, model-free ionospheric representation based on accurate data
- Developed a space weather nowcasting approach based on the real-time ionosphere

President and CEO Dec 1996– Jun 2000

374's Electric Power Corporation, Stoughton, MA

- Lead scientist responsible for product conception, design, and development
- Developed the first family of "surf hydro-electric systems" - US6133644A
- Led the development of the first Minimum Viable Product (MVP)
- Active and influential Member of the Board of Directors

President and CEO Dec 1996– May 1998

The Haitian Scientific Society, 2011 to 2012

Presided over the Board of Directors

Board of Directors Dec 1996– Jan 2023
American Polytechnic Institute - McLean, VA 22102
Member of the Academic Advisory Board
Provided academic vision for an innovative online platform

GRANT PORTFOLIO SUMMARY (1990-2024)

- Diversified portfolio of over 24M US$ in fundraising and research grants
- Academic Fundraising Summary (1991-2024)
  - ✓ (VSU) $3.2 M: Institutional Investment in STEM Cluster Hub 2025

  - ✓ (VSU) $390,000: EPIIC NSF Grant 2024
  - ✓ (VSU) $498,000: Sponsored NSF grant submission effort 2024
  - ✓ (ENC) $600,000: crowdfunding efforts totaling 2017
  - ✓ (ENC) $50,000: ENC Summer Research Fund (ENCF), Quincy, MA 2017
  - ✓ (ENC) $5.0M: fundraising efforts with Westfall Group 2016
  - ✓ (CORP) $400K: precursor SPC, NASA Research Park, Moffett Field 2015
  - ✓ (CORP) $3.3M: Integrated Defense System (IDS), Raytheon, Waltham, MA 2008
  - ✓ (CORP) $1.3M: Massachusetts Development Corporation (MDC) 2001
  - ✓ (CORP) $1.6M: Massachusetts Technology Collaborative, Northborough, MA 2000
  - ✓ (CORP) $8.5M: Air Force Research Laboratory (AFRL), Burlington, MA 1995
  - ✓ (CORP) $500,000: Synergy Incorporated, Walpole, MA 1992
  - ✓ (CORP) $350,000: Synergy Incorporated, Walpole, MA 1991
  - ✓ (CORP) $200,000: Synergy Incorporated, Walpole, MA 1990

- Selected Undergraduate Courses: Calculus-based Physics, Calculus (all levels), Physics (all levels), Electronics (all levels), Circuit Theory (all levels), Electromagnetic Field Theory (all levels), Communication Theory, Control Systems, Digital Signal Processing, Probability and Random Processes, and Signals and Systems

- Selected Graduate Courses: Communication Systems, Signals and Systems, Probability and Statistics, Signal and Image Processing, and Control Theory

TEACHING EXPERIENCE
Associate Professor, Physics and Engineering (ENC) – 2012 Professor (Tenured), Physics and Engineering (ENC) – 2015

- Undergraduate Courses: Electronics (all levels), Communication Theory, Control Systems, Signals and Systems, Introduction to Engineering
- Selected Graduate Courses: Communication Systems, Signals and Systems, Probability and Statistics, Signal and Image Processing

Lecturer – Raytheon Learning Institute – Waltham, MA – 2009 to 2012

- **2010**, Woburn Plant: Advanced Principles of Radars
- **2009**, Sudbury Plant: Basic Principles of Radars
- **2008**, Bedford Plant: Adaptive Signal Processing

- **2007**, Andover Plant: Radar Detection Theory
- **2006**, Woburn Plant: Radar Detection Theory
- **2005**, Sudbury Plant: Basic Principles of Radars

OTHER ACTIVITIES

- **Editorial Reviewer**
  Union of Radio Science (URSI) – 1998-Present
- **Invited Lecturer**
  Department of Mathematics, Boston
  Department of Physics, Harvard University, Cambridge, MA
  School of Engineering, MIT, Cambridge, MA
  Department of Mathematics, Northeastern University

AWARDS and RECOGNITION

1. Nominated for the USG Executive Leadership (ELI) program by VSU
2. Professional Achievement Award: Eastern Nazarene College, Professional Achievement Award, April 2018.
3. Editorial Board: Journal of Geography and Cartography, Enpress Publishing, June **2018**
4. Invited Speaker: Data Assimilation Platform for Earthquake Forecasting, University of Massachusetts Boston, July **2017**
5. Editorial Board: Wireless Communication Technology (WCT), WHIOCE Publishing PTE. LTD., May **2017**
6. Keynote Speaker: Boston University, "A sampling of professional experiences in the Mathematical Sciences", Boston University, Mathematics Department, April **2015**
7. Professional Achievement: Eastern Nazarene College, Professional Achievement Award, April **2014**
8. Pierre-Richard Cornely, Interviews & Articles: EARTH Magazine, June **2014**
9. Pierre-Richard Cornely, Interviews & Articles: American Geophysical Union, December **2013**
10. Pierre-Richard Cornely, Raytheon Technical Honoree Award, **2009-2011**
11. Pierre-Richard Cornely, Raytheon Symposium, Best Paper in Session Award, Sept **2009**
12. Pierre-Richard Cornely, Raytheon Learning Institute Award, **2006-2009**
13. Pierre-Richard Cornely, Technical Recognition: Conference Chair, IEEE Radar Conference, IEEE Catalog Number 07CH37790, ISBN:1-4244-0283-2, April **2007**
14. Pierre-Richard Cornely, Raytheon Team Achievement Award, **2006**
15. Invited Speaker: Boston University's Annual AFRAMATH Symposium, **2006-2007**

PEER-REVIEWED PUBLICATIONS (citation links embedded)

1. Pierre-Richard Cornely, Walter Kuklinski, "Genetic Optimization Applied to Medical Image Segmentation," Proceedings of the 1994 20th Annual Northeast Bioengineering Conference, March **1994**
2. Walter Kuklinski, Paul Fougere, Jacques Klobuchar, Pierre-Richard Cornely, Vala Afshar, "Three-Dimensional Ionospheric Tomography Using Iterative Cross Entropy Minimization," International Union of Radio Science (URSI), May **1996**
3. Pierre-Richard J. Cornely, "Three-dimensional Ionospheric Tomography based on Flexible Prior Models via a Parameterization of Ionospheric Density Disturbance",

International Journal of Aeronomy & Geomagnetism (IAGA), July **2000**

4. Cornely, P.R.J., "Flexible Prior Models: Three-dimensional ionospheric tomography", Radio Science, 38(5), 1087, June **2003**
5. Pierre-Richard J. Cornely, Walter S. Kuklinski, "Three-dimensional Ionospheric tomography via bandlimited constrained iterative cross-entropy minimization", Radio Science, 40(5), pp. 1-21, doi:10.1029, June **2005**
6. IEEE Radar Conference, IEEE Catalog Number 07CH37790, ISBN:1-4244-0283-2, April **2007**
7. Webert Montlouis, Pierre-Richard Cornely, "Direction of Arrival and Angular Velocities (DOAV) Estimation using Minimum Variance Beamforming", IEEE Radar Conference, June **2007**
8. Eli Brookner, Pierre-Richard J. Cornely, Francis Yuchoi Lok, "AREPS and TEMPER, Getting familiar with these powerful propagation Software tools", IEEE Radar Conference, June **2007**
9. Pierre-Richard Cornely, "Flexible Prior Model Four Dimensional Electron Density, Total Electron Content (TEC) and Applications to Radar Tracking [Parameter Estimation] in Real Time", IEEE Radar Conference, June 2007
10. Pierre-Richard Cornely, "A Complete Amplitude and Phase Characterization of Ionospheric Scintillation", Raytheon RF System Symposium (Best Paper in Conference), 09RF039, May **2009**
11. Pierre-Richard Cornely, "Electro Magnetic Interference Analysis and Mitigation via Time and Frequency Domain Excision", Raytheon ISac Symposium, 10IC174 2010, April **2010**
12. Pierre-Richard Cornely, "Modified and Improved Lomb-Scargle Periodogram for estimating the Complex Discrete Fourier
13. Transform of Irregularly- and Under-Sampled Data in Real Time", Raytheon RF System Symposium, 11RF020, May **2011**
14. Pierre-Richard Cornely: Receiver Biases in Global Positioning Satellite Ranging, Global Navigation Satellite Systems ISBN: 978-953-51-1162-7, InTech, DOI:10.5772/55567, June **2013**
15. Michael O'Brien, Pierre-Richard Cornely, "Analyzing Anomalies in the Ionosphere above Haiti Surrounding the 2010 Earthquake", Journal of Young Investigators, June **2014**
16. Joseph Hammerstrom, Pierre-Richard Cornely, "Total Electron Content (TEC) Variations and Correlation with Seismic Activity over Japan", Journal of Young Investigators, October **2016**
17. Pierre-Richard Cornely, John Hughes, "Unbiased Total Electron Content (UTEC), their fluctuations and correlation with seismic activity over Japan", Acta Geophysica, Volume 66, Issue 1, pp 51–70, February **2018**
18. Pierre-Richard Cornely, **"**New Approach to Equalizing Antenna Elements: Analysis and Performance Evaluation", Journal of Wireless Communication, WHIOCE Publishing PTE LTD., doi: 10.18063/wct.v2i1.629**,** Vol. 2, Issue 1, May **2018**
19. Pierre-Richard Cornely, "Genetic Optimization Mapping applied to Medical Image Segmentation**",** Journal of Geography and Cartography, Volume 1 doi:10.24294/jgc.v1i2.830, May **2018**
20. Pierre-Richard Cornely, Gerald T M."The Future of the Field of Earthquake Forecasting, New Data Assimilation and Fusion Strategy, towards Timely Earthquake Prediction and Warning". COJ Rev & Res. 1(3). COJRR.000511. July **2018**
21. Salah Badjou, Rachid Dahmani, Pierre-Richard Cornely, "Development and

Implementation of an Innovative Hybrid Mechanical Engineering Course", 2019 ASEE Zone 1 Conference, Niagara Falls, April **2019**

22. Pierre-Richard Cornely and Caleb Vatral, "Statistical Significance of Pre-Seismic Anomalies in Total Electron Content in Napa Valley, California". Nov Res Sci. 12(3). NRS. 000787. **2022**
23. Pierre-Richard Cornely and Jin Wang, "Advancing Earthquake Prediction: A Comprehensive Review of Data Science Techniques" *2023 6th International Conference on Computing and Big Data (ICCBD)*, Shanghai, China, **2023**, pp. 9-16, doi: 10.1109/ICCBD59843.2023.10607190.
24. Wang, Jin, and Pierre-Richard Cornely. "Addressing Academic Misconduct in the Age of ChatGPT: Strategies and Solutions." *Proceedings of the 2023 7th International Conference on Education and E-Learning*. **2023**
25. Wang, Jin, and Pierre-Richard Cornely. "Data-Driven Decisions: Exploring the Impact of Data Mining in Healthcare." *2023 6th International Conference on Computing and Big Data (ICCBD)*. IEEE, **2023**

OTHER PUBLICATIONS (citation links embedded**)**

1. Walter Kuklinski, Charles Byrne, Pierre-Richard Cornely, Vala Afshar, "Three-Dimensional Ionospheric Tomography Using Bandlimited Constrained Minimum Cross Entropy Optimization", Computerized Ionospheric Tomography (CIT) Conference, February **1997**
2. Pierre-Richard Cornely, Joseph Smith, "Surf-Driven Electrical Apparatus", United States Patent Office (USPTO) Number 6, 133,644, 10/17/2000, Articles, October 17, August **2000**
3. Pierre-Richard J. Cornely, "The future of Radar Coverage and Propagation: Four-dimensional real-time atmospheric error correction using the Global Positioning System", Raytheon Technology Today, March **2006**
4. Pierre-Richard Cornely, "Multiple Input, Multiple Output (MIMO) Radar, an idea whose time has come", Raytheon Technology Today, January **2008**
5. P. K. Rastogi, M. L. Krempin, M. T. Fenn, M. E. Foucher, P-R J. Cornely, B. D. Coslick, D. J. Padden, and W. Heres, Special Radar Algorithm, 8th Annual U. S. Missile Defense Conference and Exhibit, March **2010**
6. Pierre-Richard Cornely. "Modeling Radar and Communication Channels in a Highly Scintillated Environment", Haitian Scientific Society Seminar Series. January **2010**
7. Pierre-Richard Cornely, "Receiver Biases in Global Positioning Satellite Ranging", DOI: 10.5772/55567, In book: Global Navigation Satellite Systems - From Stellar to Satellite Navigation, June **2013**
8. Pierre-Richard Cornely. "Genetic Algorithm IEEE" **2016**
9. Pierre-Richard Cornely, "Real Time Periodogram Estimate for modeling the Complex Fourier Transform of irregularly- and under-sampled radar return data", DOI: 10.13140/RG.2.2.17678.36161, October **2016**
10. Pierre-Richard Cornely, "A Complete Amplitude and Phase Characterization of Ionospheric Scintillation", DOI: 10.13140/RG.2.2.14322.91842, October **2016**
11. Pierre-Richard Cornely, "Electro Magnetic Interference Analysis and Mitigation via Time and Frequency Domain Excision", DOI: 10.13140/RG.2.2.27744.69124, October **2016**
12. Pierre-Richard Cornely, Gerald T McNeil III, "The Future of the Field of Earthquake Forecasting, New Data Assimilation and Fusion Strategy, towards Timely Earthquake Prediction and Warning", COJ Reviews and Research, C CRIMSON PUBLISHERS Wings to the Research, July **2018**

13. Rear Admiral Tim Gallaudet, Ph.D., U.S. Navy (Ret.) & Dr. Pierre-Richard Cornely, The USGS Is Holding Back Earthquake Prediction, RealClear Science Newsletter, **2023**

INSTITUTIONAL SERVICE (Selected List)

- VSU OCCA Solutions	2021-Present
- VSU Dean's Council	2021-Present
- VSU POISED	2022-2023
- VSU Rufallo Noel Levitz (RNL)	2023-2004
- VSU CoSM Advisory Board	2021-Present
- VSU CoSM Executive Committee	2021-Present
- VSU CoSM Sense of Belonging Committed (founder)	2021-2022
- VSU CoSM Natural Advisory Committee	
- ENC Honors Program Committee	
- ENC Scholarship Fund Committee	2013-Present
- ENC Multicultural Affairs Committee	2013-2015
- ENC Program Review Committee	2013- 2016
- ENC Academic Symposium Committee	2013- 2016
- ENC Social Justice Task Force Committee	2013-2017
- ENC Faculty Council Committee	2013-2015
- ENC Writing and Speech Across Discipline Committee	2014-2015
- ENC Institutional Professional Development (IPD) Committee	2014-2016
- ENC Enrollment/Recruitment Taskforce	2015-2017
- ENC Dean's Advisory Council (DAC) Committee	2015-2017
- ENC Tenure Committee	2016-2021
- ENC Faculty Promotion Committee	2016-2021
- ENC Student Retention Committee	2016-2021
- ENC Task Force Committee	2017-2018
- ENC Academic Leadership Team (ALT)	2017-2021

PROFESSIONAL REFERENCES:

1. **Dr. Sheri Noviello**
   Interim Provost and Vice President
   Valdosta State University
   Email: srnoviello@valdosta.edu
   Phone: 706-358-6276
2. **Dr. Robert Smith**
   Chancellor,
   LSU Shreveport
   Phone: 717-201-9757
3. **Rev. Dr. Jack Connell**
   ENC President (2019-2023)
   Email: 6connells@gmail.com
   Phone: 585-474-7754
4. **Dr. William McCoy**
   ENC Vice President of Academic Affairs
   Email: Profwilliammccoy@gmail.com
   Phone: 617-842-2646
5. **Dr. Joseph Williams,**
   Professor of
   Chemistry, Evangel
   University
   Natural and Applied Sciences Department
   Email: jewill03@gmail.com
   Phone: 781-619-4027