Dejenie A. Lakew, Ph.D.　　　　　　　**Curriculum vitae**　　　　　

100 Lakeview Park Road #108 * Colonial Heights, VA 23834 * Phone Cell (804)402-3588

dejenieal@gmail.com

Objective

Applying for a tenure track, assistant/associate professor of mathematics position

Education

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- **Ph.D.**, Mathematics, University of Arkansas, Fayetteville
- **M.Sc.**, Mathematics, Addis Ababa University, Ethiopia
- **B.Sc.**, Mathematics, Addis Ababa University, Ethiopia

Research Experience

- John Tyler Community College
  (i) Orthogonal decomposition of a Sobolev space
  (ii) New proofs of properties of orthogonal decomposition of a Hilbert space
  (iii) Orthogonal decomposition of a Hilbert space
  (iv) Clifford analysis on Orlicz-Sobolev spaces
  (v) Norm estimates
  (vi) Best approximation of a harmonic function
  (vii) Fibonacci sequence via discrete Laplace transform
- Virginia Union University
  (i) Spherical π operator
  (ii) Hyper singular integral operators
- Virginia State University
  (i) Best approximation of a regular function
  (ii) The intrinsic π operator over domain manifolds
- University of Arkansas at Pine Bluff
  (i) Clifford valued complete functions systems
  (ii) Decomposition results
  (iii) Differential operator of infinite order
- University of Arkansas - doctoral research on Clifford analysis
- Addis Ababa University- cooperative research on over determined boundary value problems

Research Interests

Clifford analysis, partial differential equations, functional analysis and operator theory

Teaching Experience
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John Tyler Community College (adjunct faculty) 2011- present

- Developmental mathematics, college algebra, pre-calculus, calculus, statistics

Virginia Union University (Associate professor) 2008-2010

- College algebra, calculus, college trigonometry, discrete mathematics, calculus for business I, differential equations, introduction to statistics, advising independent study, mathematics for business

Virginia State University (Assistant professor) 2006-2008

- Basic mathematics, calculus I, college algebra, trigonometry, finite mathematics

University of Arkansas at Pine Bluff (Assistant professor) 2000-2006

- College algebra, abstract/modern algebra, trigonometry, discrete mathematics, calculus, differential equations and mathematical modeling, linear algebra

Addis Ababa University (Lecturer) 1989-1994

- Elementary calculus, calculus, linear algebra, abstract algebra, complex variables, introduction to real analysis/graduate course

Asmara University (Assistant lecture) 1984-1988

- College algebra, calculus, abstract algebra, linear algebra

Leadership Skill
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- Interim chair of the department of mathematics at VUU
- Chair person to faculty search and curriculum committees

Skills
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- **Computer skills** - R programming (Introductory), FORTRAN, Basic, Lisp, Prolog, Microsoft Office (word, excel and power point), scientific workplace, a mathematical soft ware for writing mathematics texts.
- **Social media & networking** – research gate posing questions, discussions, LinkedIn
- **Communication skills** - excellent written and communication skill, teaching for over 30 years in a very clear and understandable manner, capable of proposing ideas and solutions to problems.
- **Passion and self propelled work ethics** – written over 20 papers from mere intellectual curiosity, passion and work ethics.

Awards & Recognitions
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- Teaching assistant position – University of Arkansas
- Summer doctoral fellowship – University of Arkansas
- Marquis Who's Who

Selected Publications
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- Orthogonal decomposition of a Sobolev space (pre print) 2016
- New proofs of properties of orthogonal decomposition of a Hilbert space, arXiv: 1510.07944v1, Oct. 27, 2015
- On orthogonal decomposition of a Hilbert space $\mathcal{L}^2(\Omega)$, International J. of Math. and Comp. Sci., Vol. 10, No. 1 (2015) 27-37; arXiv:1503.01209v1, 2015,
- Clifford analysis on Orlicz-Sobolev spaces, arXiv : 1409 : 8380v1, 2014 (with Mulugeta Alemayehu)
- Norm estimates for solutions of elliptic BVPs of the Dirac operator, arXiv : 1401 : 3904v1, 2014
- The Fibonacci sequence via the $\sum$ - transform, arXiv : 1401 : 0243v1, 2014
- The intrinsic π - operator on domain manifolds in $\mathbb{C}^{(n+1)}$, Complex Analysis and Operator Theory, Vol. 4, No. 2 (2010) 271-280 (with John Ryan).
- The spherical π operator, arXiv: 0811: 3257v1, 20 Nov 2008.
- W_{Cl_{n}}^{2,k}-best approximation of a γ - regular function, J. Appl. Anal., Vol. 13, No. 2 (2007) 259-273.
- Complete function systems and decomposition results arising in Clifford analysis, Comp. Meth. Function Theory, CMFT, No1 (2002) 215-228 (with John Ryan).
- Complete function systems and decomposition results arising in Clifford analysis, Progress in Analysis: Proceedings of 3rd International ISSAC congress Vol. 1 (2001) 325-336 (with John Ryan).
- Clifford analytic complete function systems for unbounded domains, Math. Meth. Appl. Sci., Vol. 25(2002) 1527 - 1539 (with John Ryan).
- Over determined problems for elliptic equations, Proceedings of the 4th Int. Coll. on Differential Equations, VSP, Inter. Sci. Pub., The Netherlands, 1994: 11 – 20 (with Giovanni Porru).

Selected Presentations

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- Virginia Commonwealth University, department of mathematics & applied mathematics, analysis, logic and physics seminar, Oct. 16, 2015: "On orthogonal decomposition of a Hilbert space"
- 1022nd AMS Special Session on "Dirac operators in analysis and geometry", Nov. 3 - 4; 2006; University of Arkansas, Fayetteville: "The intrinsic π - operator on domain manifolds"
- Departmental colloquium presentation at VSU, Oct. 2006: "Finite $Cl_{\{n\}}$ - minimal functions to approximate a γ- regular function".
- American Mathematical Society, Joint Mathematics Meeting, Jan. 7 - 10; 2004, Phoenix Arizona:"Best approximation of a γ - monogenic function over certain Sobolev spaces"
- 63rd annual meeting of the Mathematical Association of America (MAA), Oklahoma-Arkansas Section, March 30 - 31; 2001: " $\mathcal{L}^{\{p\}}$ - approximations"
- 62nd Annual Meeting of the MAA of Oklahoma-Arkansas Section, March 31-April 1; 2000: "Elliptic BVPs and $Cl_{\{n\}}$ - complete function systems"
- Departmental Seminar on my doctoral thesis at the University of Arkansas-Fayetteville:"First and higher order BVPs and Clifford analytic complete function systems in the Bergman spaces $B^{\{p\}}(\Omega, Cl_{\{n\}})$ and $B^{\{p, l\}}(\Omega, Cl_{\{n\}})$
- 61st Annual Meeting of the MAA of Oklahoma-Arkansas Section, March 26 - 27; 1999: "$Cl_{\{n\}}$ - complete function systems over unbounded Lipchitz domains in $\mathbb{R}^n$"