

CHINEDU IZUCHUKWU

School of Mathematics, Faculty of Science, University of the Witwatersrand, South Africa

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<https://www.wits.ac.za/people/academic-a-z-listing/i/chineduizuchukwuwitsacza/>

PERSONAL INFORMATION

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|------------------------|--------------|
| ➤ Date of Birth | 5th May 1990 |
| ➤ Country of Residence | South Africa |
| ➤ Gender | Male |
| ➤ Marital Status | Married |
| ➤ Language | English |

CURRENT POSITION

- **Senior Lecturer**, School of Mathematics, University of the Witwatersrand, Johannesburg, South Africa, March 2025-Present.
- **Assistant Postgraduate Coordinator**, School of Mathematics, University of the Witwatersrand, Johannesburg, South Africa, February 2024-Present.

RESEARCHER ID (LINKS)

- ORCID ID: <https://orcid.org/0000-0002-8262-8605N>
- ResearchGate Profile: https://www.researchgate.net/profile/Chinedu_Izuchukwu/research
- Google Scholar Page: <https://scholar.google.com/citations?user=gNk3wVsAAAAJ&hl=en>
- Scopus Page: <https://www.scopus.com/authid/detail.uri?authorId=57200500752>
- Web of Science Page: <https://www.webofscience.com/wos/author/record/1397475>

PREVIOUS POSITIONS

- **Lecturer**, School of Mathematics, University of the Witwatersrand, Johannesburg, South Africa, August 2022-February 2025.
- **Postdoctoral Research Fellow**, Faculty of Mathematics, The Technion—Israel Institute of Technology, Israel, December 2020-July 2022.
Host: Professor (Emeritus) Simeon Reich
- **Postdoctoral Research Fellow**, School of Mathematics, Statistics and Computer Science, University of KwaZulu-Natal (UKZN), South Africa, January 2020-December 2020.
Host: Professor Oluwatosin Temitope Mewomo
- **Teaching Assistant**, Department of Mathematics, Durban University of Technology, South Africa, April 2019-August 2020.

- **Teaching Assistant**, School of Mathematics, Statistics and Computer Science, University of KwaZulu-Natal (UKZN), July 2016-December 2019.

ACADEMIC QUALIFICATIONS

- **PhD in Mathematics**, University of KwaZulu-Natal, South Africa, July 2017-November 2019.
Thesis: *A study of optimization and fixed point problems in certain geodesic metric spaces.*
Supervisor: Professor Oluwatosin Temitope Mewomo
- **MSc by Research in Mathematics (Summa Cum Laude)**, University of KwaZulu-Natal, South Africa, July 2016-May 2017.
Dissertation: *Iterative algorithms for approximating solutions of variational inequality problems and monotone inclusion problems.*
Supervisor: Professor Oluwatosin Temitope Mewomo
- **BSc in Mathematics and Computer (Second Class Honour, Upper Division)**, Ebonyi State University, Nigeria, December 2009-May 2014.
Project: *Solutions to some problems in mathematical analysis.*
Supervisor: Professor Jeremiah Nkwegu Ezeora

CITATIONS (BIBLIOMETRICS)

- Google Scholar
 - Citation 1569
 - H-Index 25
- Scopus
 - Citation 1405
 - H-Index 23
- Web of Science
 - Citation 1174
 - H-Index 21

REVIEWER (JOURNALS & APPLICATIONS)

Journals:

1. SIAM Journal on Optimization.
2. Journal of Computational and Applied Mathematics.
3. Journal of Optimization Theory and Applications.

4. Communications in Nonlinear Science and Numerical Simulations.
5. Soft Computing.
6. Scientific African.
7. Mathematical Methods of Operations Research.
8. Journal of Industrial and Management Optimization.
9. Mathematics and Computers in Simulations.
10. Mathematical Methods of Operations Research.
11. Analysis and Geometry in Metric Spaces.
12. Japanese Journal of Mathematics.
13. Optimization.
14. Numerical Functional Analysis and Optimization.
15. Demonstratio Mathematica.
16. Journal of Mathematical Modeling.
17. Journal of Nonlinear Modeling and Analysis.
18. Journal of Inequalities and Applications.
19. The Journal of Analysis.
20. Fixed Point Theory and Algorithms for Sciences and Engineering.
21. Fixed Point Theory and Application.
22. Fixed Point Theory.
23. Mathematical Reviews/MathSciNet (Reviewer Number: 146679).

Applications:

1. MSc external examiner, examination of dissertation at the College of Agriculture, Engineering and Science, University of KwaZulu-Natal, South Africa – May 2025
2. Member of a pseudo panel for the School of Mathematics (Wits University) internal review of NRF postgraduate applications (29-Aug to 6-Sept) 2024.
3. External Reviewer for Associate Professorship Position at the Department of Mathematics, Government College University, Lahore, Pakistan (July 2023).

POSTGRADUATE SUPERVISION (COMPLETED)

S/N	Name of Candidate/School	Title	Supervisor	Date	Degree	Grade
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1	Lusanda Mzimela (217016298) University of KwaZulu-Natal	New iterative technique for solving optimization problems	Main Supervisor: Dr. Ojen Kumar Narain	January 2023- Decem ber 2023	MSc (by research) Mathematics	82% Summa Cum Laude
2	Joseph Omenuko Nwebonyi (223152448) University of KwaZulu-Natal	A study of projection- type algorithms with simple and elegant structures for solving variational inequalities	Main Supervisor: Dr. Ojen Kumar Narain	January 2023- Decem ber 2023	MSc (by research) Mathematics	77% Cum Laude
3	Kalu Okam Okorie (2710937) University of the Witwatersrand	Inertial type algorithms for split feasibility problems	Main Supervisor: Dr. Christian Okeke	January 2023- Decem ber 2023	MSc (by research) Mathematics	94 % Distinc tion
4	Chidi Elijah Nwakpa (2713235) University of the Witwatersrand	Relaxed inertial algorithms for solving equilibrium problems	Main Supervisor: Dr. Christian Okeke	January 2023- Decem ber 2023	MSc (by research) Mathematics	78% Distinc tion
5	Dumisani Mahlangu (1682375) University of the Witwatersrand	Application of Banach contraction principle to a fractional- order epidemic model.	Sole	January 2023- Decem ber 2023	Honours Mathematics	-----
6	Sifiso Nkosi (1434902) University of the Witwatersrand	Application of fixed point theory to the existence and uniqueness of solution to	Sole	January 2023- Decem ber 2023	Honours Mathematics	-----

		differential equations				
7	Thato Ndlovu (2212535) University of the Witwatersrand	Proximal Operators	Sole	January 2024	Honours Mathematics	-----
8	Ernest Chinyere Obini (224197904) University of KwaZulu-Natal	A study of the second-order differential equations for solving monotone inclusions	Main Supervisor: Dr. Ojen Kumar Narain	July 2024	MSc (by research) Mathematics	
9	Funanani Mugodo (2304140) University of the Witwatersrand	Metric Projection in Hilbert Spaces	Sole	January 2024	Honours Mathematics	-----
10	Tumelo Ranoto (2092232) University of the Witwatersrand	A study of second-order dynamical system for solving variational inequality problems	Sole	January 2024	MSc (by research) Mathematics	87% Distinction

POSTGRADUATE SUPERVISION (IN PROGRESS)

S/N	Name of Candidate/School	Title	Supervisor	Date	Degree
1	Onifade Olayinka Martins (222121238)	Algorithms for solving multivalued variational	Main Supervisor: Dr. Ojen	July 2023	PhD Mathematics

	University of KwaZulu-Natal	inequalities in infinite dimensional spaces	Kumar Narain		
2	Tumelo Ranoto (20 92232) University of the Witwatersrand	A study of second-order dynamical system for solving variational inequality problems	Sole	April 2025	PhD Mathematics
3	Thoriso Morongoa Sefako Makgatho Health Science University	A study of new methods for solving variational inequality problem.	Sole	March 2024	MSc (by research) Mathematics
4	Lusanda Mzimela (217016298) University of KwaZulu-Natal	A study of new discretized methods for solving optimization problems	Main Supervisor: Dr. Ojen Kumar Narain	April 2024	PhD Mathematics
7	Joseph Omenuko Nwebonyi (223152448) University of KwaZulu-Natal	Improved convergence methods for solving variational inequalities	Main Supervisor: Dr. Ojen Kumar Narain	April 2024	PhD Mathematics
5	Kalu Okam Okorie (2710937) University of the Witwatersrand	New techniques for bilevel variational inequalities	Main Supervisor: Dr. Christian Okeke	April 2024	PhD Mathematics
6	Chidi Elijah Nwakpa (2713235) University of the Witwatersrand	A study of optimization problems in real Hilbert spaces from continuous and discrete perspectives	Co-Supervisor: Dr. Christian Okeke	April 2024	PhD Mathematics
7	Zitha, Bridget Lindokuhle (2331187) University of the Witwatersrand		January 2025	January 2025	MSc (by research) Mathematics
8	Siyabonga Mhlongo (2217481)		January 2025	January 2025	MSc (by research) Mathematics

	University of the Witwatersrand				
9	Funanani Mugodo (2304140) University of the Witwatersrand		January 2025	January 2025	MSc (by research) Mathematics

FUNDING AND FELLOWSHIPS

Project grants

- Project Title:** Optimization Algorithms for Urban Traffic Management
Collaborator: Dr. Salissou Moutari, School of Mathematics and Physics, Queen's University Belfast, UK
Sponsors: London Mathematical Society, UK
Project Year: 2025
Research Grant Number: 52303
Project Amount: £ 2,980 (for a month research visit to Queen's University)
Project Status: Completed.
- Project Title:** 36-hour Course on Functional Analysis and Its Applications
Host: Dr. Chinwendu Emilian Madubueze, Department of Mathematics, Joseph Sarwuan Tarka University, Makurdi, Nigeria
Sponsors: CIMPA
Project Year: 2024
Project Amount: € 2000 (for a 36-hour lecture series in Functional Analysis)
Project Status: Upcoming.
- Project Title:** Vector Variational Inequalities (TMF-junior guest professor)
Host: Prof. Elisabeth Anna Sophia Köbis, Norwegian University of Science and Technology, Trondheim, Norway
Sponsors: Trond Mohn Foundation
Project Year: 2024
Project Amount: 70000 NOK (for a two-month research visit to Trondheim)
Project Status: In progress.
- Project Title:** Corrected relaxed inertial algorithms for variational inequalities with applications to traffic models
Collaborator: Dr. Salissou Moutari, School of Mathematics and Physics, Queen's University Belfast, UK

Sponsors: London Mathematical Society, UK and NGA(MaSS), South Africa
Project Year: 2024
Research Grant Number: 52303
Project Amount: £ 2,400 + R 60000 (for a two-month research visit to Queen's University)
Project Status: Completed.

5. **Project Title:** Old and new iterative algorithms for solving fixed point and optimization problems

Sponsor: Faculty of Science, Wits University Johannesburg, SA
Project Year: 2022-2024
Project Amount: R 105,000
Project Status: Completed.

6. **Project Title:** Relaxed inertial algorithms for optimization problems

Collaborators: Professor Jen-Chih Yao and Professor Ching Feng Wen
Sponsor: Center for Fundamental Science, Kaohsiung Medical University (KMU), Taiwan and CoE-MaSS South Africa
Project Year: 2023
Project Amount: R 25000 (for a one-month research visit to KMU)
Project Status: Completed.

7. **Project Title:** Pathways to a successful academic career programme

Facilitator: Professor Emeritus Loyiso G. Nongxa, Wits University Johannesburg, SA
Sponsor: NGA (MaSS), SA
Project Year: 2023
Project Amount: R 25,000
Project Status: Completed.

8. **Project Title:** Welcome: New Academics

Collaborators: Dr. Ane Orchard and Mr. Mitchell Hughes, Wits University Johannesburg, SA
Sponsor: Research Office and CLTD, Wits University Johannesburg, SA
Project Year: 2023
Project Amount: R 50,000 (allocated)
Project Status: Completed.

9. **Project Title:** A study of optimization problems in linear and nonlinear spaces

Collaborator: Professor Emeritus Simeon Reich, Technion Haifa, Israel
Sponsor: Technion, Haifa, Israel
Project Year: 2020-2022
Project Amount: NIS 240,000
Project Status: Completed.

10. **Project Title:** Iterative methods for approximating solutions of convex optimization problems with applications

Collaborator: Professor Oluwatosin Temitope Mewomo, UKZN Durban, SA
Sponsors: National Research Foundation and CoE-MaSS, SA
Project Year: 2020
Grant Number: 120784 (National Research Foundation)
Project Amount: R 259,000
Project Status: Completed.

DISTINCTIONS AND SCHOLARSHIPS

1. **Wits Research Excellence Award for rated researchers.** Awarded by The Office of The Deputy Vice-Chancellor (Research and Innovation), 2024.
2. **NRF Y-Rating.** Awarded by the National Research Foundation, South Africa, 2024.
3. **Research Award** in the category of the **Top 10 Most Published Postgraduate Students** in UKZN for 2021 Research Ranking. Awarded by the Research Office and the Corporate Relations Division, UKZN, November 2022.
4. **Research Award** in the category of the **Top 10 Most Published Postgraduate Students** in UKZN for 2019 Research Ranking. Awarded by the Research Office and the Corporate Relations Division, UKZN, November 2020.
5. **Research Award** in the category of the **Top 10 Most Published Postgraduate Students** in UKZN for 2018 Research Ranking. Awarded by the Research Office and the Corporate Relations Division, UKZN, November 2019.
6. **Heidelberg Laureate Forum (HLF) Travel Grant** (7th HLF, Heidelberg, Germany), September 2019.
7. Center of Excellence in Mathematical and Statistical Science (South Africa) **PhD Bursary Award**, 2019.
8. **Prize for the Best Poster Presenter** in the School of Mathematics, Statistics, and Computer Science. Awarded by the College of Agriculture, Engineering, and Science, UKZN, October 2017.
9. **S2A3 Medal Award for the Best Masters Research Dissertation** across all Sciences and Applied Science in UKZN. Awarded by the Southern Africa Association for the Advancement of Science (S2A3), August 2017.
10. **Summa Cum Laude Scholarship Award.** Awarded by UKZN, South Africa, June 2017.
11. **Travel Grant to South Africa for Postgraduate Studies.**
Awarded by the National Mathematical Center (NMC), Nigeria, July 2016.

FIELDS of INTEREST

- Continuous Optimization (Dynamical Systems)
- Discrete Optimization (Optimization Algorithms)
- Variational Inequalities & Monotone Inclusions
- Fractional & Variational Calculus
- Numerical & Computational Methods.
- Differential Equations & Mathematical Models.
- Applicable Functional Analysis & Nonlinear Operator Theory.

PUBLICATIONS

Selected Publications in Peer Reviewed Journals (See Google Scholar Page OR ResearchGate Profile for all Publications)

1. **Chinedu Izuchukwu** and Yekini Shehu, Strongly convergent forward-reflected-anchored-backward splitting algorithms to solve iteratively variational inequalities in Hilbert spaces, *Journal of Computational and Applied Mathematics*, **475**, (2026), 117035
2. **Chinedu Izuchukwu**, Simeon Reich, Yekini Shehu, Convergence of an inertial reflected-forward-backward splitting algorithm for solving monotone inclusion problems with application to image recovery, *Journal of Computational and Applied Mathematics*, **460**, (2025), 116405
3. **Chinedu Izuchukwu** and Yekini Shehu, Inertial reflected Krasnosel'ski-Mann iteration with applications to monotone inclusion problems, *Optimization*, **74**, (2025), 683-707
4. **Chinedu Izuchukwu**, Timilehin Opeyemi Alakoya, Salissou Moutari, Shengda Zeng, Numerical Applications of Inertial Stochastic Reflected Forward Backward Splitting Method to Traffic Network Problems, *Journal of Optimization Theory and Applications*, **207**, 23 (2025). <https://doi.org/10.1007/s10957-025-02779-1>
5. Grace Nnennaya Ogwo, **Chinedu Izuchukwu**, Yekini Shehu, and Xiaopeng Zhao, A new version of forward-backward-forward splitting algorithm for monotone inclusions, *Computational and Applied Mathematics*, **44**, 363 (2025). <https://doi.org/10.1007/s40314-025-03318-4>
6. Soumitra Dey, **Chinedu Izuchukwu**, **Adeolu Taiwo** and Simeon Reich, New iterative algorithms for solving split monotone inclusions, *Journal of Global Optimization*, (2024). <https://doi.org/10.1007/s10898-024-01444-7>

7. **Chinedu Izuchukwu**, David Amilo, Khadijeh Sadri, Hao-Ren Yao, Jen-Chih Yao, Application of a reflected forward backward splitting method with momentum to a fractional-order lung cancer model, *Communications in Nonlinear Science and Numerical Simulation*, **151** (2025) 109055.
8. Chidi Elijah Nwakpa, Austine Efut Ofem, **Chinedu Izuchukwu**, Chibueze Christian Okeke, Relaxed Inertial Subgradient Extragradient Algorithm for Solving Equilibrium Problems, *Mathematical Methods of Operations Research*, **101** (2025), 331–371.
9. **Chinedu Izuchukwu**, Yekini Shehu and Jen-Chih Yao, Convergence results for proximal point algorithm with inertial and correction terms, **104**, (2025), 1732-1752. <https://doi.org/10.1080/00036811.2024.2432527>
10. Lusanda Mzimela, **Chinedu Izuchukwu**, Akindele Adebayo Mebawondu and Ojen Kumar Narain, A new relaxed inertial method for solving monotone inclusion problem, *Rendiconti del Circolo Matematico di Palermo Series 2*, **74** (2025). <https://doi.org/10.1007/s12215-025-01186-9>
11. Habib ur Rehman, Debdas Ghosh, **Chinedu Izuchukwu** and Xiaopeng Zhao, Solving Equilibrium and Fixed-Point Problems in Hilbert Spaces: A New Strongly Convergent Inertial Subgradient Extragradient Method, *Optimization*, (2025), <https://doi.org/10.1080/02331934.2025.2499819>
12. **Chinedu Izuchukwu**, Yekini Shehu and Jen-Chih Yao, New strong convergence analysis for variational inequalities and fixed point problems, *Optimization*, (2024). <https://doi.org/10.1080/02331934.2024.2424446>
13. **Chinedu Izuchukwu** and Yekini Shehu, A Golden Ratio Algorithm with Backward Inertial Step for Variational Inequalities, *Communications in Nonlinear Science and Numerical Simulation*, **138**, (2024), 108217
14. **Chinedu Izuchukwu** and Yekini Shehu, A new inertial projected reflected gradient method with application to optimal control problems. *Optimization Methods and Software*, **39**(1) (2024), 197–226. <https://doi.org/10.1080/10556788.2023.2246168>
15. **Chinedu Izuchukwu**, Grace Nnennaya Ogwo and Yekini Shehu, Proximal point algorithms with inertial extrapolation for quasi-convex pseudo-monotone equilibrium problems, *Networks and Spatial Economics*, **24** (2024), 681-706. <https://doi.org/10.1007/s11067-024-09632-4>
16. **Chinedu Izuchukwu**, Grace Nnennaya Ogwo, Bertin Zinsou, A new inertial condition on the subgradient extragradient method for solving pseudomonotone equilibrium problem, *Communications in Nonlinear Science and Numerical Simulation*, **135**, (2024), 108076

17. Oluwatosin Temitope Mewomo, Grace Nnennaya Ogwo, Timilehin Alakoya and **Chinedu Izuchukwu**, Strongly convergent inertial projection and contraction methods for split variational inequality problem, *Rendiconti del Circolo Matematico di Palermo Series 2*, **73** (2024), 2069–2106 <https://doi.org/10.1007/s12215-024-01022-6>
18. David Amilo, **Chinedu Izuchukwu**, Khadijeh Sadri, Hao-Ren Yao, Evren Hincal, Yekini Shehu, A Fractional-Order Model for Optimizing Combination Therapy in Heterogeneous Lung Cancer: Integrating Immunotherapy and Targeted Therapy to Minimize Side Effects, *Scientific Reports* **14**, 18484 (2024), 1-32. <https://doi.org/10.1038/s41598-024-66531-x>
19. **Chinedu Izuchukwu**, Yekini Shehu and Qiao-Li Dong, Two-step inertial forward-reflected-backward splitting method for non-convex mixed variational inequalities, *Journal of Computational and Applied Mathematics*, **426** (2023), 1-14, <https://doi.org/10.1016/j.cam.2023.115093>
20. **Chinedu Izuchukwu**, Simeon Reich, Yekini Shehu and Adeolu Taiwo, Strong convergence of forward-reflected-backward splitting methods for solving monotone inclusions with applications to image restoration and optimal control, *Journal of Scientific Computing*, **94** (2023), 1-31, <https://doi.org/10.1007/s10915-023-02132-6>
21. **Chinedu Izuchukwu**, Yekini Shehu and Simeon Reich, Inertial-type method for solving image restoration problems, *Soft Computing*, **27** (2023), 16571–16587, <https://doi.org/10.1007/s00500-023-08921-3>
22. **Chinedu Izuchukwu**, Simeon Reich and Yekini Shehu, Relaxed inertial methods for solving the split monotone variational inclusion problem beyond co-coerciveness, *Optimization*, **72** (2023), 607-646, <https://doi.org/10.1080/02331934.2021.1981895>
23. **Chinedu Izuchukwu**, Yekini Shehu and Christian Chibueze Okeke, Extension of forward-reflected-backward method to non-convex mixed variational inequalities, *Journal of Global Optimization*, **86** (2023), 123–140, <https://doi.org/10.1007/s10898-022-01253-w>
24. **Chinedu Izuchukwu**, Maggie Aphane and Kazeem Olalekan Aremu, Two-step inertial forward-reflected-anchored-backward splitting algorithm for solving monotone inclusion problems, *Computational and Applied Mathematics*, (2023) 42:351 <https://doi.org/10.1007/s40314-023-02485-6>
25. **Chinedu Izuchukwu**, Yekini Shehu and Jen-Chih Yao, New inertial forward-backward type for variational inequalities with quasi-monotonicity, *Journal of Global Optimization*, **84**, (2022), 441–464, <https://doi.org/10.1007/s10898-022-01152-0>
26. **Chinedu Izuchukwu**, Simeon Reich and Yekini Shehu, One-step Bregman projection methods for solving variational inequalities in a reflexive Banach space, *Optimization*, (2022), <https://doi.org/10.1080/02331934.2023.2168483>

27. Grace Nnennaya Ogwo, **Chinedu Izuchukwu** and Oluwatosin Temitope Mewomo, Inertial extrapolation method for a class of generalized variational inequality problem in real Hilbert spaces, *Periodica Mathematica Hungarica*, (2022), <https://doi.org/10.1007/s10998-022-00470-w>
28. Adeolu Taiwo, Simeon Reich and **Chinedu Izuchukwu**, Strong convergence of two regularized relaxed extragradient schemes for solving the split feasibility and fixed point problem with multiple output sets, *Applicable Analysis*, (2022), <https://doi.org/10.1080/00036811.2023.2166495>
29. Emeka Chigaemezu Godwin, **Chinedu Izuchukwu** and Oluwatosin Temitope Mewomo, Image restorations using a modified relaxed inertial technique for generalized split feasibility problems, *Mathematical Methods in the Applied Sciences* (2022), <http://doi.org/10.1002/mma.8849>
30. Grace Nnennaya Ogwo, **Chinedu Izuchukwu**, Yekini Shehu and Oluwatosin Temitope Mewomo, Convergence of relaxed inertial subgradient extragradient methods for quasimonotone variational inequality problems, *Journal of Scientific Computing*, **90** (2022), <https://doi.org/10.1007/s10915-021-01670-1>
31. **Chinedu Izuchukwu**, Yekini Shehu and Jen-Chih Yao, A simple projection method for solving quasimonotone variational inequality problems, *Optimization and Engineering*, (2022), <https://doi.org/10.1007/s11081-022-09713-8>
32. **Chinedu Izuchukwu**, Simeon Reich and Yekini Shehu, Convergence of two simple methods for solving monotone inclusion problems in reflexive Banach spaces, *Results in Mathematics*, **77** (2022), 143 <https://doi.org/10.1007/s00025-022-01694-5>
33. **Chinedu Izuchukwu**, Lateef Olakunle Jolaoso, Monday Ogudu Nnakwe, Godwin Chidi Ugwunnadi and Abdul Rahim Khan, Self-adaptive proximal contraction-type methods for generalized split feasibility problems, *Mediterranean Journal of Mathematics*, **19** (2022), <https://doi.org/10.1007/s00009-022-02114-2>
34. Grace Nnennaya Ogwo, **Chinedu Izuchukwu** and Oluwatosin Temitope Mewomo, Relaxed inertial methods for solving split variational inequality problems without product space formulation, *Acta Mathematica Scientia*, **42** (2022), 1701–1733, <https://doi.org/10.1007/s10473-022-0501-5>
35. Godwin Chidi Ugwunnadi, **Chinedu Izuchukwu** and Abdul Rahim Khan, Dynamical technique for split common fixed point problem in Banach spaces, *Computational and Applied Mathematics*, **41**, 162 (2022), <https://doi.org/10.1007/s40314-022-01859-6>

36. **Chinedu Izuchukwu** and Yekini Shehu, New inertial projection methods for solving multivalued variational inequality problems beyond monotonicity, *Networks and Spatial Economics*, **21** (2021), 291-323, <https://doi.org/10.1007/s11067-021-09517-w>
37. **Chinedu Izuchukwu**, Grace Nnennaya Ogwo and Oluwatosin Temitope Mewomo, An inertial method for solving generalized split feasibility problems over the solution set of monotone variational inclusions, *Optimization*, **71** (2022), 583-611, <https://doi.org/10.1080/02331934.2020.1808648>
38. Grace Nnennaya Ogwo, **Chinedu Izuchukwu** and Oluwatosin Temitope Mewomo, Inertial methods for finding minimum-norm solutions of the split variational inequality problem beyond monotonicity, *Numerical Algorithms*, **88** (2021), 1419–1456, <https://doi.org/10.1007/s11075-021-01081-1>
39. Yekini Shehu, **Chinedu Izuchukwu**, Jen-Chih Yao and Xiaolong Qin, Strongly convergent inertial extragradient type method for equilibrium problems, *Applicable Analysis*, (2021), <http://dx.doi.org/10.1080/00036811.2021.2021187>
40. Christian Chibueze Okeke and **Chinedu Izuchukwu**, Strong convergence theorem for split feasibility problem and variational inclusion problem in real Banach spaces, *Rendiconti del Circolo Matematico di Palermo Series 2*, **70** (2021), 457–480
41. Monday Ogudu Nnakwe, Michael Omojola and **Chinedu Izuchukwu**, An algorithm for approximating solutions of variational inequality and split fixed point problems with applications, *Computational and Applied Mathematics*, **40** Article number: 148 (2021), <https://doi.org/10.1007/s40314-021-01529-z>
42. Kazeem Olalekan Aremu, **Chinedu Izuchukwu**, Grace Nnennaya Ogwo and Oluwatosin Temitope Mewomo, Multi-step iterative algorithm for minimization and fixed point problems in p-uniformly convex metric spaces, *The Journal of Industrial and Management Optimization*, **17** (4) (2021), 2161–2180
43. **Chinedu Izuchukwu**, Akindele Adebayo Mebawondu and Oluwatosin Temitope Mewomo, A new method for solving split variational inequality problem without co-coerciveness, *Journal of Fixed Point Theory and Applications*, **22**, Article number: 98 (2020), <https://doi.org/10.1007/s11784-020-00834-0>
44. **Chinedu Izuchukwu**, Jeremiah Nkwegu Ezeora and Juan Martinez-Moreno, A modified contraction method for solving certain class of split monotone variational inclusion problems with application, *Computational and Applied Mathematics*, **39**, Article number: 188 (2020), <https://doi.org/10.1007/s40314-020-01221-8>

45. Ferdinard Udochukwu Ogbuisi and **Chinedu Izuchukwu**, Approximating a zero of sum of two monotone operators which solves a fixed point problem in reflexive Banach spaces, *Numerical Functional Analysis and Optimization*, **42** (3) (2020), 322–343
46. Hossein Dehghan, **Chinedu Izuchukwu**, Oluwatosin Temitope Mewomo, Davood Afkhami Taba and Godwin Chidi Ugwunnadi, Iterative algorithm for a family of monotone inclusion problems in CAT(0) spaces, *Quaestiones Mathematicae*, **43** (7) (2020), 975–998
47. Rajendra Pant, Christian Chibueze Okeke and **Chinedu Izuchukwu**, Modified viscosity implicit rules for proximal split feasibility and fixed point problems, *Journal of Applied Mathematics and Computing*, **64** (2020), 355–378, <https://doi.org/10.1007/s12190-020-01358-z>
48. **Chinedu Izuchukwu**, Christian Chibueze Okeke and Oluwatosin Temitope Mewomo, Systems of variational inequality problem and multiple-sets split equality fixed point problem for infinite families of multivalued type-one demicontractive-type mappings, *Ukrainian Mathematical Journal*, **71** (11) (2020), 1480-1501
49. **Chinedu Izuchukwu**, Akindele Adebayo Mebawondu, Kazeem Olalekan Aremu, Hammed Anuoluwapo Abass and Oluwatosin Temitope Mewomo, Viscosity iterative techniques for approximating a common zero of monotone operators in a Hadamard space, *Rendiconti del Circolo Matematico di Palermo Series* **69** (2) (2020), 475-495
50. Christian Chibueze Okeke, **Chinedu Izuchukwu**, and Oluwatosin Temitope Mewomo, Strong convergence results for convex minimization and monotone variational inclusion problems in Hilbert space, *Rendiconti del Circolo Matematico di Palermo Series 2*, **69** (2) (2020), 675-693
51. **Chinedu Izuchukwu**, Godwin Chidi Ugwunnadi, Oluwatosin Temitope Mewomo, Abdul Rahim Khan and Mujahid Abbas, Proximal-type algorithms for split minimization problem in p-uniformly convex metric spaces, *Numerical Algorithms*, **82** (3) (2019), 909-935, <https://doi.org/10.1007/s11075-018-0633-9>
52. Christian Chibueze Okeke and **Chinedu Izuchukwu**, A strong convergence theorem for monotone inclusion and minimization problems in complete CAT(0) spaces, *Optimization Methods and Software*, **34** (6) (2019), 1168–1183
53. Kazeem Olalekan Aremu, Lateef Olakunle Jolaoso, **Chinedu Izuchukwu** and Oluwatosin Temitope Mewomo, Approximation of common solution of finite family of monotone inclusion and fixed point problems for demicontractive multivalued mappings in CAT(0) spaces, *Ricerche di Matematica*, **69** (1) (2019), 13-34

54. **Chinedu Izuchukwu**, Christian Chibueze Okeke and Felicia Obiageli Isiogugu, Viscosity iterative technique for split variational inclusion problem and fixed point problem between Hilbert space and Banach space, *Journal of Fixed Point Theory and Applications*, **20** (4) (2018), 1-25

CONFERENCES, RESEARCH SCHOOLS/VISITS AND WORKSHOPS

1. Conference Organizer, *Ebonyi State University*, Abakaliki – Apr 29–30, 2025
2. Invited Guest Speaker, Norwegian University of Science and Technology, Trondheim – Jan 10, 2025
3. Invited Speaker for a Two-Day Workshop on Recent Developments in Mathematical Sciences Dated: October 30-31, 2024
Organizers: Department of Mathematical Sciences, University of South Africa, Johannesburg.
4. Invited Speaker for a mini-conference on Optimization in Practical Scenarios: Real-World Applications and Beyond
Date: October 14-15, 2024
Organizer: Department of Mathematics, Sefako Makgatho Health Sciences University, Pretoria.
5. Research Visit to the School of Mathematics & Physics, Queen’s University, Belfast, **United Kingdom**, 20 May 2024 - 14 July 2024.
Project Title: Corrected relaxed inertial algorithms for variational inequalities with applications to traffic models.
Host: Dr. Salissou Moutari.
6. Weekly Seminar, School of Mathematics, University of the Witwatersrand, **South Africa**, April 2024.
Presentation: *Fractional Differential Equations: Basics.*
7. Functional Analysis and Operator Theory South Africa workshop, AIMS **South Africa**, Muizenberg, Cape Town, March 2024.
Presentation: *Hadamard Space and Monotone Operator Theory.*
8. Research Visit to the Center for Fundamental Science, Kaohsiung Medical University (KMU), **Taiwan**, 02 December 2023 - 01 January 2024.
Project Title: Relaxed inertial algorithms for optimization problems
Host: Professor Jen-Chih Yao and Professor Ching Feng Wen

9. Research Visit to the Department of Mathematics and Statistics, University of Port Harcourt, Port Harcourt, **Nigeria**, 15 December 2022 - 10 February 2023.
Project Title: Fixed Point and Optimization Algorithms.
Host: Professor Jeremiah Nkwegu Ezeora.
10. Weekly Seminar, School of Mathematics, University of Witwatersrand, **South Africa**, September 2022.
Presentation: *Recent Developments in Projection-type Algorithms for Solving Variational Inequalities.*
11. Seminar, Department of Mathematics and Applied Mathematics, Sefako Makgatho Health Sciences University, **South Africa**, September 2022.
Presentation: *Recent Developments in Projection-type Algorithms for Solving Variational Inequalities.*
12. Center of Excellence in Mathematical and Statistical Science (CoE-MaSS) Annual Research Meeting, Future Africa Campus, University of Pretoria, **South Africa**, October 21-24, 2019.
Presentation: *Optimizing production cost and profits.*
13. 7th Heidelberg Laureate Forum (HLF), Heidelberg, **Germany**, September 22-27, 2019.
Presentations: (1) *Iterative algorithm for a finite family of monotone inclusion problems in Hadamard spaces.* (2) *Talking to young researchers on my PhD work.*
14. South African Numerical and Applied Mathematics Conference (SANUM), University of Pretoria, **South Africa**, March 27-29, 2019.
Presentation: *Proximal-type algorithms for split minimization problem in p -uniformly convex metric spaces.*
15. Topology, Algebra, Analysis and Geometry Conference (TAAG), UKZN, **South Africa**, September 16-19, 2018.
Presentation: *Convergence results for minimization problems and generalized hemicontractive mappings in p -uniformly convex metric space.*
16. 5th Annual International Conference On Mathematical Analysis and Optimization: Theory and Applications (ICAPTA), University of Lagos, **Nigeria**, March 11-17, 2018.
Presentation: *Convergence results for minimization problems and generalized hemicontractive mappings in p -uniformly convex metric space.*
17. College Postgraduate Research Day, College of Agriculture, Engineering and Science, **UKZN**, October 26, 2017.
Presentation: *Strong convergence theorems for monotone inclusion problems with applications in Hadamard spaces.*
18. Graduate Foundation Programme in Mathematics at the National Mathematics Center, Abuja, **Nigeria**, January 12- 2015-May 1, 2015.

Courses: *Ordinary Differential Equations, Abstract Algebra, Linear Algebra, Real Analysis, Complex Analysis.*

PUBLIC OUTREACH & ENGAGEMENT

1. Writing the article titled “Academic Insight on the Mathematics Literacy Programme” to help students upgrade from mathematics literacy to Grade 12 mathematics. 2019.
<https://ukznextendedlearning.com/2019/02/28/academic-insight-on-the-maths-literacy-programme/>
2. March for Science, Durban Central, South Africa, 2019.
3. Voluntary teaching and tutoring of undergraduate mathematics courses at Ebonyi State University, Nigeria, 2014-2016.
Courses: Algebra and Matrices, Calculus and Trigonometry, Mathematical Analysis, Metric Space Topology, General Topology and Linear Functional Analysis.

PROFESSIONAL BODIES AND SOCIETIES

Member, South African Mathematical Society (SAMS), 2022-Present.

COLLABORATORS (Selected 30)

1. Prof. (Emeritus) Simeon Reich (The Technion--Israel Institute of Technology, **Israel**)
2. Prof. (Emeritus) Jen-Chih Yao (National Sun Yat-sen University, **Taiwan**)
3. Prof. Elisabeth Sophia Köbis (Norwegian University of Science and Technology, **Norway**)
4. Prof. Safeer Khan (North Carolina Agricultural and Technical State University, **USA**)
5. Prof. Yunier Bello Cruz (Northern Illinois University, **USA**)
6. Prof. Juan Martinez-Moreno (University of Jaén, **Spain**)
7. Prof. Yekini Shehu (Zhejiang Normal University, **China**)
8. Prof. Xiaolong Qin (Zhejiang Normal University, **China**)
9. Prof. Shengda Zeng (Yulin Normal University, **China**)
10. Prof. Qiao-Li Dong (Civil Aviation University of China, **China**)
11. Prof. Abdul Rahim Khan (King Fahd University of Petroleum and Minerals, **Saudi Arabia**)
12. Prof. Jeremiah Nkwegu Ezeora (University of Port Harcourt, **Nigeria**)
13. Prof. Felicia Isiogugu (University of Nigeria, **Nigeria**)
14. Prof. Oluwatosin Temitope Mewomo (UKZN, **South Africa**)
15. Prof. Mujahid Abbas (University of Johannesburg, **South Africa**)
16. Prof. Rajendra Pant (University of Johannesburg, **South Africa**)

17. Prof. Maggie Aphane (Sefako Makgatho Health Sciences University, **South Africa**)
18. Dr. Hao-Ren Yao (National Institutes of Health, Bethesda, MD, **USA**)
19. Dr. Monday Nnakwe (Auburn University, **USA**)
20. Dr. Timilehin Opeyemi Alakoya (Queen's University, **United Kingdom**)
21. Dr. Salissou Moutari (Queen's University, **United Kingdom**)
22. Dr. Lateef Jolaoso (University of Southampton, **United Kingdom**)
23. Dr. Soumitra Dey (Technical University of Munich, **Germany**)
24. Dr. Emeka Godwin (Griffith University, **Australia**)
25. Dr. David Amilo (Near East University, **Cyprus**)
26. Dr. Godwin Ugwunnadi (University of Eswatini, **Eswatini**)
27. Dr. Chinwendu Emilian Madubueze (Joseph Sarwuan Tarka University, **Nigeria**)
28. Dr. Ojen Narain (UKZN, **South Africa**)
29. Dr. Bertin Zinsou (Wits, **South Africa**)
30. Dr. Grace Ogwo (Wits, **South Africa**)

TEACHING

➤ **University of the Witwatersrand, South Africa.**

Role: Teaching, coordinating tutorial sessions, marking, consultations, and other administrative work.

Courses:

MATH 3004-Complex Analysis III (2022, 2023, 2024).

MATH 2014-Algebra II (2023 Semester One).

MATH 2026-Calculus II (2023 Semester One).

MATH 2001-Basic Analysis (2025 Semester One).

MATH 1034-Algebra I (2023 Semester One, 2024 Semester One).

MATH1041-Algebra (Auxiliary MATH) (2023 Semester Two, 2024 Semesters One and Two, 2025 Semester One).

➤ **Durban University of Technology, South Africa.**

Role: Responsible for assisting students, coordinating teaching and tutorial sessions, and marking tests and exams.

Courses: Mathematics I-III (Undergraduate Engineering Mathematics), 2019-2020.

➤ **University of KwaZulu-Natal, South Africa.**

Role: Responsible for assisting students, coordinating teaching and tutorial sessions, and marking tests and exams.

Courses:

MATH 131-Algebra (2017 and 2019 Semester One).

MATH 140- Integral Calculus and Linear Algebra (2016 Semester Two).

MATH 141-Calculus (2016 and 2017 Semester Two).

MATH 142-Dynamics (2018 and 2019 Semester Two).

MATH 238-Vector Valued Functions and Multiple Integrals (2018 Semester One).

ADMINISTRATION

- **Member (School Representative, Alternate)**, Graduate Studies Committee of the Faculty of Science, University of the Witwatersrand, South Africa, 2024.
- **MyLab MATH Coordinator**, School of Mathematics, University of the Witwatersrand, South Africa, 2024 (Semester 1).
Role: Set up quizzes and homework in Algebra for all the first-year MATH Major Students.
- **Committee Member:** School of Mathematics Task Team 1. The Head of School (Prof. Simon Mukwembi) and I prepared an application for an nGAP lecturer in 2024. We are waiting for the outcome.
- **Committee Member:** Pseudo panel for the School of Mathematics, to internally review the NRF postgraduate applications, 2024 (29-Aug to 6-Sept).
- **Facilitator**, University Capacity Development Programme, College of Agriculture, Engineering and Science, UKZN, 2018- 2019.
Role: Set up quizzes for all the first-year engineering mathematics courses to improve the teaching and learning process of the college concerning first-year students.
- **Instructor**, South African Mathematics Foundation (SAMF) Olympiad Training Programme, Sibusisiwe Comprehensive High School Center, KwaZulu-Natal, South Africa.
Role: Give training in Grade 10 Mathematics (2017), Grade 11 Mathematics (2018, 2019), and Grade 12 Mathematics (2019) for the South African Olympiad competitions.
- **Vice President**, National Association of Industrial Mathematics and Applied Statistics Students (NAIMASS), Ebonyi State University Chapter, Nigeria, 2011-2012.

EXAMINATION (EXAM, DISSERTATION AND THESIS)

1. External examination for APM4805 (Mathematics of Optimization Theory) at the University of South Africa (Examinations for January/February 2023, June/July 2023, and January/February 2024).
2. External Moderation for APPM4057 (Computational Differential Equations)-Honours Students' research paper presentation at the School of Computer Science and Applied Mathematics, Wits University (2022 and 2023).

PROGRAMMING

- MATLAB
- Python

REFEREES

1. Professor (Emeritus) Simeon Reich
Faculty of Mathematics, The Technion--Israel Institute of Technology, 32000 Haifa, Israel.
Email: sreich@technion.ac.il

2. Professor (Emeritus) Jen-Chih Yao
Department of Applied Mathematics, National Sun Yat-sen University, Kaohsiung, Taiwan.
Email: yaojc@math.nsysu.edu.tw

3. Professor Oluwatosin Temitope Mewomo
Department of Mathematics, Tarleton State University, Stephenville, Texas, United States.