

DUT Electrical Power Engineering Staff Profile (EPE)



Prof Musasa Kabeya (Acting HoD): Prof. Musasa Kabeya is the Acting Head of the Department of Electrical Power Engineering at the Durban University of Technology. With over 10 years of experience in academic leadership, teaching, and advanced power systems research, he is committed to advancing engineering education and research excellence within the department. He holds a PhD (Eng) in Electrical Engineering from the University of Pretoria and a Master's degree in Power Engineering. His academic and research expertise focuses on modern power systems, particularly in areas critical to Africa's energy transition. Prof. Kabeya has published widely on smart grid technology, renewable energy integration, and power system stability. He is a member of the South African Institute of Electrical Engineers (SAIEE) and a registered Engineer (C-Eng) with the Engineering Council of South Africa (ECSA). Before joining academia full-time, he gained valuable industry experience as a consultant in the mining sector, in addition to serving as a part-time lecturer and research fellow. This combination of industry and academic experience informs his practical, solutions-driven approach to teaching and research. His research interest is in Smart Grid Stability, Renewable Energy Integration, High Voltage Direct Current (HVDC) transmission, Electrical Machines and Drives. His vision is to strengthen the department's academic rigor while expanding research innovation and industry collaboration. He aims to equip students with both strong theoretical foundations and practical competencies to address Africa's evolving energy challenge. **Email: musasak@dut.ac.za, Extension no.: 2745, Office No: S7 306**



Dr. Nelson Chetty (DHoD): graduated with a B.Tech. degree and M. Eng. degree from the Durban University of Technology (DUT), and graduated with a PhD at the University of Johannesburg. He began his career at Technikon Natal in 1991, which merged to form DUT. Between 1991 and 2007, he worked as a technical assistant, technician, and senior technician in the Electrical Power Engineering Department. In 2008, he transitioned to academia as a lecturer in the department. His research interests include renewable energy technologies, distributed generation, power system

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control, and the application of optimisation control techniques in power systems. ORCID iD: <https://orcid.org/0000-0002-2044-9273> ResearchGate: Profile ID: Nelson Dhanpal Chetty. **Email:** nelsonc@dut.ac.za, **Extension no.:** 2639, **Office No:** S7 Level 0.



Dr Thokozile F Mazibuko (DHoD): graduated from Tshwane University of Technology with an Mtech in the Electrical Engineering discipline. She is currently a Lecturer at the Durban University of Technology's Department of Electrical Power Engineering. Her areas of research interest include power optimization, power electronics, renewable energy, and artificial intelligence. **Email address:** thokozilem1@dut.ac.za; **office number:** S7 309; **extension number:** 2497



Prof Evans Ojo: received his M.Sc. and Ph.D. degrees in the Discipline of Electrical, Electronic, and Computer Engineering, at the University of KwaZulu-Natal, Durban, South Africa, in 2011 and 2017, respectively. He is currently an Associate Professor in the Department of Electrical Power Engineering at Durban University of Technology. He has published many journal articles, conference papers, and two book chapters. He has graduated and still supervises many master's and doctoral students. His research interests include the dynamic behaviour of power-line conductors, finite-element analysis, and renewable energy. He is a reviewer for several local and international journals. He is an accomplished academic and researcher and he has been involved in curriculum development. He has served on several committees of which he is a member of the Departmental Research Committee. He is currently the Director of the DSTI-DUT Space Science & CNS Research Programme at the Durban University of Technology. **Email:** evanso@dut.ac.za, **Extension no.:** 2952, **Office No:** S7 320

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Dr. Mbulelo S. P. Ngongoma [B.Sc. Elec. Eng. Hons (UKZN); M.Sc. Eng. Elec. Cum Laude (UKZN); D.Eng. (DUT); M.B.A Cand. (DUT); SAIMC NPC, Cand. Eng. (ECSA)] is a young but increasingly influential scholar whose work bridges advanced engineering research and real-world industrial application. With more than eight years of combined academic and industrial experience, he has developed a distinctive profile as both an innovator and educator. In industry, he has occupied junior to mid-senior engineering positions, gaining extensive practical exposure that now informs his research agenda and teaching philosophy. Dr. Ngongoma has established a growing research record driven by practical, solution-oriented inquiry with immediate socio-economic relevance. His work spans power electronics, digital sensing, and intelligent systems, with a particular emphasis on translating theoretical concepts into deployable technologies. He is currently supervising approximately ten MEng and DEng postgraduate candidates, contributing to the development of the next generation of engineering researchers and industry leaders. In recognition of his excellence in teaching and mentorship, he was awarded the Lecturer of the Year Award (2025) in the Department of Electrical Power Engineering. A defining feature of Dr. Ngongoma's career is his strong innovation traction. He is the inventor of multiple patents, reflecting a sustained commitment to applied research and technology development. His patented innovations, including advancements in inline water monitoring and intelligent grading systems, are designed for immediate deployment in industry. Several newly invented products arising from his research are currently being trialled in industrial environments, demonstrating both technical viability and commercial potential. In recognition of his innovation impact, he has been nominated for the 2026 Millennium Technology Innovation Prize for his work on the inline greywater grading valve. He is also actively developing additional patents currently in the pipeline, further strengthening his innovation portfolio. His core research interests include Power Converters, the Internet of Things (IoT), Embedded Systems, Precision Agriculture, Artificial Intelligence Applications, Sustainable Water and Energy Systems, and Condition Monitoring. Through the integration of advanced analytics, smart sensing, and reliability engineering, Dr. Ngongoma continues to position his work at the intersection of technological advancement and societal impact. **Email: mbulelom@dut.ac.za, Extension no.: 2629, Office No: S7 321, ORCID ID: <https://orcid.org/0000-0001-6807-2279>**

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Dr Dwayne Reddy (Lecturer): has been a faculty member of the Durban University of Technology since 2008. He obtained his PhD in Applied Science (Physics) from the DUT. He also completed his M-Eng and B-Tech at DUT. His research interests lie in renewable energy generation, ranging from the development of energy conversion devices, advanced photovoltaic material fabrication and characterization, and renewable energy system design and implementation. He can be contacted by **Email: dwayner@dut.ac.za, office No: S7312, Extension No: 2878**



Dr Abayomi Abadeyi (Snr. Lecturer): earned his Higher National Diploma in Electrical and Electronics Engineering Technology from Kwara State Polytechnic, Ilorin, Nigeria, in 2006. Continuing his academic journey at DUT, he obtained both his Master of Engineering and Doctor of Engineering degrees in Electrical Engineering in 2017 and 2021, respectively. His academic achievements are further highlighted by the prestigious scholarships he received from the National Research Foundation (NRF) and the European Union Erasmus+ program. These scholarships enabled him to study at the University of Valladolid, Spain, and the University of Porto, Portugal, in 2018 and 2019, where he both earned a diploma. With a robust academic and professional background, Dr. Adebiyi previously served in the Department of Electrical and Information Engineering (EIE) at Covenant University, Nigeria, before joining DUT. His research interests include power systems, renewable energy, grid optimization, and engineering education. He has made significant contributions to these fields through his publications in Scopus-indexed journals and conference proceedings. Beyond his research, He is dedicated to mentoring and supervising postgraduate students, playing a vital role in shaping the future of engineering professionals. His commitment to education and research continues to make a meaningful impact within the academic community. **Email: abayomia@dut.ac.za, office No:S7 312, Extension No:2472**

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Dr. Mlungisi Ntombela (Lecturer) completed his Master of Engineering (M.Eng.) degree in Electrical Engineering at the Durban University of Technology (DUT) in 2022 and earned his Doctor of Engineering (D.Eng.) degree in 2024. He is a Certified Electrical Engineer and holds the highly regarded Government Certificate of Competency (GCC – Factories), a nationally regulated professional qualification in South Africa. The GCC certifies an engineer's legal authority and technical competence to serve as a responsible engineer in industrial and utility sectors. It reflects advanced expertise in electrical and mechanical systems, regulatory compliance, occupational health and safety, and risk management, and is earned through rigorous examinations and verified industry experience, making it a significant professional achievement. This credential positions Dr. Ntombela among a select group of engineers legally recognized to oversee complex industrial operations and ensure compliance with national safety legislation. He has developed strong expertise in maintenance, operations, and the management of large-scale electrical and mechanical infrastructure, with industry experience that informs his practical and application-driven research approach. As an emerging academic, he has established a growing research profile, reflected by a Research Interest Score of 189.4, 244 citations, and an h-index of 7. His research interests include Artificial Intelligence applications in power systems, optimization algorithms, power loss minimization, power quality improvement, electric vehicle integration, and advanced power system analysis. <https://orcid.org/0000-0001-6428-0257>. Email: MlungisiN3@dut.ac.za, Office No: S7 310



Dr Kabulo Loji (Lecturer): is an academic and professional electrical engineer with over 30 years of combined industry and teaching experience across all levels of education. Since 2006, he has served in the Faculty of Engineering and the Built Environment, Department of Electrical Power Engineering, at DUT. Dr Loji holds a PhD in Electrical and Electronic Engineering from the University of Johannesburg (UJ), an MSc in Electrical Engineering from the University of KwaZulu-Natal (UKZN), a BTech in Electrical Power Engineering from the Vaal University of Technology (VUT), and a four-year

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degree with obtained with Distinction from the Institut Supérieur des Techniques Appliquées (ISTA). Prior to his academic career, he spent approximately 9 years in industry, gaining extensive field and design expertise in electrical installations, electrical machines, plant maintenance, and electrical protection, with particular specialisation in Lightning Protection Systems (LPS). He currently chairs the Departmental Research Committee and is actively engaged in teaching, learning, and quality assurance at both departmental and faculty levels. His research focuses on Power Systems Analysis, Operation, and Control for Stability and Reliability Enhancement, with emphasis on Optimal Integration of Renewable Energy Resources, as well as Engineering Education, particularly the advancement of deep learning in engineering. He constantly evaluates and designs innovative teaching and learning strategies that improve student engagement and problem-solving abilities. He has participated in numerous national and international conferences, maintains a growing publication record, serves as a reviewer for reputable journals and conferences, supervises postgraduate research, and holds membership in leading professional engineering and academic societies (IEEE, PES, USA, SASEE, IAFOR, EI.). Visibility and contacts: **ORCID ID:** <https://orcid.org/0000-0002-7864-7408>, **Google scholar:** [Dr. Kabulo Loji - Google Scholar](#), **e-Mail:** kabulol@dut.ac.za **Ext:** 2994, **Office:** S7/Level 3 office 305 311



Dr Sindisiwe Cindy Malanda (Lecturer): Sindisiwe Cindy Malanda is a Lecturer in the Department of Electrical Power Engineering, Durban University of Technology. She received the Diploma in Electrical Power Engineering, Mangosuthu University of Technology; Bachelor of Engineering Technology (BTech) and Master of Engineering (MEng) degree, Durban University of Technology. Her research interest is in the area of Power Electronics, Converters, HVdc power transmission, and Electric Vehicles. She is a registered Candidate Technologist with the Engineering Council of South Africa. She has a Doctorate Degree from Tokyo University of Marine Science and Technology (TUMSAT).

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Dr Nomihla W Ndlela (Lectuer): Obtained a B. Tech (Eng) degree in Electrical Power Engineering from Durban University of Technology in 2018. In 2022, she completed her Master of Engineering (M.Eng.) degree in Electrical Engineering from Durban University of Technology (DUT), South Africa. Her research primarily focused on FACTS, HVDC, Power Loss Minimization, power interconnection, and power exchange. She is now studying for her DEng. degrees in the Department of Electrical Power Engineering at Durban University of Technology in South Africa. She is primarily interested in Transmission Network Expansion planning, Optimization Algorithms, Renewable energy, and Power System Analysis. **Email: nomihlan@dut.ac.za, Office No: S7 313**



Mr. Mocketjema C Leoaneka (Lecturer): An accomplished Electrical Engineer with extensive academic and professional experience in Electrical Power Systems and Telecommunication Engineering. Holding a Master's degree in Electrical Engineering with a focus on the performance of numerical distance protection relays in heavily series compensated networks, I have a strong foundation in both theoretical and practical aspects of electrical engineering. Currently serving as a Lecturer at the Durban University of Technology, I bring over a decade of teaching and industry experience, supervising projects, and delivering courses in Electrical Protection, Circuit Analysis, and Industrial Electronics. My technical expertise extends to providing engineering solutions, system modeling, and protection relay testing. A recipient of multiple awards and recognitions, I am also a published author in the field of power system protection and optimization techniques. **Email: mocketjemal@dut.ac.za, Office No: S7 308.**

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Miss Namhla Mtukushe (Lecturer): holds the position of Deputy Administrative leader at the Space Science Research Centre. She possesses a Master's degree (MEng) in Electrical Power Engineering. Her areas of expertise and interests include; ocean energy, hydrokinetic turbines, smart grids, renewable energy, and power systems stability and control. **Email: namhlam@dut.ac.za, Extension no.: 2970, Office No: S7 323**



Miss Nomhle Loji (Lecturer): A Doctoral candidate in EPE at DUT, where she graduated with a M-Eng and B-Tech in the same field. She is registered as an assessor and moderator, with a passion for engineering education consultancy and mentorship programs. A seasoned Project Engineer, previously involved in Transmission Capital Projects, proficiency encompassing technical auditing on substations to compile refurbishment proposals, performing site visits and regular reporting on project progress at the design & planning management meetings, implementing project engineering expertise for successful completion of projects. Her research interests include power systems, renewable energy, energy storage systems, energy management, smart grids, and engineering education.. **Email: nomhlel@dut.ac.za, Extension no.: 2069, Office No: S7 319.**



Mr Rodney Stops (Lecturer): lecturer at DUT since 1997. He has a M-Eng from DUT, but started his studies in 1988 with a N-Diploma at Technikon Natal, followed by a National Higher Diploma and BTech. He is a Certified Energy Manager and Certified Measurement and Verification Professional. He has served on both the SAIEE and ICMEE KZN committees. He is passionate about engineering education, energy efficiency, and energy management. He is a SM of the SAIEE. **Email: rodneys@dut.ac.za, Extension no.: 2536, Office No: S7 318**

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Mr Khulekani Ntuli (Technician / seconded Lecturer): He earned his N- Diploma (ND), Betch), and M-Eng Degree from DUT Technology in 2016, 2018, and 2023, respectively. From November 2015 until July 2017, he worked as a technician in training at Eskom Transmission Empangeni. He worked as a laboratory tutor at Durban University of Technology from March 2021 until November 2022. He then worked as a lecturer assistant at Mangosuthu University of Technology from July 2022 to December 2022. He worked as a part-time lecturer at Damelin Technical College from March 2021 to December 2022. From March 2023 to July 2023, he worked as a lecturer at Mfolozi College. Mr. Ntuli is presently a Doctoral of Engineering (PhD) candidate at Durban University of Technology. His research interest includes wind energy conversion system (WEC), Electrical machines, Power Systems, and Renewable energy. **Email: welcomen1@dut.ac.za, Office No: S7 314**



Mr Vusani Nemudzivhadi (Snr. Technician): In 2017 and 2018, he obtained a National Diploma and a Bachelor's Degree in Electrical Power Engineering from Vaal University of Technology (VUT). pursuing his M-Eng in Electrical Power Engineering at VUT. As a young South African in this field, his interest is developing a techno-economic technique for a grid-tied PV integrated power system using renewable energy, as well as advancing power generation using renewable energy systems. he has four years of experience as an Electrical Maintenance Technician and one month as the Unit 1 to 3 Acting Supervisor at Eskom (Matimba power station), six months as a part-time junior lecturer at Rostec Technical FET college, three years as a Mathematics Tutor at Vaal University of Technology, and five months as a Junior Electrical Engineer in training at Amasted Foundry Solution South Africa. Throughout his industrial and academic experience, he has taken on additional work and duties because he understands how important his performance is to the team's success. his achievements and skills include the following: Technical Service Awarded: Excellence in Technical Services Support in 2021, 2022, 2023, and 2024 in the Department of EPE at DUT. Certificate of Merit: Advanced Electrical Training, OHSA Introduction, Basic Fire Fighting, First Aid Levels 1 and 2, Design Thinking Certificate, Best Performing Unit 3,

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Eskom (Matimba Power Station) in 2017 and 2018, Best Learner in Grade 11, Best Learner in Grade 10, and Productive Teamwork Software: Microsoft Office (Word, Excel, and PowerPoint) and engineering software (Homer, Rectic Master, Dig-silent, MATLAB simulation, Lab view, SAP, and SIMetrix). He is passionate about mentoring, and guiding students through their academic journey, training them to practice according to safety and health regulations, and preparing them to become leaders in their respective fields. **Email: vusanin@dut.ac.za, Extension no.: 2221, Office No: S7 Level 2.**



Mr Lindelani Mkhize (Technician): obtained a N-Diploma and a BTech at DUT in 2017 and 2019, respectively. He worked as a Technician at Ubuntu EAG Trading cc from June 2016 to June 2018. He also worked as a Laboratory tutor at Durban University of Technology from February 2019 to June 2019. He later worked as an Engineer in Training at Gati Consulting Engineers from July 2021 to June 2022. From August 2022 to May 2023, he was employed as a part-time Lecturer at Damelin Private College. He is currently enrolled for an Honours Degree at Durban University of Technology. **Email: lindelanim2@dut.ac.za, Extension no.: 2221, Office No: S7 Level 0**



Mr Ayanda Ntombela (Technician): obtained a N-Diploma in Electrical Engineering (L/C) in the stream of Process Instrumentation and Control during the year 2012. He worked as a Technician at PFK from 2010 to 2014. He then worked as a Technician at Altech UEC from 2014 to 2015. He later spent 7 years between 2016 to 2023 working as a Technician at Dortech, a company in the services of Door Automation Controls and Access control. **Email: ayandan10@dut.ac.za, Extension no.: 2081, Office No: S7 Level 1.**

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Mr Sfiso Zikhali (Technician): B-Tech in 2022 and a Diploma in 2015, currently enrolled as a student at DUT for Bachelor of Technology Honours in EPE where his focus is on fault detection and classification techniques for Medium Voltage underground cable. He has 10 years of working experience in the industrial and academic sectors. During his five years in the electrical distribution networks, he was exposed to new substation construction, switchgear/control room upgrades, and reticulation projects that sum up 21 projects located in different provinces of South Africa and outside the border. Mr Zikhali also has a passion for teaching and learning. He has also accomplished five years of teaching experience in the TVET sector. He taught the Nated subjects from N1 to N6, including Engineering Mathematics, Electrical Trade Theory, Industrial Electronics, Electrotechnics and Engineering Science. The combination of industrial and academic experience played a significant role in the position held at the uMgungundlovu TVET college as the Electrical Engineering Facilitator for the skills programme for Apprentice (Trade) Students in 2023. **Email: sifisoz@dut.ac.za, Extension no.: 2081, Office No: S7 Level 1.**



Mrs. Regina Naidoo (Secretary): is a developed Administrator with many years of experience in the posts of Secretary, Hr officer, Faculty officer, Research Administrator, and currently the Secretary for Electrical Power engineering. Her qualifications are a National Diploma in Business Administration and a BTech Degree in Operational Management. Her most significant capability is to multitask and to possess strong organizational skills as per the university processes and procedures. The soft skills of the secretary in the department entail engaging with students with guidance on their career path, interpersonal interactions with students promoting active listening, and managing student and staff communications with diplomacy and discretion in a professional manner. **S7 L300, Tel No: 031 373 2062, Email Address reginan@dut.ac.za**

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Miss Musa Mbonambi (Research Admin): Earned a master's degree in administration and information management from the Durban University of Technology, South Africa. She also acquired a Btech and National Diploma in Office Management and Technology. She is the former SRC Treasurer General of the DUT, she is passionate about working with people. She strives to lead with honor and Integrity. She currently serves as the Research Administrator of the Electrical Power Engineering department. **Email: Musam2@dut.ac.za, Extension no.: 2062, Office No: S7 303**



Miss Snenhlanhla Ngcobo (Research Administrator): Business & Information Management Graduate under the DUT Faculty of Accounting & Informatics. She is currently the Office Administrator of the DUT-DSI Space Science & CNS Research Centre, the centre is a multi-discipline initiative with the goal of training postgraduates students in both masters and doctorates in areas such as Satellite Communications; Navigation and Surveillance (CNS); Satellite Fixed and Mobile Communications; Satellite and Platforms Space Segment and Engineering; Multipurpose GEO Spacecraft with Communications, Meteorological, and Navigation (GNSS) Transponders; Satellite Earth and Meteorological Observation; Satellite GIS; Ground Segment and Infrastructures; Satellite Materials and Electronics; SATFM; Satellite SCADA or M2M; DVB-RCS; Satellite E-solutions; Stratospheric Platform Systems (SPS) for CNS: Airships and Aircraft; ICT and Data Processing; Intelligent Transport Systems (ITS); Augmentation of GNSS (GPS and GLONASS) Solutions; Logistics; RFID; Surface and Space Alternative Energy; other Radio and Space Technologies and Techniques for Modern Transport Systems; and future The Research Enhancement sector provides, proposes, and implements several projects for the South African government and African continent to develop practitioner competence in the above research domains. Professional practitioners and experts from diverse fields drive all Projects Enhancement sector research, projects, and innovations. The center helps postgraduates fund international/local conferences and gives monthly research stipends. **Email: sinethemban3@dut.ac.za, Extension no.: 2651, Office No: S7 Level 0 (SPACE SCIENCE)**

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