



PRESIDENT'S MESSAGE

Dear SAIAE Community,

The past year has been tough, however I believe it has taught us all how resilient we are. We have also learnt that a change in the way we do things is not necessarily bad. More pleasing, is that according to the latest trade figures, South Africa's agricultural exports recorded its second highest level in 2020. We should therefore consider ourselves fortunate as Agricultural Engineers to be associated with one of the industries that thrived through the COVID-19 pandemic.

The term for the current SAIAE Council is coming to a close and the purpose of this communique is highlight some of the challenges and successes this Council experienced over the past 2 years, as well as to inform members of the election process.

Financial

The SAIAE finances were in a perilous state when this Council assumed duties in 2019 and consumed much of the time of the Executive Leadership. A significant part of the problem stemmed from an oversight in our bookkeeping that persisted over a number of years, which resulted in the SAIAE accumulating a sizable tax liability. This meant that the Institute was unable to obtain a tax clearance certificate, which was required by many members wishing to settle their membership fees. Some conflicting advice was received regarding the best way to move forward and Council eventually decided to open a Non-Profit Company to assist with the invoicing backlog, while also making arrangements to minimize our tax liability. Our tax liability is currently being discussed with the relevant authorities and we are hopeful that it will be reduced.

I can also report that the financial statements for the 2018/2019 and 2019/2020 financial years are in the process of being finalized and will be tabled at the next AGM.

Invoicing

I can report that we are now up to date with our invoicing and urge all members to settle their fees accounts urgently. A special mention goes out to Mr Sarel De Wet PrEng, who worked selflessly and tirelessly last year, to resolve the bulk of our invoicing issues. Baie Dankie Sarel!

We ask members to note that we will be following up on arrear fees. Should there be no arrangements made with the SAIAE regarding outstanding fees, we may resort to informing the Engineering Council of South Africa, who may not grant discounts to their fees as a consequence. Please note that the new SAIAE Banking details are South African Institute for Agricultural Engineers NPC **ABSA (0632005) Cheque Account No. 409 680 8397**

Please add the SAIAE Administrator email to your safe email list to ensure you receive all correspondence pertaining to your membership.

ECSA

We were informed by many members that the Engineering Council of South Africa (ECSA) Continuing Professional Development (CPD) database was not up to date and many struggled to log their professional development as a number of SAIAE accredited events were not posted. I am pleased to report that this has now been resolved and CPD events held up to the end of 2019 are reflected on the ECSA database. The CPD points for the Webinars held last year are in the process of being uploaded.

I also wish to inform that SAIAE has been formally recognized by ECSA as a Licensed Body for Continuing Professional Development (CPD). The recognition of SAIAE as an ECSA CPD Licensed Body is in line with the prescribed Rules on Continuing Professional Development (Board Notice 86 of 2017) and the Standard for Continuing Professional Development (ECPD-01-STD). This enables SAIAE to continue appraising and accrediting CPD events.

Symposium & Webinars

Our biennial symposium that was supposed to be held in Limpopo last year (2020) was postponed due to COVID-19. The Limpopo Branch put in considerable effort towards planning and securing various Keynote and other speakers for this event and were disappointed that the event could not proceed. Council has made a decision to postpone this event until 2022.

Seeing that the Symposium was being postponed, the Free State Branch were quick to be innovative and rolled out a series of Webinars on Solar Photovoltaic Energy. They were quickly followed by the Mpumalanga and Limpopo Branches and a number of successful events followed. Through using our Zoom platform it became evident that local Branch activities could be broadcast throughout the country ensuring that all our members could attend. I would like to thank all of those involved in organizing and co-ordinating these events. I am sure I speak for many members who appreciated the opportunity to continue learning and developing, in a year where many other activities ground to a halt.

A new series of Webinars will be rolled out shortly and will be communicated in due course.

CPD Event

The SAIAE has also been successful in applying for funding from the Pan African Society of Agricultural Engineers (PASAE) to develop CPD Training Courses. We are grateful to PASAE for their assistance in this regard. I am pleased to announce that two multi-day CPD training events have been approved and are tentatively scheduled to be held in March and July this year. The events are:-

- Water Resources Planning in Agriculture facilitated by Mr Gerald De Jager, &
- Energy Management Opportunities in Agricultural Applications facilitated by Mr Louis Lagrange

Further details on the proposed courses will be communicated in the coming weeks.

Website and Social Media

Our Website and Social Media handles are constantly being updated. We urge members to follow us on [Facebook](#) and [LinkedIn](#) for interesting updates, articles and announcements. We welcome feedback and any suggestions for improvements and deficiencies. Please contact our Business Manager directly for further feedback on admin@saiae.co.za.

Nomination of New SAIAE Council

COVID 19 has also impacted the normal process for election of the new SAIAE Council. As per the SAIAE Constitution, the new President must be selected from the existing Council – profiles of each council member are included at the end of this publication. In order to streamline the voting process, members are requested to cast their nominations for President and Normal Council members on the following link by **12 March 2021, 16h00:**

https://forms.office.com/Pages/ResponsePage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAO_bhEgWhUNE1SVUsxUjVKV0RLVUg0MTJGRjRjNDhCQy4u

The Branch Chairpersons nominated in the six (6) branches will automatically be included in the new council. Mr Thabo Mavundza and Mr Andrew Butler have been voted by to continue as branch chairs for Limpopo and KwaZulu-Natal Branches respectively. In order to nominate committee members in the Western Cape, Gauteng, Free State and Mpumalanga branches, please may members located in these provinces submit nominations for branch chair/committee members through the links below by **11 March:**

Gauteng –

https://forms.office.com/Pages/ResponsePage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAO_bhEgWhUREZFR0daTUpSMDgwRlg2SDgwS0dETEk2Qi4u

Western Cape –

https://forms.office.com/Pages/ResponsePage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAO_bhEgWhUNzBURk9VRFFOV0Y3SEJBQ0hJTzNGVU9WNI4u

Free State –

https://forms.office.com/Pages/ResponsePage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAO_bhEgWhUOENISIFOWFdJVjVOOEpFRDVLWjU4Q1hKMS4u

Mpumalanga –

https://forms.office.com/Pages/ResponsePage.aspx?id=DQSIkWdsW0yxEjajBLZtrQAAAAAAAAAAAAAO_bhEgWhUREVIVEVNTFRPTEg1WEg4SjU2NVREUkFUQS4u

Closing Remarks

To the members of the current Council, I wish to thank each of you for the valuable contributions made during my term as President. I am also especially thankful to the Vice President and Secretary Treasurer with whom many lengthy Zoom meetings and telephone calls were undertaken, in an effort to get our finances and administration under control.

To the incoming Council, I wish you well and may we all continue supporting the South African Institute of Agricultural Engineers.

Pranesh Moodley
SAIAE President



UKZN Student Final Year Design Projects

Please follow the link below to access the UKZN Final Year Student's presentations and posters

<https://1drv.ms/u/s!AloLtLeJaT-fgmCQfB1LJuLtUDpE?e=uVbf6i>

The members of the current SAIAE National Council are profiled below in order to assist with nominations for the new President/Council. Votes for the National Council can be cast on the following link by 12 March 2021, 16h00.

https://forms.office.com/Pages/ResponsePage.aspx?id=DQSlkWdsW0yxEjajBLZtrQAAAAAAAAAAAAO_bhEgWhUNE1SVUsxUjVKV0RLVUg0MTJGRjRjRjNDhCQy4u



Pranesh Moodley – President

Pranesh Moodley is a professional Engineer with 19 years' engineering experience, mainly in Agricultural Engineering, and a director at MBB Consulting Engineers in Pietermaritzburg.

He has been involved in a wide variety of projects such as the agro-industry, irrigation earth dams, pipelines, irrigation schemes, hydrological investigations, water resource planning, construction supervision, contract administration, project management and quantity surveying. The scope of his experience within the consulting environment ranges from close involvement through the conceptual to detailed design stages of water reticulation and earth dams, in addition to topographic survey, tender document creation, site supervision and project management. His responsibilities range from being the junior member of a design team to the complete design and management of projects.

He has served intermittently on the SAIAE Committees at both branch (KZN) and national level over the last 12 years and is currently the President of the SAIAE.



Thabo Mavundza – Vice President/Limpopo Branch Chair (re-elected)

Thabo Mavundza is an agricultural engineering professional with passion for legal land and water use compliance, project management and youth development. Thabo holds an agricultural engineering degree from UKZN, a professional registered engineer with Engineering Council of South and currently the vice president and Limpopo branch chairperson for SAIAE.

He is currently servicing at Westfalia Fruit as engineering manager. Able to interface engineering and corporate commercial requirement in tailoring cost-effective solutions with proven ability to manage multi-millions of projects, business units and lead a team of engineers to delivery world-class solutions. In addition, Mavundza uses some of his time assisting in various committees of Engineering Council of South Africa and form part of advisory committees of three different Engineering schools in the country.

The engineering journey has been and still exciting as Thabo continue to expand his knowledge in the agricultural industry. His career started at the Agricultural Research Council – institute for Agricultural Engineering, then Mpumalanga Provincial Department of Agriculture and currently at Westfalia Fruit.”

engineering solutions with ecologically sensitive designs.

Raishan has served as the SAIAE Gauteng Branch Chair between 2017 and 2019 and was elected as the Secretary and Treasurer of national council at the start of 2019. He is also responsible for developing the framework for the SAIAE Mentorship Programme, through which candidate engineers will be supported to achieve their professional registration.

Raishan Naidu – Treasurer/Secretary



Raishan is a Professional Engineer with more than 12 years' experience in the water sector. He is currently employed by NAKO ILISO as the Regional Manager for the Infrastructure Business Unit for both Gauteng and Free State. He is responsible for leading and managing a civil engineering team in a wide range of municipal infrastructure projects. Part of Raishan's portfolio at NAKO ILISO is business development in the field of Agricultural Engineering, a sector that the company had previously not been involved in.

He is a specialist in surface water engineering, displaying expertise in hydrological and hydraulic modelling, design, flood analysis and storm water management for the urban, mining, industrial and agricultural sectors. Raishan is also at the forefront of integrating “green storm water infrastructure” into storm water engineering solutions. He has worked on a number of complex flood management projects, incorporating innovative engineering solutions with ecologically sensitive designs.

Raishan has served as the SAIAE Gauteng Branch Chair between 2017 and 2019 and was elected as the Secretary and Treasurer of national council at the start of 2019. He is also responsible for developing the framework for the SAIAE Mentorship Programme, through which candidate engineers will be supported to achieve their professional registration.

Jeff Smithers – Council Member



Professor Smithers is a Professional Engineer and researcher with interests and expertise in engineering hydrology, soil and water conservation engineering, irrigation engineering, agro-hydrological simulation model development and application, mechanization planning, and water and energy utilization in agricultural production systems. Jeff currently holds several positions, which include:

University of KwaZulu-Natal, Pietermaritzburg, South Africa

- Umgeni Water Chair in Water Resources Research and Innovation (from 1/2/2021)
- Professor of Agricultural Engineering, School of Engineering (up to 31/1/2021)
- Director, Centre for Water Resources Research (from 1/1/2019)
- Acting Umgeni Chair of Water Resources Management

University of Southern Queensland, Australia

- Adjunct Professor in the Centre for Agricultural Engineering

JG Afrika, Hilton, KwaZulu-Natal

- Consultant / Senior engineer (p/t)

He has published 51 Journal papers, 13 Book sections, 86 Conference proceedings and 42 Research and consulting reports, while supervising 8 PhD students (2 as co-supervisor), 14 MSc Eng students and 12 MSc students. He first served as SAIAE KZN branch chair person in 1993 and has also fulfilled the roles of Council member, Vice-President and President for the Institute. He holds membership in the American Society of Agricultural Engineers [1992 to date], Pan African Society for Agricultural Engineering [Founding and Life member; Secretary-General: 2012 to date], International Association of Hydrological Sciences, CIGR [Representative for SAIAE on Executive Board of CIGR: 2015 to date] and ICOLD Flood Evaluation and Dam Safety Committee.

Louis Lagrange – Council Member



Louis is an Agricultural Engineer, specialized in Project Management, Food Process Engineering and Energy Engineering. During his 12 years with Agrelek, a subsidiary of Eskom, he was Project Manager - Research and Development, Portfolio Manager - Food Processing, and Agrelek Manager. Their focus was to develop, market and implement innovative methods to utilize electricity in agriculture and train the field advisors of the service.

He has a passion for education and spent 7 years at the University of KwaZulu-Natal as senior lecturer in the School of Bio-resources Engineering and Environmental Hydrology, where he taught subjects on energy conversion through tractors, combine harvesters and implements and developed new courses in food process engineering.

Louis is currently at the University of the Free State for 7 years where he leads a team that successfully established a new degree in Engineering Sciences. The team has expanded and does research in energy engineering. They developed the new Green Building Index for SA, and are busy to developing a new Green Manufacturing Index, and while researching new energy related materials. Louis is leading the establishment of a new full engineering degree specializing in energy engineering, food process engineering and environmental bio-systems engineering.

Louis' passion for education is also prevalent through his facilitation of strategic planning for groups, and through training of the Certified Energy Manager (38 courses), Certified Energy Auditor (9 courses), Business Efficiency Professional (2 courses), Building Energy Auditor Training (3 courses) and Fundamentals of Energy Management Training (sole author) (32 courses) over the last 11 years for the Energy Training Foundation (EnTF) and the Institute of Energy Professionals Africa (IEPA) and for the USA based Association of Energy Engineers.

He holds an MDP Management Development Program qualification over and above an M.Eng and B.Eng in Agricultural Engineering, along with specialised qualifications as: CEM – Certified Energy Manager and CEM Trainer, CEA – Certified Energy Auditor and CEA Trainer, CMVP – Certified Measurement & Verification Professional, CLEP – Certified Lighting Efficiency Professional and Trainer, BEP – Business Efficiency Professional and BEP Trainer

CWEP – Certified Water Efficiency Professional, GBCSA AP – Accredited Professional – existing buildings, RECP – Resource Efficiency and Cleaner Production Trainer and GBI – Green Building Index (Co-developer of the new index).

Andrew Butler – Council Member/KZN Branch chair (re-elected)



Andrew has 19 years of experience in design and contract management within the water supply, sanitation and agricultural fields of engineering.

He began his professional career in 2002 with Partners in Development (Pietermaritzburg office) where he was involved with on-site construction supervision, the design of rural water supply schemes and managing the company's ferrocement reservoir construction team during his first three years of employment. From December 2004 until March 2006, Andrew was in charge of managing three zones falling under the Alfred Nzo Sanitation Programme, an extensive programme for construction of VIP latrines. In April 2006, Andrew relocated to Richards Bay to manage the Northern KZN branch of Partners in Development. During this time, Andrew was responsible for the design and contract management of three rural water supply projects (construction value of R80 million) within the uMkhanyakude District.

Andrew Butler – Council Member (contd.)

Whilst working in northern KZN, Andrew was also involved with various low-cost technology studies such as the evaluation of low-cost boreholes equipped with manual, mechanically-driven or wind-driven rope and washer pumps as well as with the management of a low-cost mud-rotary borehole drilling team. In October 2009, Andrew relocated back to Pietermaritzburg where he was employed as a Senior Engineer at Partners in Development until March 2010. During these few months, Andrew was involved with the development of a Water Services Development Plan for the uMgungundlovu District Municipality.

In April 2010, Andrew moved to Willcock's, Reed and Kotze, where he worked until January 2012. During this time, Andrew was responsible for managing numerous rural water supply contracts falling under the uThukela District Municipality. He was also responsible for the compilation of business plans for the provision of waterborne sewerage in the towns of Underberg and Himeville and in the refurbishment of the Underberg Wastewater Treatment Works.

In February 2012, Andrew joined Jeffares & Green where he was employed as Programme Manager for the Water Lifeline Project (WLP). This project was partly-funded by the Dutch Government (ORIO) with a total value of approximately R828 million. The preliminary design phase of the WLP was completed in February 2013 and approval of funding for the detailed design and construction phase was obtained in April 2014. Andrew also managed the Nsuze Irrigation Project, the Richards Bay Port Potable Water Pipeline Replacement Project and the South Coast Bulk Pipeline Phase 2B contract.

In May 2016, Andrew started his own project management and consulting engineering company African Crake Projects (Pty) Ltd. He is currently providing specialist engineering support to various consulting engineering firms within the fields of potable water supply and sanitation.



Samantha Moodley – Western Cape Branch Chair

Samantha has more than ten years of experience and is registered as a Professional Engineer with the Engineering Council of South Africa (ECSA). She holds a BScEng and MScEng from UKZN. Her Masters study was focussed on improving the logistics and efficiency of loading sugarcane for transportation. The outcome of the study involved the creation of a training DVD and which has had a positive impact on the South African sugar industry.

Upon completion of her Masters degree, she worked for a well-established Civil and Environmental consulting company for 5 years. Here she quickly gained experience and skills. Although this company did not specialize in working in the agricultural field, her drive and perseverance to pursue Agricultural Engineering related work contributed to the creation of a new section within the company. She managed projects and resources within a short time after joining the company and her competence and leadership skills were demonstrated by heading task teams for the implementation of large agricultural projects, such as large irrigation schemes, animal infrastructure and stock watering farm dams.

Samantha is committed to giving back to the profession, and was an active member of the KZN branch committee before becoming the Chairperson of the Western Cape SAIAE branch. Her work experience has included design work, construction administration, project management, client liaison and project procurement. Given her passion for helping others and the development of the country, she moved to Cape Town in 2017 and took up a position in the Department of Rural Development in their Rural Infrastructural team. Using her technical and management expertise, and experience gained as a consulting engineer, Samantha is assisting in creating systems to ensure that projects are implemented more successfully and is providing technical advice for various socio-economic upliftment rural projects.

Sandile Buthelezi – Mpumalanga Branch Chair



Sandile holds a BScEng in Agricultural Engineering and has been working for the Department of Agriculture in Mpumalanga since 2013 as a Candidate Engineer. He has experience in the design and project management of animal handling facilities, food processing facilities, irrigation systems, and water development projects. He has served as Mpumalanga branch chair since 2019. He also assists the Department of Rural Development and Land Reform (DRDLR) as a project manager for infrastructure projects such as office buildings, packhouses, farm dwellings, fencing, water development etc. He aspires to become a specialist in strategic farm planning and development.

Sarel de Wet – Free State Branch Chair



Sarel holds a BEng and MEng in Agricultural Engineering and has been a Professional Engineer since 1995. He is a Certified Energy Manager, SABI Irrigation Designer, member of the International Association of Energy Engineers and Accredited Assessor and Moderator for AgriSETA and EWSETA. With twenty-six years of experience in the design, construction, supervision, drafting of Business Plans, clean and dirty Water Management Plans, Feasibility- and Strategy studies, he runs his own consulting business in the Northern Cape.

Sarel first worked as an Engineer-in-Training, then Engineer for MBB Consulting Engineers, Nelspruit before moving to Ninham Shand (Pty) Ltd, Bloemfontein where he progressed from Senior Engineer, Principal Engineer, then Associate, working mostly on Municipal engineering works. He has done extensive work for Water User Associations. As trainer, he was involved with the setting up of the Engineering training programme at the University of the Free State. He was elected as Vice Chair at the inception of SAIAE's Free-State branch in 2017 and became Free-State branch Chair after the sitting Chair relocated in 2020. Sarel worked on the Institute's invoicing and financial records in the 2019/2020 financial year and oversaw invoicing for the subsequent years.

Mxanxathi James Mabadi – Gauteng Branch Chair



James is a tireless Agricultural Engineer and/or Project Manager with 13 years of experience in planning, design and development of Agricultural Infrastructure Projects ranging from but not limited to Piggery, Poultry, Irrigation, Hydroponics, Abattoirs, Agro-processing facilities and farm structures. Highly creative, self-motivated, performance driven and committed to service excellence. He holds a BScEng in Agricultural Engineering, an MEng in Civil Engineering and MSc in Project Management.

He has worked for both Private and Public Sectors and developed a passion for Design; Project Management and Contract Administration. His career objective is to contribute to sustainable socioeconomic and environmental development that promotes national and regional integration; poverty reduction; uplifting and enhancing the well-being of disadvantaged communities through provision of technical expertise in infrastructure development through the sphere of Integrated Water Resources Engineering & Management, Agriculture Infrastructure, and Human Settlement. His previous roles include Engineer at JG Afrika, Senior Engineer and Project Manager at E'tsho Civil and Project Management and Free State Department of Agriculture; Researcher Engineer at ARC-IAE and External Moderator for the University of the Free State.

Lately he has been involved with training of graduate engineers as a mentor under a commitment and undertaking between DALRRD and ECSA and is also an ECSA assessor and moderator. James is a member of the South African Irrigation Institute (SABI) and the Project Management Institute (PMI).