



Issue 65

Engineering

A publication of the Engineering Institution of Zambia

echo

**EIZ officially opens the
Northern Region office**

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On the Cover

Less than a year after ground-breaking, the Northern Region Office building on Kantanta street in Kitwe was finally commissioned.

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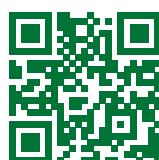
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Foreword from the Editor

Dear Readers,

The Engineering Echo Editorial Team wishes our authors, reviewers, readers, and engineering professionals a happy and prosperous 2024.

In this new year, the Engineering Echo will continue to update our readers on the most recent engineering news and activities undertaken by Engineering Institution of Zambia (EIZ). In this 65th issue, the Engineering Echo has highlighted some of the achievements EIZ has made in the last quarter of 2023.

- » EIZ Launches the Northern Region Office Building: In less than a year of groundbreaking, the Northern Region Office building on Kantanta street in Kitwe finally commissioned. The official opening of the building was graced by Hon. Eng. Charles Milupi, Minister of Infrastructure, Housing and Urban development on 14th December 2023.
- » Zambia Hosts the First Ever Women in Energy Conference: EIZ in collaboration with the Ministry of Energy, Zambia Gender Energy Network (ZGEN) and USAID Business Enabling Project held the very first-ever Women in Energy Conference on 7th December 2023 at the Radisson Blu Hotel in Lusaka. The conference was held under the theme "Igniting Women's Business Potential in the Energy Sector: POWERher".
- » EIZ Partners with Department of Immigration to Scrutinize Qualifications of Foreign Engineering Professionals: EIZ signs a Memorandum

of Understanding (MOU) with the Department of Immigration to scrutinize qualifications of engineering professionals entering the country, in order to maintain the quality of works being delivered.

- » EIZ End of year networking gala dinner a success: Several engineering professionals and other stakeholders from across the country turned up for the end of year gala dinner to network, develop relationships, build recognition and find new collaborators in the industry. The gala dinner was held on 8th December 2023 at Radisson Blu Hotel in Lusaka and was graced by Eng. Lieutenant General Maliti Solochi.
- » EIZ partners with TEVETA to enhance quality in skills development: EIZ signs a MoU with the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) to enhance quality in engineering skills development and training that will meet the needs of the industry.
- » EIZ commends government for creating industrial yards: EIZ commends government's resolve to create and enhance industrial yards and sees this as an opportunity for the creation of engineering and artisanal jobs.



As one of the benefits to EIZ membership, it was gratifying to see that EIZ yet again granted a total of K89,000.00 from the Benevolent Fund to three members of the institution. The cheques were presented to the recipients by EIZ Past President and Benevolent Fund Committee Chairperson Eng. Eugene Haazele who said that the institution will continue to help its members in times of distress.

The editorial team wishes to encourage readers to submit articles in order to disseminate information in the ever-growing field of engineering.

Happy new year and we value your support!

Eng. Prof. John Siame

Chairperson of the EIZ publications and Editorial Committee

The Editorial Team



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Message from the Registrar and Chief Executive Officer

Dear Readers,

As we embark on this new year, we embrace a fresh strategy and core values that will guide our operations, decision-making processes, and interactions with both internal and external stakeholders. This recalibrated outlook is crucial for navigating the ever-evolving business landscape we find ourselves in. While a robust strategy is paramount, true success hinges on each business unit and department playing their respective roles to achieve our yearly targets and meet the needs of our members.



We remain grateful to our membership and other stakeholders for the unwavering support rendered to the institution throughout the year 2023. The commitment to the institution is what drove us to achieve many great things last year and to create a solid perspective of what is yet to be accomplished.

We ended the year with excitement, and with the same energy and positivity, we have started another one. The launching of our Northern Region office building made us finish the year great, giving us the motivation and fortitude to achieve much more.

The new office has been a visible and viable asset, which is being utilised to build and grow our membership as well as improve partnerships with our stakeholders and we are grateful to everyone who worked tirelessly to make this come to fruition.

As a way of giving back to our membership, we granted a total of K89,000 to three members of the institution under the Benevolent Fund. The Benevolent Fund is meant for every member of the Engineering Institution of Zambia and I would like to encourage those in need to apply and benefit from it.

In collaboration with the Ministry of Energy and USAID, EIZ hosted the first ever Women in Energy Conference which was a great opportunity for women engineering professionals to interact and share ideas.

The conference also showcased various projects by our women folk.

Our end of year networking gala dinner toasted our accomplishments with music, song and dance as we interacted with members from various regions. It was our pleasure to have Eng. Lieutenant General. Malitchi Solochi grace this event as our Guest of Honour. The networking dinner was an opportunity for our engineering professionals to interact, share ideas, achievements and further reflect on challenges faced during the year and how engineering knowledge and expertise was used to solve them.

The Institution has continued to engage government on matters of engineering through parliamentary submissions made to various parliamentary Committee groups. We are grateful to the government for engaging us and we look forward to more collaborations in the year 2024.

We have continued to partner with like-minded institutions in order to help us carry our mandate, and in doing so we signed a Memorandum of Understanding (MOU) with the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) to enhance quality in engineering skills development and training that will meet the needs of the industry.

We further signed an MOU with the Department of Immigration to scrutinise qualifications of engineering professionals entering the country, in order to maintain the quality of works being delivered. This

year, we plan to explore more collaborations with other institutions.

As an institution, will also continue with the implementation of our strategic Plan which was unveiled last year and will guide EIZ through 2026. Our main focus is to improve service delivery to the members and enhance our ICT infrastructure so that we can be more efficient.

The first quarter of this year will be busy for the institution as we will be conducting elections for the Council, Regional Executives and Sections. We look forward to full member participation in this important exercise and we hope everyone will be supportive of the process.

Thank you for the faith you have continually shown in the institution, and the choices you have made to make us part of your journey.

As Secretariate, we remain committed to being your partner in all aspects, to be here when you need us, offer innovative approaches to service delivery, unrivalled flexibility and everything else needed to ensure success now and in the future.

Enjoy your reading!

Eng. David Kamungu

EIZ officially opens the Northern Region office

Less than a year after ground-breaking, the Northern Region Office building on Kantanta street in Kitwe was finally commissioned.



EIZ President Eng. Abel Ng'andu (m) unveiling the plaque during the official opening of the Northern Region office building. On his left is Infrastructure Minister Hon. Eng. Charles Milupi and (r) is EIZ Registrar/CEO Eng. David Kamungu.

The official opening of the building was graced by Hon. Eng. Charles Milupi, Minister of Infrastructure, Housing and Urban Development on 14th December 2023.

Eng. Milupi said he was impressed that the development of the office building ticked all the boxes of the three principal guidelines from the Head of State on the delivery of infrastructure projects in the country.

He said the principles are that infrastructure projects must be procured at the correct price, must be delivered to prescribed quality and must be delivered timely.

Eng. Milupi said the Institution's contribution to the development of quality,

reliable, and timely infrastructure was paramount to the achievement of the objectives of the National Infrastructure Policy and Eighth National Development Plan.

“Government is appreciative of the continued co-operation and support by our engineering professionals in the development of our infrastructure agenda. I am cognisant of the fact that without engineering professionals, high quality, timely and reliable infrastructure would not be possible,” he said.

At the same event, Minister of Commerce, Trade and Industry Hon. Eng. Chipoka Mulenga commended the Engineering Institution of Zambia (EIZ) for the

milestones made in increasing value for members and steering the institution in the right direction.

He said the office building was a physical demonstration and constant reminder that engineering professionals have a crucial role to play in the social economic development of the country.

“There is need for engineering professionals to bring their A-game to the critical demands of engineering expertise to improve quality of life,” he said.

And EIZ President, Eng. Abel Ng'andu said the building was a visible and viable asset which will be utilised to build and grow

Zambia to host the 2025 World Skills Competition

Zambia has won the bid to host the 2025 World Skills Africa competitions to be held in March 2025, in Livingstone.



A skills exhibition.

competitions which aim at showcasing and celebrating excellence in vocational skills across various industries, including engineering related skills.

Some of the key roles the institution often plays in these competitions are skills development and training which provides programmes for students and professionals in engineering related disciplines.

The institution also offers workshops, seminars, and hands-on training sessions to help participants enhance their technical skills and knowledge.

EIZ also offers technical expertise and standards within engineering skills category and ensures that the competition tasks align with industry standards and reflect the latest advancements in the engineering technologies.

By actively participating and supporting World Skills competitions, engineering institution of Zambia will contribute to the development of skilled professionals, promote excellency in engineering and strengthen global collaboration in vocational education and training.

The competition which is being hosted by World Skills Zambia is expected to attract participants from over 12 countries showcasing engineering skills and innovations across various industries..

The World Skills Competition promotes the exchange of skills, experience and technological innovations between young professionals from various regions of the world and raises the awareness of youth and those who influence them to the opportunities available in skilled professions.

The World Skills Zambia is an organization that is member of World skills international and is domiciled at Technical Education Vocational Entrepreneurship Training Authority (TEVETA), under the stewardship of the Ministry of Technology and Science.

The Engineering Institution of Zambia (EIZ) is a corporate member of the World Skills Zambia having been among the first institutions that pioneered its registration under World Skills International.

The EIZ plays a crucial role in supporting and contributing to World Skills

“

Government is appreciative of the continued co-operation and support by our engineering professionals in the development of our infrastructure agenda...

Hon. Eng. Charles Milupi
Minister of Infrastructure, Housing and Urban development

membership and improve partnerships with stakeholders.

“This structure, is not just an ordinary building for us, but a symbol of our commitment to re-shaping the profession that will stand the test of time in playing a crucial role in the economic development of this country,” he said.

He added that the membership of the Institution had grown exponentially from about 6,000 in 2012 to 75,000 in 2023.

“It, therefore, became imperative that we increased our quality of service by providing an environment that will meet the demands of our members in many significant ways and one of these ways was to construct a befitting modern structure to carry the brand and image of the institution.

Eng. Ng’andu added that the Copperbelt was a big hub of engineering activities, with so many mining companies operating, and one of the major challenges that EIZ had been facing was the non-compliance of engineering professionals.

“This has resulted in loss of confidence by the labour market and an increase in sub-standard works,” he lamented.

He therefore implored all the partners of the institution to ensure that whoever was engaged to carry out engineering works must be registered with the Engineering Institution of Zambia.



EIZ partners with Department of Immigration to scrutinise qualifications of foreign engineering professionals

The Engineering Institution of Zambia (EIZ) has signed a Memorandum of Understanding (MoU) with the Department of Immigration to scrutinise qualifications of engineering professionals entering the country, in order to maintain the quality of works being delivered.

Speaking at the signing ceremony held at Engineering House last month, EIZ Registrar and Chief Executive Officer, Eng. David Kamungu, said the partnership will help the institution to monitor the number of foreign engineering professionals, units and organisations coming to practice engineering in the country and the kind of skills they possess.

He said the MoU commits the two institutions to work more closely together towards the common goal of ensuring that engineering skills coming into the country are the required skills.

Eng. Kamungu said EIZ and the Department of Immigration have enjoyed a long-standing partnership over the last years and shall continue to do so with the signing of the MoU.

And Department of Immigration Director General, Dr. Japhet Lishomwa, said the signing of the MoU formalises the longstanding relationship by documenting commitments and paving the way for effective communication and collaboration, vital in regulating

the participation of expatriates in the engineering sector of the country.

He said a significant number of applications for employment permits, which the department of immigration considers, falls mostly under the engineering profession because most prospective employers submit applications to fill the skills gap on the local labour market for many projects.

Dr. Lishomwa said a well-managed migration enables national economic development through skills transfer, investment, tourism, trade in goods and services, and employment creation.

He the department shall continue to consult the EIZ on licensing foreign professionals, units, and organisations as part of the department's permit issuance process.

He called on engineering professionals in cabinet to look into the plight of fellow professionals and lobby for employment of young engineers, participation, policies, legislation and everything that will promote the profession.



Enforce E-GP to randomize procurement process - EIZ

The Engineering Institution of Zambia (EIZ) has recommended to the Parliamentary Committee on legal affairs, human rights and governance that the government initiative of e-GP be enforced to randomize the procurement process and eliminate collusion.

The Institution made the recommendation when it appeared before the Parliament Committee on 23rd January 2024.

Eng. Clement Silavwe who led the team said whereas the self-serving motivation to sabotage the e-GP platform may be understandable, it is a major stumbling block in the fight against the scourge of



Members of parliament listening to the presentation.

corruption, which is largely driven by liquidity.

“For example, a purely computer handled process with the first 10 submitted bids allowable would be far much better than the 3 quotations currently applicable at defeating collusion. If this were coupled with blind copies to the Auditor and then bid opening was done just once, it would beat any would be perpetrator/ beneficiaries of an opaque system,” he said.

Eng. Silawwe further said there was need to appreciate the operational and administrative capacity of the institutions involved in the fight against corruption, and further made recommendations for a frank and open review of why the Integrity Committees (IC) were not working as expected.

He stated that the increase in the number of institutions with Integrity Committees will inevitably require the expansion of the ACC Corruption Prevention Department to ensure adequate technical support on IC related activities.

He also mentioned that one of the major policy gaps is the lack of a National Anti-



Eng. Clement Silawwe (m) leading the presentation.

Corruption Policy (NACP) following the expiry of the same in 2013.

He said the reviewed NACP should provide a renewed and enhanced approach to various anti-corruption measures including the Integrity Committee (IC) Programme.

The team also recommended that a frank and open discussion on the operationalization of the Whistleblower Act must be called for and its recommendations enshrined in the Republican Constitution.

And the EIZ Immediate past President Eng. Eugene Haazele said there was need to find a way to reward good fiduciary conduct, as much as there are penalties for breach, to make heroes out of those who serve the public well.

“Whereas the self-serving motivation to sabotage the e-GP platform may be understandable, it is a major stumbling block in the fight against the scourge of corruption, which is largely driven by liquidity,” he said.

Zambia hosts the first ever *Women in Energy* conference

The Engineering Institution of Zambia (EIZ) in collaboration with the Ministry of Energy, Zambia Gender Energy Network (ZGEN) and USAID Business Enabling Project held the very first-ever Women in Energy Conference on 7th December 2023 at the Radisson Blu Hotel in Lusaka.



Women following proceedings.

The conference was held under the theme “Igniting Women’s Business Potential in the Energy Sector: POWERher.”

The aim was to enhance women’s participation as leaders and entrepreneurs in all the nodes of the energy value chain, ranging from trading in solar products to the installation of mini-grids in rural areas.

The event was meant to provide a space for sharing collective insights and reflecting on some of the current opportunities and challenges impacting on women and women-led businesses in the energy sector

The event was graced by the Director of Human Resource and Administration under the Ministry of Energy Mr. Titus Mwewa, who was representing the Permanent Secretary, Mr. Peter Mumba.

Mr. Mwewa acknowledged the strides women were making in influential positions within the energy sector and stressed the need for creating an enabling environment for investment in training, mentorship opportunities and supportive policies.

He said introducing more women into the traditionally male-dominated domain holds the promise of unlocking fresh perspectives, innovations, creativity and essential elements to propel the sector towards sustainable growth.

And EIZ President, Eng. Abel Ng’andu said Zambia was hungry for energy and the industry needed more local participation in order to continue finding lasting solutions to improving the quality of life.

He said the rise in energy demand by the rapid population increase as well as enhanced economic productivity, needed more people in the energy sector.

The Women in Energy Conference was in line with Zambia’s Eighth National Development Plan, under Strategy 6, which focused on promoting alternative green and renewable energy sources as well as scaling-up rural electrification and to make the energy sector more inclusive, resilient and supportive of industrialisation.

“

introducing more women into the traditionally male-dominated domain holds the promise of unlocking fresh perspectives, innovations, creativity and essential elements to propel the sector towards sustainable growth....

Mr. Titus Mwewa

Director of Human Resource and Administration - the Ministry of Energy

EIZ end of year networking gala dinner, a success

Several engineering professionals and other stakeholders from across the country turned up for the end of year gala dinner to network, develop relationships, build recognition and find new collaborators in the industry.

The gala dinner was held on 8th December 2023 at Radisson Blu Hotel in Lusaka.

The Guest of Honour for the event who was Eng. Lieutenant-General. Maliti Solochi. Gen. said the networking dinner was an opportunity for engineering professionals to interact, share ideas, achievements and further reflect on challenges faced during the year and how engineering knowledge and expertise were used to solve them.

“The bonds forged here, the friendships cultivated and the experiences shared during the dinner would work to shape lives in ways that will be comprehended in future; therefore, make connections and support one another,” he said.

He advised engineering professionals to reflect on what was done right within the year in the engineering sector and how improvements can be made to satisfy

clients, government and the people of Zambia.

Eng. Solochi said there was need to recognise the challenges ahead considering that the world was rapidly evolving, and with it came a myriad of challenges that were impacting the local economy negatively, from climate change to social inequalities.



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“Embrace innovation, think critically and foster a spirit of collaboration. The problems we face today require collective solutions that transcend borders and ideologies. I urge you to be reliable agents of positive change, to be compassionate and empathetic and to always strive for excellence in whatever you pursue,” he added.

And EIZ President Eng. Abel Ng’andu said the economy of the country was in the hands of engineering professionals and the profession was headed in the right direction.

He thanked all the distinguished guests and partners for celebrating with the Institution.



Engineering professionals and other guests take to the dance floor.

PHOTO FOCUS



Past Presidents and senior engineering professionals at the official opening of the Northern Region office building.



Trackers Association of Zambia representatives, EIZ secretariat and Council after signing an MOU to increase registration of skilled people.



EIZ Properties Board Chairperson Eng. London Mwafultwa (m) shaking hands with Minister of Infrastructure, Housing & Urban Development at the official opening of the Northern Region office in Kitwe.



EIZ Registrar/ CEO handing a practicing license to Minister of Commerce, Hon. Eng. Chipoka Mulenga, at the official opening of the Northern Region Office.



Senior engineers sharing a light moment during the 2023 end of year gala dinner.



Guests enjoying their meal during the 2023 end of year gala dinner.

PHOTO FOCUS



EIZ making a presentation before the Parliamentary Committee on legal affairs, human rights and governance.



Signing of the MoU between EIZ and TEVETA to enhance quality in skills development.



EIZ women having fun at the end of year networking gala dinner.



EIZ Inspector, Eng. Dokowe Muzamu guiding ZESCO employees on online registration, in Mpika.



Signing of the MoU between EIZ and Department of Immigration to scrutinize qualifications of foreign engineering professionals.



Women in energy conference.

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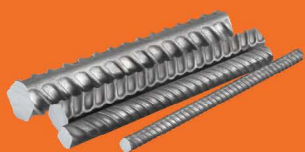
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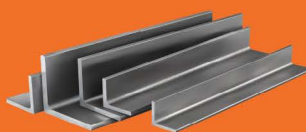
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15 YEARS OF EXCELLENCE IN PROVIDING WORLD-CLASS STEEL TO ZAMBIA

Universal Mining and Chemical Industries Limited (UMCIL) stands out as a pioneer in steel manufacturing, distinguished by its innovative approach to utilizing indigenous resources and cutting-edge technology. With a proud history spanning over 15 years, UMCIL has emerged as the sole company in Zambia to harness iron ore as the primary raw material for its steel production process, followed by the integration of **Direct Reduced Iron (DRI)**, **Electric Arc Furnaces (EAFs)**, and **electric ladles** to craft the finest quality steel products in the nation.

At the heart of UMCIL's operations lies a steadfast commitment to sustainability and self-reliance. By leveraging Zambia's abundant iron ore reserves, the company has established a vertically integrated steel production model, eliminating the need for costly imports.



Central to UMCIL's innovative steelmaking process is the utilization of **Direct Reduced Iron (DRI)**, a high-quality feedstock derived from the reduction of iron ore pellets or lump ore. DRI serves as a crucial intermediary in the steel production chain, providing superior purity and metallurgical properties compared to traditional iron-based inputs. By incorporating DRI into its operations, UMCIL enhances the efficiency and sustainability of its steelmaking process while maintaining uncompromising standards of quality and performance.



The integration of **Electric Arc Furnaces (EAFs)** further distinguishes UMCIL as a pioneer in the steel industry in Zambia. EAFs leverage electric arcs to melt recyclable steel and DRI, offering unparalleled control over the steelmaking process and enabling precise adjustments to alloy compositions and metallurgical properties. This advanced technology not only enhances the quality and consistency of UMCIL's steel products but also contributes to significant reductions in energy consumption and environmental impact compared to conventional steelmaking methods.



Additionally, UMCIL's use of **Electric Ladles** represents another milestone in its quest for excellence and sustainability. Electric ladles play a critical role in refining and homogenizing molten steel, ensuring uniformity and purity throughout the production process. By leveraging electric ladles, UMCIL maintains strict adherence to quality standards while minimizing waste and maximizing resource efficiency.

The integration of these advanced technologies not only enhances the quality of UMCIL's steel products but also contributes to significant improvements in energy efficiency and environmental sustainability. Compared to traditional steelmaking methods, which rely on coal or coke as primary fuel sources, UMCIL's electric-based approach minimizes carbon emissions and reduces the company's overall environmental footprint.

Looking ahead, UMCIL remains focused on its mission to drive innovation, foster growth, and contribute to the development of Zambia's steel industry. With a strong foundation built on integrity, excellence, and sustainability, the company is well-positioned to continue its legacy of providing world-class steel solutions that power progress and prosperity across the nation.



UMCIL
KAFUE STEEL

LET'S BUILD A STRONG ZAMBIA TOGETHER.

EIZ partners with TEVETA to enhance quality in skills development



Eng. Ng'andu

The Engineering Institution of Zambia (EIZ) signed a Memorandum of Understanding (MoU) with the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) to enhance quality in engineering skills development and training that will meet the needs of the industry.

The agreement aims to provide an opportunity to equip students with practical skills and provide a deeper comprehension of the dynamic modern world, as well as prepare them to navigate the complexities of the technology-driven society.

Gracing the occasion at Sarovar Premiere Hotel in Lusaka last December, Minister of Technology and Science, Hon. Felix Mutati said EIZ is a strategic partner that has the capacity to support the TEVET system in many ways.

He said government recognises the importance of private sector participation to ensure that skills development programmes remain relevant and responsive to socio-economic demands.

And EIZ President Eng. Abel Ng'andu said the partnership will facilitate the development, maintenance and improvement of the standards of the qualifications and personnel in the engineering profession, to result into quality training.

He added that the institution wants to have a long-term relationship and work closely with TEVETA to produce well trained engineering professionals that will contribute to raising the level of technological literacy.

TEVETA Director General, Mr. Cleophas Takaiza said the MoU will raise standards or engineering education and improve skills that will solve societal problems and improve the quality of life.



EIZ Secretariat and Council members with Benevolent Fund recipients.

More members benefit from the Benevolent Fund

The Engineering Institution of Zambia (EIZ) has yet again granted a total of K89,000 from the Benevolent Fund, to three members of the institution as one of its membership benefits.

The institution through the Benevolent Fund Committee awarded K35,000 to Eng. Gen. William Shonga, K40,000 to Tec. Gideon Ilunga, and K14,000 to Cra. Sarah Nakanyika, respectively.

Speaking during the presentation of cheques to the recipients, EIZ Past President and Benevolent Fund Committee Chairperson Eng. Eugene Haazele said the institution will continue to help its members in times of distress.

“Distress can come in different forms, so as an institution we shall be able to come through for our members and help them by offering benevolence,” Eng. Haazele said.

And Vice President Membership Continuous and Professional Development (MCPD), who is also Vice Chairperson of the Committee, Eng. Sharon Musonda called on the recipients of the fund to be ambassadors of the

Benevolent Fund by spreading the word for other members to apply.

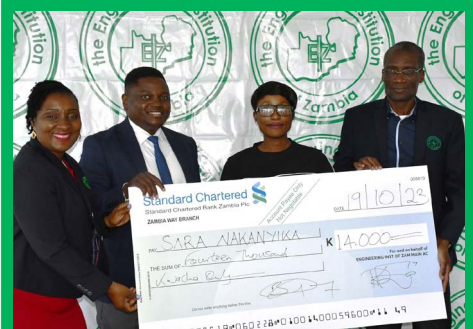
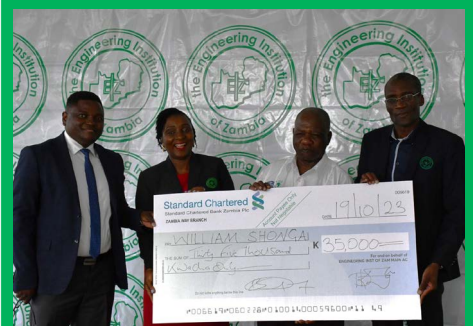
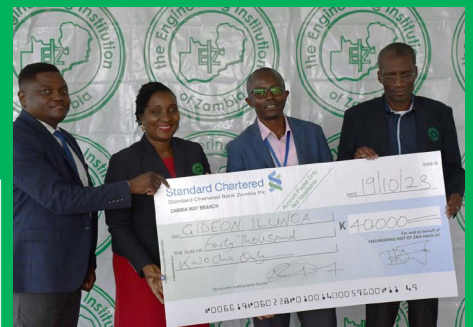
She encouraged the recipients to continue participating in EIZ activities and contribute to the growth of the institution.

Meanwhile, EIZ Registrar and Chief Executive Officer, Eng. David Kamungu, expressed delight at the growing numbers of recipients.

He said this is a demonstration that members are now appreciating the Benevolent Fund and can now see that it is real and not just a story on paper.

Speaking on behalf of the recipients, Eng. Gen. William Shonga thanked the institution for considering his application and awarding him the fund.

He called on other members of EIZ to utilise the fund when in need so that they could receive the necessary assistance.



Empowerment of indigenous businesses in PPPS key, Eng. Musonda

The Engineering Institution of Zambia has advised that the Public-Private Partnership Bill (PPP) must include and explore more ways of incorporating empowerment for indigenous businesses, beyond the ordinary subcontracting requirements.

Speaking during an appearance before the Parliamentary Committee on Transport, Works and Supply on the consideration of the Public-Private Partnership Bill 2023, EIZ Vice President Policy, Public Relations and National Development Eng. Kennedy Musonda said deliberate efforts must allow indigenous companies to exploit business opportunities in and around PPP projects by breaking into the supply chain, seizing downstream opportunities and benefits.

“The principles of the Local Content Strategy should be implemented and incentives may be considered for PPPs that have high local content,” he said.

Eng. Musonda said emphasis should also be placed on the need for extensive and adequate consultations with the private sector to ensure that the subsequent Act addresses the industry requirements, the

needs of private and multi-lateral financing institutions and meets International best practice for Public-Private Partnership (PPP) projects.

He added that the regulations for the new PPP Act must be developed alongside the formulation of the bill to avoid delays.

“Again, the development of the regulations must be a thoroughly consultative process with the private sector and other stakeholders to ensure that the regulations address the industry requirements, the needs of private and multi-lateral financing institutions and meets international best practice for PPP projects,” he added.



EIZ making a presentation before a parliamentary committee.

EIZ commends government for creating industrial yards

The Engineering Institution of Zambia has commended government’s resolve to create and enhance industrial yards and sees this as an opportunity for the creation of engineering and artisanal jobs.

And EIZ has further said that the primary solution to the usage of industrial yards would be investment in research and development and vocational skill training, to spur meaningful growth and usefulness.

EIZ Vice President Finance and Administration, Eng. Dr. Diana Kangwa, was

speaking when she made a presentation before the Parliamentary Committee on Expanded Planning and Budgeting last year.

Eng. Kangwa said engineering professionals are the implementers of most of the activities in agriculture and infrastructure development which have been planned under the 2024 budget.



Eng. Dr. Diana Kangwa

Regarding Public Private Partnerships (PPPs), Eng. Kangwa said the institution is extremely concerned that the model of funding using PPPs will potentially make

Continued on 20



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Continued from 18

the Zambian contractor redundant and left to pick up small jobs especially the ones available under the 20% sub-contracting rule.

“The real problem lies in access to cheap credit to be able to compete in tendering for PPP projects,” she said.

She further said there is need for interventions to save the Zambian contractor

and find innovative mechanisms that will make cheap credit accessible to the Zambian contractor to be able to participate in PPPs.

Eng. Kangwa said the institution also recommends improvements to the regulatory framework concerning PPP procurement approach, to be successfully utilised and implemented in Zambia.

“The institution has further noted that most of the sectors such as tourism, mining, small and medium enterprise

development, energy, and transport and logistics to mention but a few, have not been allocated sufficient funds in the 2024 budget to adequately address all issues in the respective sectors and further recommend a phased approach in implementation of the targeted projects,” she said.

The EIZ Vice President further submitted that the institution should be engaged at policy, planning and implementation stages so that the institution’s input can be included in strategic national matters.



L-R. Eng. Dr. Diana Kangwa, Eng. William Makoni and EIZ Deputy Registrar Eng. Kabwe Musonda.

Mining – a major contributor to economic development



Professionalism and compliance is an important quality to nurture in every engineering field, but in the world of mining, it takes on even more critical significance, Engineering Institution of Zambia (EIZ) Vice President Membership and Continuous Professional Development, Eng. Sharon Mabengwa Musonda, has said.

Eng. Musonda said mining was a major contributor to the economic development of the country and is undoubtedly, the field that requires extreme professionalism to avoid costs that are beyond economic losses.

Eng. Musonda was speaking during the Miners, Technicians, Artisans and Allied Workers Union of Zambia's 1st Annual Delegates Congress on 29th December 2023.

She said that EIZ has taken a radical approach to ensure that all works being carried out by engineering professionals are of acceptable standards and good quality that will stand the test of time.

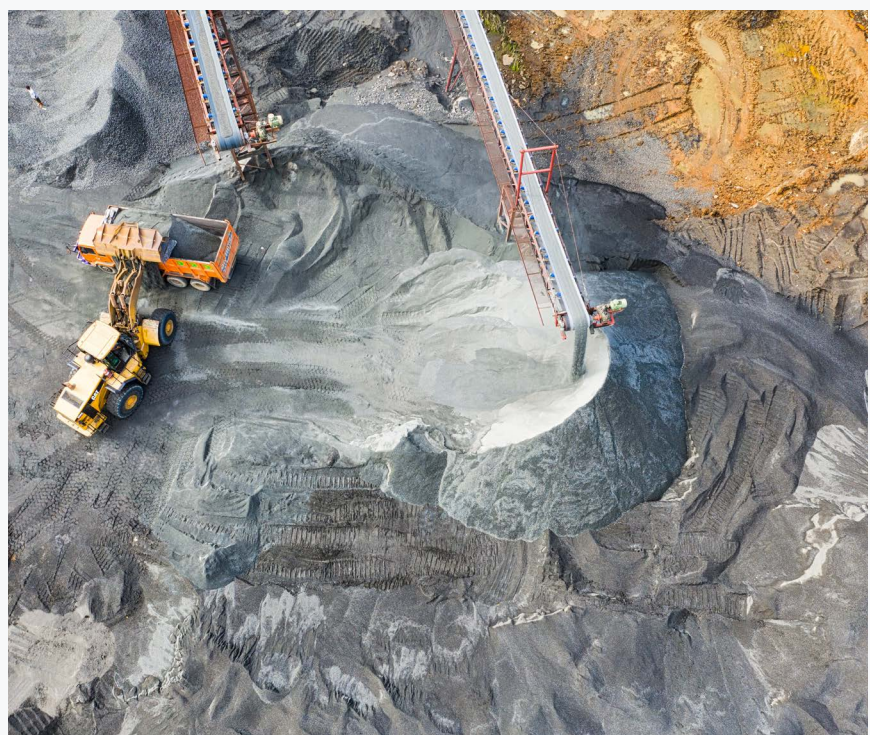
"EIZ has continued to promote engineering to provide economic and social opportunities and benefits that result in positive multiplier effects as well as contribute to the nation's gross domestic product," she said.

She said EIZ also ensures that all engineering professionals are compliant so as to avoid sub-standard works and to

provide quality assurance in safeguarding the confidence of the labour market and procuring entities of engineering works.

The Vice President has since urged all engineering professionals to exhibit the

highest levels of professionalism in their work and constantly improve and innovate ideas to provide solutions to societal problems and remain ethical as they carry out their day-to-day duties.



CDF sensitization key, Eng. Musonda



The Engineering Institution of Zambia (EIZ) has said there is need for more sensitization on Constituency Development Fund (CDF) by all key stakeholders starting from how to access funds, and how to participate in contracts.

Appearing before the parliamentary committee on Local Governance Housing and Chief Affairs on 19th January 2024, to make recommendations on the implementation of projects under the Constituency Development Fund, EIZ Vice President Policy, Public Relations and National Development, Eng. Kennedy Musonda said local contractors should be facilitated to have capacity through trainings to enable them participate effectively on all projects.

Eng. Musonda said local government should ensure that capacity building is undertaken, such as baseline data collection and review council schedules and audit processes. The qualified personnel must be engaged at Local Government level; supervised by the central government to guide, monitor and evaluate the implementation process.

He said the Local government Ministry should work with other line ministries such as: SME& Development Ministry and other stakeholders, to speed up CDF disbursement process in every constituency.

“Central government should support CDF local activities by engaging EIZ at the local level for technical support in accordance with the signed MOU and further appoint EIZ members to the CDF committees to provide technical or expert support,” he said.

He further said there was need to promote the simplification of policies and laws that guide the implementation of CDF into local languages and establish specific offices in each district to handle all the application processes, monitoring, and evaluation of projects.

Eng. Musonda also mentioned that there was need to develop stringent and punitive measures for the mismanagement of CDF and enhance the regulation and inspection of all skills training institutions.

“A training facility audit must be undertaken to streamline implementation constraints and further establish quality assurance units in constituencies to monitor implementation according to prescribed specifications,” he said.

“

Local contractors should be facilitated to have capacity through trainings to enable them participate effectively on all projects...

Eng. Kennedy Musonda
EIZ Vice President Policy, Public Relations and National Development

Eng. Musonda also mentioned that there was need to inculcate Environment, Health, and Safety best practices in trainees.

Chamber of Commerce and EIZ discuss possible joint projects

Kabwe Chamber of Commerce and Industry President Kapai Banda has said there is potential for joint projects between the Engineering Institution of Zambia (EIZ) and the Chamber of Commerce.



Eng. Chanda Chisha making a contribution during the forum

Speaking in Kabwe during a forum organised by the EIZ Kabwe branch on 9th February, Mr. Banda said the two organisations can carry joint projects in infrastructure development, renewable energy initiatives and technology innovation.

Mr. Banda said it is important to have skills development programmes jointly organised to meet the need of both industries, ensuring a well-trained workforce and fostering innovation.

“Our two organisations can work together to advocate for policies that support economic growth, innovation, and sustainable development in Zambia, particularly in the engineering and business sectors,” he said.

He said the two organisations must explore ways to facilitate networking opportunities through creating platforms for collaboration, knowledge sharing, and business partnerships.

He further said sharing resources such as facilities, equipment, or expertise will help support joint initiatives and hence maximise impact.

Mr. Banda said through joint initiatives, local businesses can be promoted and supported through projects that address societal needs, promote environmental sustainability and contribute to overall development.

“We need strategies for measuring the impact of collaborative efforts, such as monitoring key performance indicators, conducting evaluations, and gathering feedback from stakeholders,” he said.

He said the two organisations must stress the importance of ongoing communication and collaboration to ensure efforts are aligned, resources utilized effectively, and mutual goals achieved.

And making a presentation on engineering and financial planning at the same event,



Members of the Kabwe branch following the proceedings during the forum

James Silungwe an Accountant called on engineering professionals to master the skill of financial planning.

Mr. Silungwe said engineering professionals must take financial planning seriously in order to succeed in their projects.

“Do not look at financial planning as a role only accountants can do but as engineering professionals you should take an interest and have knowledge in finances and understand the basics of investments,” he said.

Meanwhile EIZ Vice President Membership and Continuous Professional Development (MCPD) Eng. Sharon Musonda called on Kabwe branch to form a cooperative and partner with Kabwe Chamber of Commerce to work on engineering projects.

“You need to come together and form a cooperative and partner with the Kabwe Chamber of Commerce because they are the ones with the business and we are the ones with the skill,” she said.

And EIZ Southern Region Chairperson Eng. Dumisani Nkhata urged the branch to identify engineering issues in Kabwe and come up with solutions on how they can be resolved.

CTS donates K19,000 to Donovan Community School

The Craftspersons and Technicians Section (CTS) made a donation of K19,000 to Donovan Community School in Kalulushi for purchase of text books, in January.

Speaking during the handover ceremony, Vice President Membership and Continuous Professional Development Eng. Sharon Musonda said the Engineering Institution of Zambia (EIZ) recognizes that every school requires critical materials such as books for effective learning.

Eng. Musonda said the Institution through the CTS saw the need and responded promptly to help the school with purchase of text books that will help children have access to good learning materials.

“With these books, we are helping to keep children in school by improving the learning experience as well as high participation in class activities,” she said.

And CTS Chairperson Cra. Field Simwanda said this was the second donation to Donovan Community School in Kalulushi with the first being 30 desks donated in October 2023.

Cra. Simwanda said CTS will always endeavour to touch the lives of children who are potential future engineering professionals.



Vice President MCPD - Eng. Sharon Musonda (c) hands over cheque to Donovan Community School

World Engineering Day commemoration coming in March

The Engineering Institution of Zambia (EIZ) will join the rest of the World to commemorate the World Engineering Day on 4th March 2024, under the theme, Engineering Solutions for a Sustainable World.



Students during a march past in commemoration of the World Engineering Day

The Institution has planned several activities to celebrate the achievements of engineering professionals and their contributions to society for a better, sustainable world.

Some of the activities include regional Career Talks, March pasts, Webinars, Radio and Television programmes and technical tours.

The World Engineering Day was proclaimed by UNESCO at its 40th General Conference in 1919. It has been celebrated worldwide on 4th March of each year since 2020 as a UNESCO international day of celebration of

BE

SAFETY CONSCIOUS

ON THE ROAD

They say seeing is believing,
but what happens when people lose their lives over something that we all see?

By Eng. Edward
Mbewe



One of the functions of the Engineering Institution of Zambia as outlined in the EIZ Act No. 17 of 2010 is to investigate and monitor national emergencies or disasters or any other matter of public concern caused by, or likely to be caused by, an engineering product or service and recommend appropriate preventive, rehabilitative or other measures.

It is from this background I draw my write up on awareness and being safety conscious as we travel on the roads. I have seen many drivers using tree branches as safety triangles during a breakdown and then after the breakdown is done the tree branches

are not removed from the road hence posing a hazard to other motorists and road users. Being safety conscious requires us all to eliminate the hazard whenever we come across one. It's a good practice to eliminate the hazard by stopping and removing the tree branches from the road and by so doing, you have saved lives.

During the day it can be avoidable but during night it can be very dangerous to those with poor sight.

Save a life by being road conscious and eliminate the hazard whenever you come across one.

engineering professionals and engineering in general.

The day offers an opportunity to highlight engineering achievements and improve public understanding of how engineering and technology are central to modern life and for sustainable development.

The celebration of World Engineering Day is an opportunity to promote engineering as

a career and highlight how engineering can change the world for the better.

It also provides an opportunity to engage with government and industry to address the need for engineering capacity and the quality of engineering professionals around the world as well as develop strategic frameworks and best practices for the implementation of engineering solutions for sustainable development.

Over the last four years, organizations, institutions, governments, civil societies, the public and private sectors, schools, universities, and more generally, engineering professionals have made world engineering day a springboard for awareness-raising actions.



Experience is the best teacher, Supuni's story

...Continued from the previous edition

"Six missed calls from Janet in one day, girl won't quit. How could she not see I have moved on?" Supuni muttered as he staggered into his house from a drinking spree. Supuni had decided that Janet was not just at his level. He was big now. His engineering company was doing well. He had the money, nice clothes and a big house near "the big boys" in New Kasama. He was convinced he was good looking too. Well, most girls thought so. Even with his short height and round body, he had received many compliments from time to time from his girlfriends, telling him how handsome he was. Yes, he had made it in life.

Today, he was expecting Michelle, a beautiful light-skinned girl he had recently started seeing. Supuni was sure he was the envy of his friends. Because he could see how she commanded the room with her presence whenever she was meeting him in his usual bar. Every eye turned. One could see the frown of the other girls' faces when she was around. There were not just a match for her. He had definitely hit the jackpot!

Supuni took his cell phone and started blocking three other girls who might be calling to disturb him and bring problems. He really needed to make a decision fast and pick one. And Michelle might just be the one. He was just from paying duty for her new Mercedes Benz. He wanted to surprise her... "Eish, this girl is gonna bleed me dry," he thought. "But

she is worth it" Efindingile! he loudly exclaimed with a silly grin on his face.

It had been two weeks since Supuni visited his engineering company. He went less and less there as months went by. He believed he had a trusted Managing Director who handled everything carefully. The Company MD would usually just deposit the profits in the bank and gave him a weekly report. Supuni trusted him. Infact, he was planning to go for a trip with one of the girls. Michelle or Natasha was likely to win the bet. "Will see, will see," he thought.

Following week, Supuni was in Seychelles with Natasha. He had been invited to play golf by some friends. "Levels", he yelled as he hit sipped his expensive wine. He had Natasha instead of Michelle. Michelle's demands were just beginning to get the best of him. First car, then renting a studio apartment, then none-stop shopping.

Months went by, Supuni started receiving less money from his Finance Director and more stories. He hated not having money to spend. His business was doing so well and he was not understanding the excuses. The following Monday, Supuni decided to pay them a surprise visit. He didn't find his MD and waited angrily in his office. After 30 minutes,

both the MD and the Finance Director walked in with sunken faces. They started explaining about how the company had some financial challenges, the loans they got to save the business, how heavily indebted they were. Supuni could not believe his ears. How could he had not known about this.

It wasn't long before Supuni's company closed. He learnt his two top former employees had opened their own business and it was flourishing. He started going into depression. He started contemplating on selling his house. He decided to call Michelle to come over and comfort him-her phone went unanswered. After several attempts and to his frustration, he decided to walk to his usual bar. Nobody looked at him or paid attention to him. H couldn't even buy his usual Meerlust wine. He was back to Mosi. All he needed was to drown himself in his sorrows.

As if the evening couldn't get any worse, there Michelle was, on the arm of another guy. "Are my eyes playing tricks on me," he thought. "This girl worshipped me". Michelle had just stepped out of the latest Range Rover with a big guy.

Supuni immediately reacted as they walked in and caused a commotion and before he realised it, punches were being thrown all over. The last thing he remembered was broken bottle at the back of his head, and then... nothing.

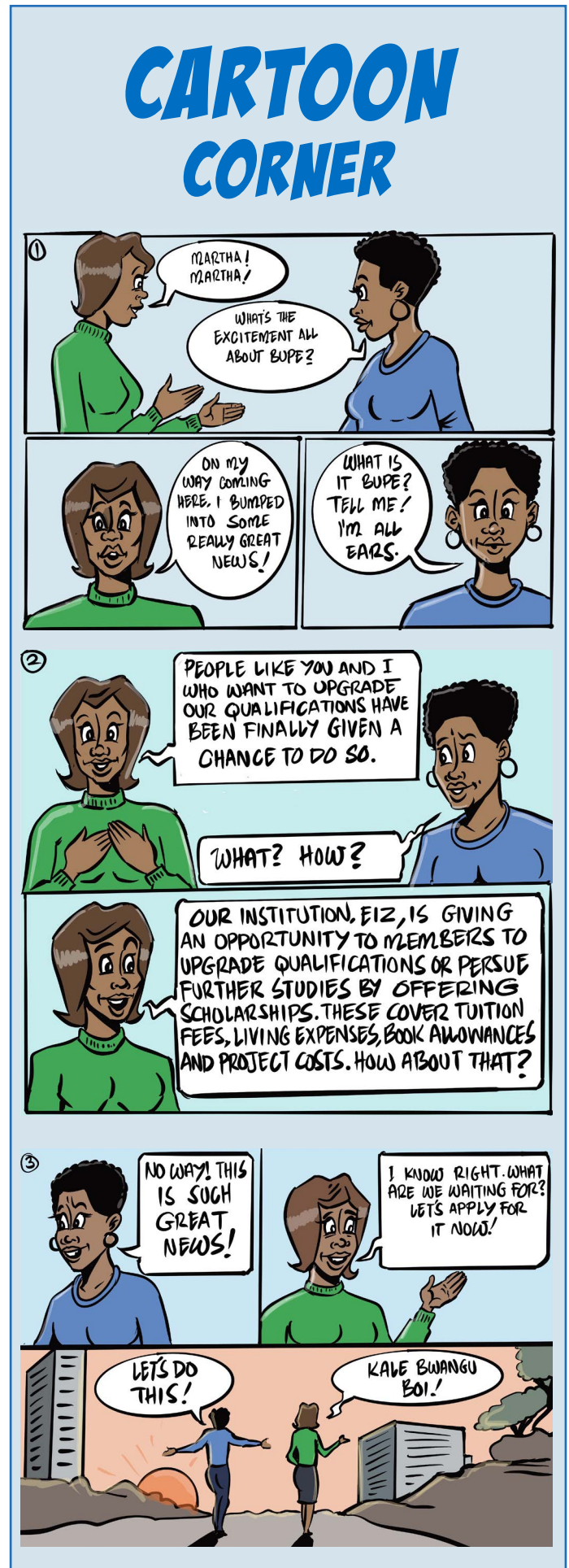
Supuni woke up and found his sister by his bedside. The sister he never remembered the last time they spoke. She was seating silently praying for him, tears rolling down her cheeks. He was lucky to be alive. Soon after being discharged, Supuni went into hiding. He had tried to call Natasha, who kept making excuses, he tried Ruth, he tried Bupe and many other of his girlfriends, who all turned him down.

One day, as he was walking to the hospital for physio, Supuni bumped into Janet. He tried to hide but there wasn't just a chance to do that. Humiliation filled his face; he couldn't look her in the eye. He had grown thin and was looking so scruffy whilst Janet looked so good. Suddenly, he his mind ran down memory lane. They were back from where they started, when they met ten years ago. He was so ashamed. He opened his mouth, but nothing came out of it.

She greeted him sweetly and wished him well. Janet had read about him in the media. She sympathised with him. She was angry with herself for still loving him despite being abandoned. The man was clearly depressed and was not even trying to pick himself up. "I wish he can realise that success is in the mind. All he needs is the courage to get up and start again," she thought. She fumbled for a note in her handbag and scribbled something and drove to Mtendere where Supuni was now squatting at his sister's house.

Supuni opened the envelope, and found a note which read, you only fail when you stop trying. Everything you need is in your mind. Attached to the note was the first engineering certificate he had given Janet when she helped him find a job with her uncle over ten years ago. Supuni wept. He had fallen so far. But he had learnt a lot too.

Five years later, Supuni was walking out of church, on his arm was Janet, his wife. The woman who truly loved him and changed his life. He looked back at the altar and thanked God for the second chance He had given him. He was a lucky man. Indeed, experience was the best teacher.





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