

# **Profession**? ngineering

A guarterly publication of the National Order of civil Engineers

Message .....

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Ensure that whoever identifies themselves as a **Civil Engineer is registered** on the 2023 roll of the Order. Never take risks with your property!

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#### by Kizito NGOA, President elect of the Order



ellow colleagues,

During the recent election of members to the Council of the National Order of Civil Engineers, you decided to give your confidence to the list led by your humble servant. In appreciation to that show of trust, I hereby express my heartfelt thanks. I am honoured to assume that duty with a mixture of excitement, humility, determination and passion.

I want to acknowledge the sense of responsibility of Civil Engineers who were keen to demonstrate that their Order is ripe to conduct democratic debates and elections, all of which stand as guarantee for the recognition they rightly expect from all Cameroonians in their quest for safe and resilient constructions that will improve their living conditions.

Fellow colleagues, with your cooperation, we shall be the President and the members of the Council of the Order of all and for all, stirred by the single focus of making our Order a unifying body that will earn it a strong reputation for professionalism and expertise in the civil engineering field. Our ambition shall be to

put our possibilities and objectives ahead of any issues that might arise. Special attention shall be given to the numerous young Engineers who have just joined the profession and who need early support at the start of their career, as they will validly take over the job with dignity to stand tomorrow as key actors for the development

of our country. You may rest assured, fellow colleagues that the commitments enshrined in our manifesto shall be at the centre of our actions over the coming term of office.

Thank you once more. May we all put our hands together to achieve an Order that is strong and well-respected within our country, for a better future.

## **NOCE 2023 Elections**



Some members of the Council of the Order that was rejuvenated by over 60%

The elective General Assembly meeting that was due for over five years, following interruption of the electoral process at the behest of the supervisory Minister calling for prior revision of the Internal Rules and Regulations, effectively took place on January 28, 2023 at Cascades du Mfoundi in Yaoundé.

Out of a total number of voters exceeding 700, the list led by Engineer Kizito NGOA tallied 53.5% of the votes cast against 46.5% for the list led by Engineer Charles Bwemba.

In general, the election was conducted in an atmosphere of serenity and transparency, thus illustrating the sense of responsibility of Civil Engineers within a national context marred by interrogations on elections within vocational orders and organisations.

Immediately after the election, the President of the new Council of the Order assured and reassured members of his determination to devote the new term of office to the promotion of the profession and defence of the interests of all Civil Engineers.

#### **News**

• In accordance with presidential decree (No 2023/141 of February 23, 2023), Cameroonian Highways shall be named and numbered as follows: A1 (Yaoundé-Douala); A2 (Yaoundé-Nsimalen); A3 (Edéa-Kribi Lolabé)

During the March Cabinet Meeting, the Prime Minister, Head of Government, expressed deep concern about the unreasonable delays in infrastructure projects.

The Minister of State, Minister of Higher Education inaugurated the Professionalisation Complex of the University of Douala.

• Under the Project for the Development of Inclusive and Resilient Cities (PDVIR), SMAR and COMAR were awarded lots 1 and 2 of the contract for the construction of urban roads and neighbourhood facilities in Douala III and V Sub-divisions for an overall cost inclusive of taxes worth 2.9 and 3 billion CFA Francs and a timeframe of 8 months.

• Again under PDVIR, SOTCOCOG Cameroun has been awarded lot 1 for the construction works of urban roads in the Ouro Tchede Ziling neighbourhood in Maroua for a total cost inclusive of taxes to the tune of 4.7 billion CFA Francs and an 8-month timeframe.

• Still under PDVIR, CHINA FIRST HIGHWAY ENGINEERING CO. Ltd is awarded the contract for the construction works of the sludge treatment plant at Ngombe (Douala V Sub-division). The construction which will last 10 months will cost 6.7 billion CFA Francs inclusive of taxes.

• Cameroon and the African Export-Import Bank (Afreximbank) have concluded a loan agreement of 35 billion CFA Francs to fund the first phase of the electrification project of 200 localities spread over various regions across the country.

• UNDP and Japan have entered into a grant agreement worth 1.3 billion CFA Francs to provide support to the implementation of social reconstruction projects in the South-West Region.

• Funded through internal resources and marred by cash-flow problems, the construction works on the Mbama - Messamena road (38 km), that was launched in October 2014 registered last January 2023, a progress rate of 85.25%.

• On its part, the Ebolowa-Akom 2-Kribi road construction project (170 km), is "back to the drawing board". Failure to meet the environmental requirements imposed by the prospective donor (UK Export France) as a prerequisite for the funding of the contract signed with Italian enterprise ICM, the government envisages to finance the works through Public Investment Budget. Experience drawn from the project just above will certainly help to get an idea of implementation timeframe.

• Senior Engineer Aubin ESSAIE MOUSSA (enrolment number ONIGC 06-0891) has been appointed at the helm of the Association of the African Road Maintenance Funds.

#### FOCUS Benefits of membership to the Order

Membership to the Order should not be seen as just one more formality. Membership to the Order is a gateway to practice of the civil engineering profession in Cameroon. Practice of the profession and use of the civil engineering credentials are open only to members registered into the roll of the Order.

Membership to the Order sustains our credibility by opening the practice of civil engineering exclusively to holders of the title Engineer (Eng.), by enabling us enjoy a privileged access to training in our field of competence, by providing support geared towards prevention and continuous enhancement through supervised professional inspections and by providing access to tools tailored to suit your reality and add value to your practice.

Membership to the Order keeps you afloat by rapidly providing you with job offers from organisations which feel confident about your title, by networking within the activities of the Order, namely annual meetings, and regional events, by enabling you participate in changes and become members of internal and regional committees, by helping you keep abreast with civil engineering activities through our newsletter and by providing you with tools to enhance your skills and evolve in your field of competence.

Membership to the Order helps in contributing to the expansion of the outreach of our profession and to the inspiration of a new generation of Engineers by being active citizens in our various regions, by actively contributing to the training of the new generation through mentorship programmes and by sharing our expertise on new techniques and technologies, working methods and other themes likely to enhance civil engineering.

Membership to the Order helps us preserve our membership privileges by working in the engineering sector, by developing our career or by establishing our own business, by being part of a network of over five thousand members and future members, capable of performing expert-focused activities provided for by the law.

In a nutshell, by being a member of the Order, be part of a movement bigger than you are!

#### **COGITATIONES EMERITUS**

COGITATIONES EMERITUS were designed to inform reflections in the field of civil engineering, specifically on processes, techniques, technologies, products and materials that could enable our country to intelligently find ways and means to attain its emergence.

Members thereof, based on their career path and their regained or assumed independence, are able to freely discuss topics proposed to them, to clarify the interests of same to the Cameroonian population and to propose business and job opportunities to fellow colleagues.

Semi-annual reflection cycles are time frames devoted to a theme chosen collectively and, under the leadership of a coordinator emeritus, their findings and recommendations are published in a scientific journal.

The next cycle of COGITATIONES EMERITUS shall begin on June 1<sup>st</sup>, 2023.

#### Activities & Representations ....



• **COUNCIL SESSION** – An extraordinary session pooling together members elect of the new Council of the Order was held on February 17, 2023 at the headquarters of the Order in Yaoundé. The only item on the agenda of the meeting chaired by Engineer Kizito NGOA, President of the Council of the Order was the election of other members into the Council Bureau.

Henceforth, the Bureau of the Order shall be made up of:

- President: Kizito NGOA, Eng.
- 1st Vice-President in charge of professional practice: Suzanne MOGUE SOBNGWI ép. NGANE, Eng.
- 2<sup>nd</sup> Vice-President in charge of professional challenges and stakes: DANWE RAIDANDI, Prof-Eng.
- Vice-President in charge of public affairs: Didier Fleury ELOM NGANE, Eng.
- Vice-President in charge of employability and social inclusion: Dorimène Yollande KWEFET BAKABO ép. YOUWO T., Eng.
- Vice-President in charge initial and continuous training: EBOB ETA KWAME, Dr-Eng.
- Secretary General: Salomon MONGO ESSOMBE, Eng.
- **Deputy Secretary General**: Simplice FEUZEU FEUGANG, *Eng.*
- Treasurer: Charles AZOLA AZOLA, Eng.
- Speaker of the Disciplinary Committee: Bruno NDONGO ZINGA, Eng.

- **Members of the Disciplinary Committee**: TOKODI LASSOU, *Eng.*; NWANCHA Roger TIKUM, *Eng.*; Winnie Tatiana ZAMBO EBA'A, *Eng.* As a reminder, newly elected members to the Council of the Order are as follows:

Guy Daniel ABOUNA ZOA, Eng.; Josué Carmel CHOKOANI, Eng.; EBENETAH TABENDANG, Eng.; Edmond MBEMUNYI NDZEFEMITI, Eng.; Claude MISSE NTONE, Eng.; NGOUH SALIFOU, Eng.; Olivier WANANKA, Eng.

• Representatives of the Order recently took part in various meetings sessions and events relating to the:

- Review of the implementation of the National Development Strategy (SND30) in the infrastructure sector (MINEPAT) ;
- 27th ordinary session of the management board of the Yaoundé-based National Advanced School of Public Works;
- Commissions for the granting of building permits in the cities of Yaoundé and Douala;
- Commission to grant approval to private laboratories for the quality control of soils, building materials and geotechnical studies ;
- Ceremony for the launching of the « green bricks » project: installation and development of an « eco-friendly bricks » production unit
  and the first campaign for the creation of awareness on the stakes of sustainable constructions at the Advanced School of Public Works.

The proceedings, working documents and reports relating to these meetings are available for consultation at the headquarters of the Order. Comments are expected to beef up the stance of the Order at these various meetings.

#### Up-coming events .....

-	NOCE – Annual Civil Engineers' meeting– April 29, 2023, Yaoundé (Cameroon)
	<b>FIDIC</b> - GLOBAL INFRASTRUCTURE CONFERENCE 2023 – 10 -12 September, 2023, Singapore (Malaysia)
PIARC	PIARC – XXVII <sup>th</sup> World Road Congress – October 02-06, 2023, Prague (Czech Republic)

 BATIMAT 2024 – The International Construction Trade Fair, September 30-October 03, 2024, Paris Expo Porte de Versailles (France)

#### Appointments .....

BATIMAT

- François Félix EWANE (enrolment number 02-0415), was appointed administrator to the National Sports Infrastructure and Facilities Board (ONIES)
- Alain Désiré ABEGA (enrolment number 11-1245), was appointed head of the Infrastructure and Regional Development Division for the Centre Regional Council

Distinction .....

Claude MISSE NTONE (enrolment number 13-1501), was made Knight of the Cameroon National Order of Merit

Obituaries .....

Arthur Apollinaire NOUMBI (enrolment number 02-0450), 57, promoter of SOLIDMAISON in the 2000s, died on January 31, 2023 in Yaoundé, following a protracted illness.

Jean ESSIMBI EMINI (enrolment number 02-0451), 70, former Head of Control Mission at CAMEROON ENGINEERING, died on January 27, 2023 in Yaoundé, as a result of illness.

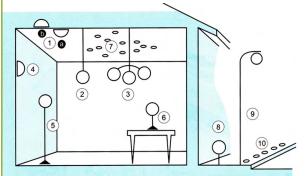
#### New members .....

#### Recently enrolled to the Order (Membership & Name)

22-3199	VOUTCHABE OLAMA Luc Junior
22-3202	VOCTABAH TIAYA Ymelle Belva
22-3203	CHETCHUEN TATE Prince William
22-3206	MADZO NZODOUM Armelle Erica
22-3209	MOUELLE SOPPO Eliot Evans
22-3210	DONFACK TIGOMO Brandon Romaric
22-3212	TASSE LOUOKDOM Harold Collins
22-3213	EBENGUE TSANGO Daniel-Landry
22-3214	TCHUENTE SOKAMTE Francis
22-3215	Georges Maxime TCHANAS FOTSO
22-3216	ZOGO NGA Syntiche Linda
22-3217	DONGMO TSOPZE Livine Sorelle
22-3218	KACDEU WELAPINOU Baudoin
22-3219	AWOUBENG Astride Melaine
22-3220	FOUEGUIM Cédric Gabriel
22-3223	TCHANKEU TEMANDJO Aristide
22-3227	NGANDO AKOUMOU Agnès Mariette
22-3230	MEKEUKIOMOUI Royse Alexandre
22-3231	EPANDI Judith NGWANG
22-3234	SA-IDOU SIDDIKI
22-3235	NANDA NGUEFACK Andrade
22-3236	GUIYE Louis-Emile
22-3237	BESONG Wilson ETA NKONGHO
22-3238	BILE BILE ABESSOLO Davy Marcel
22-3239	NLATE Jean-Marie
22-3240	ABENA Adolphe Patrick
22-3241	KAHO TEMGOUA Marius
22-3242	AKEM Collins ARUNG
22-3243	GOVIATA Markus
22-3244	YANGA Jackson Wild
22-3245	BOUTCHOUANG TCHEWA Loïc Ivan
22-3246	FOTSO MEMO TEPIENPOUC Bor Jores G.
22-3247	LAGLANE Willy Jordan
22-3248	TEGANG BEBA Valdes Benito
22-3249	TCHAPMENI TCHOUMBA Joël Landry
22-3250	NDOUYONG DJONGANG Jordy Romel
22-3251	FOKOU WATEYI Jocelyne Christiane
22-3253	TIEGOUE Yvan Loïc
22-3254	MUSA ISSA
22-3255	MFOMEGNAM CHOUAIBOU
22-3256	ATANGANA Joël Wilfried
22-3257	NANA YONTCHUI Staël Beauclair
22-3258	BOUNOUNGOU KOUNOU Jean Daniel
22-3259	Walter ALEM ATEM
22-3260	EBODE ONANA Tobie Toussaint
22-3261	TCHAKOUNTE SANDJOM Christian Brondel
22-3262	NGASSAM NONO Junior Hermann
22-3263	KENFACK TEFFO Bris Hermann
22-3264	TENE MBIMI Prisca Lablonde
22-3265	BIBOUA NGO'O Dominique Santiago
22-3266	KUIMI KOUNDJA Charnel Donovan
22-3267	NKOUE NKONGO Jerôme Maxime
22-3268	TCHEUFFA FASSI Bernard Mobil
22-3269	NGUENKEP DJIOGWE Manuella
22-3270	GUEMKEM SIMEU Cindy Christelle
22-3271	BONYOM Sara Aimée
22-3272	DAN AZIMI Mohaman
22-3273	NDI Appolinaire Willy
22-3274	BOUGHA BOUGHA Stève Blondin
22-3275	NJOYA NGOUH ABDELAZIZ

### Artificial Lighting – Types of luminaires

Eclairage artificiel – Types de luminaires



ceiling fixture (plafonnier)
 suspended luminaire (suspension)
 ceiling light (lustre)
 wall lamp (applique)
 lamp stand (lampadaire)
 table lamp (lampe de table)
 ceiling luminaire (plafond)
 lighted bollard (borne luminaire)
 street lamp (candélabre)
 marker (balise)

#### REFLECTION

#### **Construction innovation trends**

The energy and climate transition will generate new professions, new materials and operating methods on construction sites.

Digital is a facilitator, an accelerator. It can be of great help in the training process, throughout professional life. But beyond the intrinsic transformation of professions, it can be a facilitator in their articulation and coordination in the realization of projects: a catalyst for productivity. It promotes the decompartmentalization between jobs to gain versatility and cross-functionality. It also contributes to greater openness between subjects (smart city, well-being, etc.).

Connected objects, Data management, Robotics, Virtual and augmented reality. . . new technologies promise to revolutionize construction and site management.

Seeing clearly in innovation trends has become a strategic issue. This is the case for large enterprises of course, which see their positioning challenged by disruptions in the value chain, but also for SMEs and VSEs, professional organizations, training centers, etc.

Also, and even if some would think that it does not concern us, it seems appropriate for Cameroonian Engineers to see, understand and monitor the possible fields of innovation in productivity, quality and safety.

For productivity, this refers to everything that is currently being developed for: CONTROLLING LAND COSTS, CONTROLLING RAW MATERIAL COSTS, CONTROLLING LABOR COSTS, REDUCING THE ECONOMIC WEIGHT OF EQUIPMENT AND LOGISTICS, CONTROL OF GENERAL COSTS OF COMPANIES and CONTROL OF COSTS OF USE OF WORKS.

For quality, this refers to everything that is currently being developed for: THE DELIVERY OF COMPLIANT WORKS, THE DELI-VERY OF PERFORMING WORKS and THE REDUCTION OF THE IMPACT OF WORKSITES.

For safety, this refers to everything that is currently being developed for: ANTICIPATION OF RISKS BEFORE THE WORKSITE and RISK MANAGEMENT DURING THE WORKSITE.

#### NOTION Construction All Risks

Construction All Risks insurance is an essential tool in the project owner's strategy in the face of risks because it is this which, once the preventive measures have been implemented, will cover the part of the risk that could not be anticipated.

It is also when subscribing to a CAR and more particularly when drafting the clauses which define the obligations of each of the parties, that the quality of the protection prevention strategy can be checked and improved.

The CAR will cover the material damage caused to the work during construction as well as the damage caused to the materials intended to be incorporated into the construction following:

- to defined events and in particular: fire, collapse, storm, attacks-acts of terrorism (...);

- to any material damage resulting from an accidental event (principle of «all but»)

Reinforcement, demolition and clearing measures, temporary repairs, professional experts' fees, working hours, transport, travel and accommodation costs, access, cleaning costs etc. possibly with deductibles and ceilings, depending on the overall cost of the claim. The nature of the site may also require extended warranties: damage to existing ones, maintenance, anticipated operating loss, etc.

Contrary to what is generally done in Cameroon, the CAR should be subscribed by the contracting authority rather than by a company, for all the stakeholders so as to avoid loss of time resulting from debates on the sharing of responsibility in any appeals.

#### Book .....

#### to be consulted at the Documentary Resource Center of the Order



#### Planning Resilient Infrastructure Systems

(Alexander Hay - ICE Publishing, 240 pages, 2021)

Planning Resilient Infrastructure Systems is an essential guide for planning practitioners, providing tools and approaches needed for complex, changing and uncertain environments. This book takes a systems approach to infrastructure planning, focusing on delivering and sustaining the optimum outcome for society. It emphasises using evidence to understand the systems' requirements in context, selecting the most appropriate risk-based tools for the situation, and a through-life view of purpose and value.

Key features include

- a systematic approach applicable across a range of infrastructure sectors
- evidence-based tools for mapping infrastructure dependencies, modelling hazard impacts, and assessment of mitigation and recovery options to manage systems risk
- a common set of planning considerations and performance metrics useful for a range of stakeholders
- extensive use of examples illustrating applications across a range of contexts.

Planning Resilient Infrastructure Systems provides the reader, whether they are an engineer, an urban planner, or a student, with an indispensable practical guide. It is focused on planning infrastructure for sustainability and resilience, explaining what needs to be done, when, and what is needed to achieve it.

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