



Profession? Engineering!

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CONTENTS

Editorial



2024 Annual Meeting



News



Recommendations of TD13



Activities & Representations



Up-coming events



Appointments



Obituaries



Engineer's Building Project



Did you know?



Technical Vocabulary

Editorial

by **Kizito NGOA**, *President of the Order*



For better decision-making!

Certainly, we are not aware that political decision making cannot be reduced only to technical considerations. The ethical, social, cultural and economic dimensions also play a crucial role in the formulation of policies.

However, collaboration between technical experts, Civil Engineers so as not to quote them, and political leaders is essential to find a balance between technical imperatives and political realities.

Indeed, many problems with which the governments are confronted are complex and have important technical dimensions: an in-depth understanding of technical aspects is often crucial for developing effective policies.

By listening to us, political leaders can make more informed decisions, based on concrete data rather than on opinions or intuitions.

Based on our advice from technical experts, politicians can minimize the risks of adopting ineffective or harmful policies. By using technical experts, governments can promote innovation and adopt policies that encourage technological development.

Yes, when policies are based on technical opinions, this strengthens the legitimacy of decisions. Citizens tend to have more confidence in political decisions when based on evidence and expertise.

2024 Annual Meeting



A slight overview of the many participants in the Kribi Annual Meeting

The annual meeting of Civil Engineers was held on January 26 and 27, 2024 in Kribi in the South region. Placed under the theme «**Quality assurance and quality control in civil engineering**», this event very frequented with more than 700 participants, has experienced several highlights including the recovery of technical days (the last having taken place in 2020), the graduation of several Engineers (to the ranks of Emeritus, Senior and Major), the swearing in of new Engineers and the Ordinary General Assembly.

This 26th Ordinary General Assembly of the Order, held following the 13th technical day, will have been an opportunity for the Council of the Order to present the numerous actions carried out since its election, including: the call to report of any suspicious construction; the finalization of the process of integrating graduates of ex-FGI and ex-ISS; assistance in the professional integration of young Engineers; reintegration into the table of sixty members with large arrears of contributions; the sharing of resources and knowledge to members of the Order; the graduation of Civil Engineers; the beginning of digitalization of management processes within the Order; the acquisition of the land to be housed the Engineer's Building; production by an architect of the first sketches of the Engineer's Building; active participation of the Order in the Douala town planning days; the deployment in regions of representations of the Order; consultations with other professional Orders; the signing of partnerships with companies in the construction sector; ...

This assessment, which also included a presentation of the financial statements for the 2023 financial year, was enthusiastically greeted by the many Engineers present, and discharge was given to the Council of the Order for its management. Projecting itself in the year 2024, the Council of the Order presented an equally ambitious program with a draft budget which were both approved by the General Assembly.

The 2023 standard stamps
have not been valid
since February 29, 2024.
To obtain his 2024 stamp,
the Engineer up to date with
his contributions must apply
to the general secretariat
or to a regional representation
of the Order.

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News

- The Ministry of Public Procurement (MINMAP) published its first lists of categorization of companies and engineering firms by «*recommending*» to contracting authorities to take into account the procedures for upcoming tenders. The question of reimbursement of important sums of money paid to the Public Procurement Regulatory Agency (ARMP) for the previous procedure canceled by the MINMAP is still not settled.
- Two commercial loan and credit facilitation agreements for a total amount of 55 billion FCFA were signed with Standard Chartered Bank USA for the financing of the project for creation of an intercommunal fleet of civil engineering and hydraulics equipment.
- The contracts for the rehabilitation of section 3 of the Babadjou-Bamenda road and the construction of the ESSE-SOA road, awarded to BOFAS company, were terminated for «*abandonment of sites or breaches of contractual obligations*».
- The Awae-Esse road construction contract, awarded to SUPER CONFORT company, has been terminated for «*non-compliance with the contracting authorities*».
- The Order of Engineers of Congo (OIC) held its inaugural general meeting in Brazzaville on March 30, 2024 with Engineer Victor ANDALETIA as the first President. For financial year 2024, the OIC budget amounts to 39,500,000 FCFA.
- Engineer Shammah Kiteme is the new President of the Institution of Engineers of Kenya (IEK).
- Engineer Bosco Lepi is the new President of the Uganda Institution of Professional Engineers (UIPE).

RECOMMENDATIONS OF TD13

At the end of the 13th technical day of civil engineering under the chairmanship of the Eng. Emeritus Kizito NGOA and moderate by Pr-Eng. Emeritus Chrispin PET-TANG, the following recommendations were made and adopted by the 26th General Assembly of the Order:

- R1- Study and formulate the impact of the type of financing on the worsening of the effects of climate change in civil engineering projects in Cameroon
- R2- Set up the resilience criteria specific to our context of existing buildings in the face of the consequences of climate change
- R3- Develop and submit to the attention of the actors of the construction a mapping of risk zones at the phenomenon of sinkhole in the construction of infrastructure
- R4- Promote and impose as part of a regulation, compliance with the quality approach of geotechnical engineering in construction projects
- R5- Develop an audit-quality approach founded securing and controlling works in coastal areas to offer all the actors in the construction
- R6- Formalize the quality management system of civil engineering projects in Cameroon and have it rigorously enforced by all construction players
- R7- Explore and propose multidisciplinary perspectives with a view to an efficient dialogue contributing to the optimization of technical solutions
- R8- Regulate and adopt an avant-garde policy of controlling human resources profiles to all actors and stakeholders in public and private civil engineering projects (State Engineers, project management, assistance to the mastery of work, control office) to be controlled in the administrative clauses specifications, building permit
- R9- Formalize in the form of a working document the inventory of the Cameroonian normative corpus in the construction sector
- R10- Emphasis on knowledge and monitoring of regulations in terms of technical lots of buildings leaning against a quality approach
- R11- Set up a collection of updated construction standards in Cameroon
- R12- Develop and disseminate specifications adapted to the typology of current state infrastructure, DTC and even private promoters for the new engineers before their swearing
- R13- Create a technical body with the NOCE Council, whose manager is the NOCE focal point within the ANOR, responsible for sending all issues of standards and regulations in Cameroon in relation to Order of architects, Order of surveyors and Order of urban planners
- R14- Formalize the establishment of the wise committee backed by NOCE responsible for supporting the State in major infrastructure projects in Cameroon
- R15- Offer the public authorities to entrust the responsibility of producing the «*Mercuriale of prices*» each year with regard to civil engineering and providing it with MIN-COMMERCE
- R16- Propose a mobile tool for the democratic management of projects which integrates all the actors of the construction and citizen control through the tabs for the client, the project manager and the company backed by quality control
- R17- Identify, analyze and assess the responsibilities of Engineers involved in claims and/or constructions tainted with irregularities (non-quality and non-compliance) having or endangering human lives or the economy, dilapidating public funds or private, and sanction them in accordance with the NOCE regulations then disseminate within the framework of a body of control of the good exercise of the profession with the Council of the Order



Activities & Representations

● **COUNCIL SESSIONS** – In preparation for the annual meeting 2024, the Council of the Order met on November 30, 2023 and January 11, 2024 in Yaoundé for its 60th and 61st ordinary sessions. The examination and validation of the various elements to be presented was on the agenda.

● **ONIGC REPRESENTATIONS** – Representatives of the Order have taken part in recent times (face-to-face or distant) in various meetings, sessions or events:

- Annual conference of central and decentralized services of the MINTP and presentation of vows 2024;
- Board of Directors of the University of Douala;
- Board of Directors of the National School of Public Works of Yaoundé (ENSTP);
- Improvement Committee from Saint Jerome Polytechnic de Douala;
- Graduation ceremony at the Saint John Institute;
- Ceremony for graduation of Essaca architects;
- Launch of the green mobility project (MINHDU);
- Validation of the final report of the scenarios of development and the summary plan of town planning of the town of Yokadouma;
- Steering committee for land use plans of the municipalities of Batchenga, Ntui and Yoko;
- Validation of the first studies for the development of the Municipality of Ngaoundéré 2- Mayo Daneeyel district;
- Awareness meeting of actors relating to public inquiry n°4 in the fields of electricity, electrical engineering, new and renewable energies;
- Development of a map of elements of risk areas in urban areas in Douala and Yaoundé (MINHDU);
- Methodological approach in determining costs of construction of public buildings in the cities of Yaoundé and Douala (MINHDU);
- Private laboratory approval commission with quality control of soil and building materials and geotechnical studies (MINTP);
- Commission for the issuance of building permits for the city of Douala.

Proceedings, working documents and reports relating to these meetings can be viewed at the headquarters of the Order. All comments are welcome to expand the positions of the Order during these meetings.

Up-coming events

- **2024 FIDIC Global Infrastructure Conference** – 8th - 10th September 2024, Geneva (Switzerland)
- **BATIMAT 2024** – Salon International de la Construction – 30 septembre - 03 octobre 2024, Paris Expo Porte de Versailles (France)
- **Global Engineering Conference** – Engineering Innovations for a Sustainable Future – 15th -18th October, Kigali (Rwanda)

Appointments

- TIKUM Elias MBANWEI (Enrolment number 23-3565) appointed Managing Director of the National Park of Civil Engineering Equipment (MATGENIE)
- Jean Michel MBELLA EBOUMBOU (Enrolment number 05-0853) appointed Director General of Infrastructure Works at MINTP

Obituaries

- Anne Marie TEFAK PAMBE spouse ESSONO (NOCE 02-0476), died November 26, 2023, in Yaoundé at the age of 62 of illness.
- Roger Bertrand FOE NKOUSSA (NOCE 23-3548), in service at INTEGC, died on December 03, 2023 in Yaoundé at the age of 28 years of aggression.
- Marie MAKOUGOM spouse ALI MOHAMAN (NOCE 12-274), consultant-expert, died on February 09, 2024 in Yaoundé at the age of 56 from long illness.
- Hyppolite Marie SAKE (NOCE 13-1448), in service in MATGENIE, died on February 12, 2024 in Yaoundé at the age of 51 following discomfort.
- Blaise NOUFENAME TATCHUINTE (NOCE 03-0654), died February 21, 2024 in Douala at the age of 54 of long illness.
- Jean Désiré BISSAI (NOCE 17-2003), retired civil servant of MINH DU, died on March 09, 2024 in Douala at the age of 61 from short illness.

THANKS TO OUR SPONSORS

The Council of the Order sends its sincere thanks to the many partners present in Kribi who contributed to the success of this Annual Meeting of Civil Engineers:

**SIKA - PAD - LABOGENIE - SOGEA SATOM - RAZEL - SOMAF - CREA CONSULT
BETA CONSULT - VALORIS - METHOD ENGINEERING - CPA**

Engineer's Building Project

After the acquisition of the land, the Order selected an architect for the production of first sketches established after the development of an architectural program. The results were presented on the occasion of the annual Kribi meeting of January 2024.

For this year 2024, it is planned to have topographic and geotechnical studies carried out but also detailed studies to assess the technical, economic and social viability of the project.



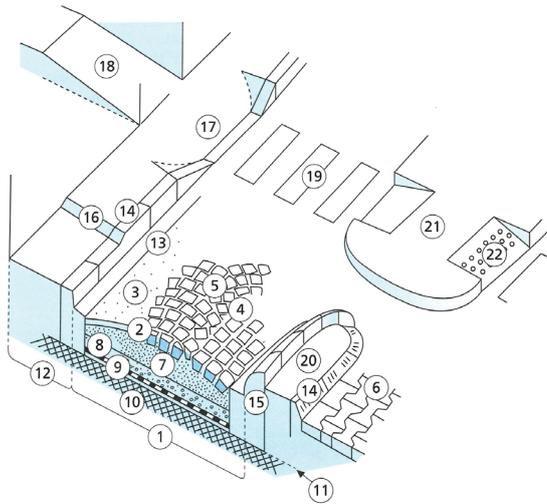
But before going to the stage of feasibility and definition studies of the economic model, it is important for the project team to collect feedback and the suggestions of members of the Order concerning the project as proposed.

Thus, Civil Engineers are invited to go to the various regional representations of the Order in order to consult the physical version presenting their Engineer's Building and formulate all opinions or recommendations aimed at optimizing the definition of the project and facilitating the continuation of studies.

This consultation of the members of the Order will end on April 30, 2024 and the results will be able to lead to adjustments or alternatives before planning the next steps.

Technical Vocabulary

External spaces - *Espaces extérieurs*



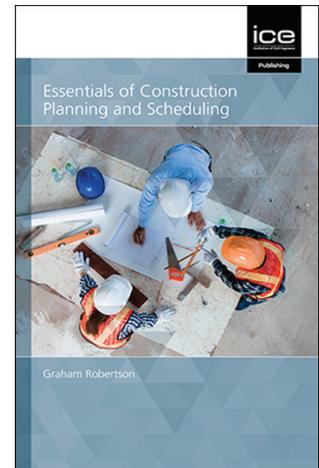
1. Roadway (*chaussée*)
2. Surfacing (*revêtement*)
3. Coated material (*enrobé*)
4. Paving (*pavage*)
5. Mosaic paving (*pavage mosaïque*)
6. Interlocking paving stone (*pavé autobloquant*)
7. Base course (*couche de réglage*)
8. Subbase course (*couche de fondation*)
9. Filter course (*couche anticontaminante*)
10. Improved subgrade (*couche de forme*)
11. Roadbed (*plate-forme*)
12. Pavement (*trottoir*)
13. Gutter (*caniveau*)
14. Kerb stone (*bordure*)
15. Wheel-dike (*butte-roue*)
16. Chamfer (*chanfrein*)
17. Dropped kerb (*bateau*)
18. Ramp (*rampe*)
19. Crossing (*traversée*)
20. Island (*îlot*)
21. Refuge (*refuge*)
22. Textured warning surface (*dispositif d'éveil de vigilance*)

Book

to consult at the Center for Documentary Resources of the Order

Essentials of Construction Planning and Scheduling

(Graham Robertson - ICE, 200 pages, 2021)



Essentials of Construction Planning and Scheduling is a practical handbook on the planning of construction projects, from tender through to project completion. The book provides essential tools to plan a project and communicate that plan to the whole project team to enable all team members to see what should be happening at every stage of a project.

Coverage includes:

- How to review project information to break the works down to areas and individual tasks, estimate durations, and develop the sequence;
- Good practice in preparing and managing a contract programme;
- Ways of supplementing the programme to effectively communicate a plan to the whole project team;
- Planning the logistics that are key to supporting delivery, and assessing the number of cranes and hoists required to deliver the plan;
- How to monitor the plan, make progress assessments, and use that knowledge to deliver the programme;
- How the site team can effectively manage change, delay and disruption.

Based on over 40 years' professional experience in this area, Essentials of Construction Planning and Scheduling is a hands-on and engaging handbook with colour diagrams and real-life examples throughout. The book will be a core reference for practitioners in this area, including planners, project managers and commercial managers, and a useful guide for clients, designers, foremen and supervisors, as well as students of this subject.

Degree of satisfaction of participants in Kribi 2024 AM

At the end of the Annual Meeting of Civil Engineers, a satisfaction survey was administered to more than 700 people who took part in the event. So,

- The overall organization, including planning and management of participants obtains: 7% for "exemplary organization", 57% for "well-managed organization" and 20% for "correct organization without glamor".
- The quality and relevance of presentations and conferences obtains: 8% for "exceptional conferences, providing innovative perspectives", 58% for "good quality and well-organized conferences" and 26% for "acceptable conferences and organization".
- Networking opportunities offered during the annual meeting for professional development and connections obtains: 9% for "excellent opportunities", 12% for "well-orchestrated opportunities promoting constructive exchanges" and 61% for "opportunities present but not fully exploited".
- The quality of catering services obtains: 3% for "high quality catering", 42% for "satisfactory catering" and 37% for "acceptable quality catering".

The results of the satisfaction survey after the Engineers annual meeting are very encouraging, with more than 80% of participants expressing satisfaction with all components of the event. This high proportion of positive responses testifies to the overall quality of the organization and the relevance of the content offered. These results are a clear indicator of Engineers' engagement and buy-in to this annual event, reinforcing its value as a platform for sharing knowledge and exchanging experiences. This positive feedback encourages the Council of the Order to continue this momentum and to maintain this meeting as an unmissable event for the community of Cameroonian Engineers.

DID YOU KNOW?

Annual consumption of concrete stands at 4.6 billion tons worldwide, representing half a ton per inhabitant (11.5 billion m³), which make it the most used building material of the planet. World concrete consumption has doubled during the last twenty years and might again increase two-fold by the year 2040, driven mainly by the population and economic growth in Asia. World concrete production represents about 8% of annual CO₂ emissions, which is about three gigatons per year. The extraordinary properties of cement, the basic component of concrete are obtained thanks to clinker: a mixture of 80% limestone and 20% of clay heated at very high temperature (1500°) and ground. Clinker is thus the main source of the CO₂, with about 500kg of CO₂ for a ton of mixture produced.

Freyssinet is experimenting an innovative technique to strengthen concrete and protect it against corrosion. After implementing it for the first time at Touquet in Pas-de-Calais (France), the enterprise intends to confirm the solution on other construction sites. The product is TFC2, a consolidated carbon fibre fabric, a carbon fibre reinforced polymer that incorporates an electrically conductive resin acting as a surface anode to polarise and protect steel bars for concrete reinforcement against corrosion.

The British Parking Association expresses concern about the increasing weight of modern vehicles with a load per square meter that the structures and slabs of car parks can hardly bear. It complains particularly about underground car parks built during the 70s when the average weight of a vehicle was 960 kg. Today, owing to comfort and safety requirements, the average weight of vehicles has registered a sharp increase and stands at 1,500 kg. It may further increase with electric vehicles which often load over 500 kg of batteries.

Each year, over 1.5 million Engineers graduate from Indian schools and universities, including an exceptionally high share of women (43%), as well as an elite of about 20,000 graduates from 23 Indian Institutes of Technology (IIT), a symbol of the country's scientific excellence.

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