



NEWSLETTER

YOUNG PROFESSIONALS FORUM
INTERNATIONAL FEDERATION OF CONSULTING ENGINEERS

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Chair's Message



Selena Wilson
Canada

We are fast approaching the Barcelona Conference, and FIDIC's Centennial Celebration is not to be missed! The YPFSC is working closely with the FIDIC Secretariat to bring you a very memorable event, where Young Professionals from all around the world will come together for three days of educational content and valuable networking. Mark your calendars, and check out this issue's article to learn more about the Barcelona details. I and the Steering Committee look forward to seeing you there! Come and join the other 200+ YPs from all around the world – more than 10% of the total expected audience from 100 countries.

I am also very excited to announce the launch of FIDIC's first Young Professional Webinar series! We are working with talented leaders and experts in the consulting industry from around the world to develop a Pilot Program for Young Professionals. The program content will focus on providing training opportunities for YPMTG graduates to continue building their skills learned from the YP management training program. The program is currently under development and we are hoping to launch the first series prior to the Barcelona conference. We would love to hear your feedback and ideas for topics, and have developed a survey for this reason. Check it out at: <https://www.surveymonkey.com/s/fidicwebinarprogram>

As part of FIDIC's strategic goal to promote regional training, the YPFSC has been working with regional groups GAMA and ASPAC to develop regionally based Young Professional Forums (YPF) under the umbrella of the main YPF. Steering Committee members were in attendance at both annual conferences and, with the support from these regional organisations and the FIDIC EC, we have kick-started this initiative! In the months to come, we will also be working with the EFCA YPF to help bridge the gap between local European YPFs to regional and international platforms. This strategy lines up with FIDIC's own regional strategy, where additional support can be provided to the international programmes, with the inclusion of issues specific to that region. Capacity building in its various forms is, of course, a key feature of that strategy.

I hope you enjoy this edition of our newsletter. Please don't hesitate to contact us if you have any questions, and please follow FIDIC's Facebook Page for upcoming YP announcements!

Selena Wilson
FIDIC YPFSC Chair



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FIDIC Centenary Conference – Barcelona 2013 (15-18 September)

Quality of Life – Our Responsibility

Over the last century, consulting engineers have made a truly significant impact on society worldwide. Innovative advances in transport, water supply, energy, buildings, and vital infrastructure have all led to improved health and economic development, and hence a much better quality of life.

However, much of humanity still struggles for food, clean water, and even survival. These issues need to be addressed more effectively. Technical solutions alone are insufficient in the broader discussions on effective governance and restricted finance. Consulting engineers will need to become more involved in the political and social debate and its impact on the solutions offered for global challenges, to better match available resources to the needs of society.

The past one hundred years of engineering excellence have shown what can be achieved. The foundations for a sustainable future have been provided, with the consulting engineer now established as an essential partner for an improved society. Effective engineering is clearly fundamental for humankind, but the strategic planning skills of engineers need to be universally recognised and used for the benefit of everyone.

FIDIC's promise is to be recognised as a trusted adviser to decision makers involved in the planning and construction of a sustainable infrastructure for future generations! FIDIC will collaborate with other like-minded organisations and companies to achieve this objective.

We are planning an extensive Young Professional Program, which will include a session looking at career development initiatives for young engineers, and how to position yourself successfully as a potential leader in your company. The FIDIC Business Day will include a special joint Young Professional Session, where we will hear from the YPMTF participants, the FIDIC YPFSC, and exciting YP regional development in Europe, Africa, and Asia.

Join us in Barcelona for the FIDIC Centenary Conference and become an active part of this global plan. Register now at: www.fidic2013.org and benefit from YP discounts and early bird fees!

For more information and registration, please contact FIDIC2013 Conference at: fidic2013@fidic.org or by Fax to +41 61 686 7788.



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Green Eco-City Practices in China

Due to limited resources and environmental capacity, China, as the most populous and one of the fastest economic growing countries in the world, is impelled to explore a pathway of sustainable development, which will contribute to the development and security at national and international levels. Cities will play an important role in this challenge. Accordingly, more and more cities are giving high attention to green eco-city practices in order to balance economic development with environmental capacity to achieve long-term benefits. Some cities are becoming models for other cities, such as Sino-Swedish Eco-city in Wuxi, Guangming New Town in Shenzhen, Sino-Singapore Eco-city in Tianjin, and Caofeidian Eco-city in Tangshan. These cities all set an ecological goal during the initiating and planning period to execute the plan step by step. This article gives a brief introduction to two pilot projects.

- Sino-Swedish Eco-city in Wuxi

Situated at the north of Taihu Lake and next to a wide swath of wetlands, the 2.4-sq-km eco-city in Wuxi is modeled after Stockholm's Hammarby Sjostad, which is built on the former industrial brownfield land located on the south side of Hammarby Lake. The project is expected to provide a green lifestyle for the town's estimated 20,000 residents. The project also forms part of the 150-sq-km Taihu New City, which is a national low-carbon eco-city demonstration zone designed with a strong emphasis on ecology and environmental sustainability.

The project was launched in July, 2010 and expected to finish within three to five years. The master plan for the eco-city has been divided into seven distinct categories covering sustainable use of energy, sustainable waste management and water supply, green building design, sustainable traffic and transport.

All the structures in the area are expected to be green and energy-efficient. Renewable energy use will account for more than 15 percent of the area's total energy usage. Local residents will be encouraged to use public transportation to make up at least 80 percent of the total commutes in the area. More than 50 percent of public transportation will utilize renewable energy. To help people "slow down" in this eco city, walking and bicycle lanes will outnumber car lanes. And the number of roads will be in accordance with the area's geographical features such as rivers and low hills.

The project also hopes to have residents lead others in recycling garbage, especially household waste. The plan is to build a pipeline network from collection stations to recycling facilities in the area. Potable water directly from the tap will be available, and water reuse and recycling will be put into practice. It's an integrated system of sustainability that goes beyond the construction of sustainable facilities. People's awareness on sustainability, is also an important part of an eco-city.

- Guangming New Town in Shenzhen

Shenzhen is a booming city with just 30-years history in South China, adjoining Hong Kong. The GDP of Shenzhen ranks fourth in recent decade and Shenzhen is also called one of the most dynamic cities in China. Rapid City development makes Shenzhen suffer from lack of different kinds of resources, such as land, energy and water. Overwhelmed population is causing serve overuse of environmental capacity. Hence, sustainable development is becoming the first priority for the Shenzhen's future.



Huili Cheng
China



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Guangming New Town in Shenzhen was established in August 2007. It is located in the west area of Shenzhen covering an area of 156.1 square kilometers and population of 1 million. Guangming New Town set the target to build a "Green City, Pioneering City, Harmonious City" and become an Ecotype High-tech Industrial Research and Development Zone. The main green construction for Guangming New Town includes:

- **Green Roads:** Guangming has built 17 city roads and 33 sub-roads, total 135 kilometers, in recent 5 years. Road density reaches 9 kilometers per square kilometers. The roads are designed in accordance with the green road standard, including permeable brick, LED street lights, renewable asphalt pavement and etc.

- **Integrated Pipeline:** The Guangming New Town has completed a 25-kilometre integrated pipeline project. It accommodates water supply pipe, electricity pipe, telecommunication pipe, etc.

- **Green Buildings:** Currently 31 on-going building construction projects have adopted the national green building standard, with total investment of 14.5 Billion RMB(USD 2.3 Billion) and 3.18 million square meters.

- **Green Belts:** Guangming has built 160 kilometers hiking trails, and constructed/reconstructed 6 parks. The green plants coverage has been increased to 1.75 million square meters.

Many engineering consulting companies at home and abroad have been involved in the construction of eco-cities, such as Sweden Tengbom Co., Shenzhen Institute of Building Research Co, etc. China has become one of the most active countries to conduct comprehensive research on the technologies of low carbon eco-city construction. Despite the fact that the construction of eco-cities is a pathway for city sustainable development, it is not all without risks. Because of the lack of a mature system and the difficulty to put low-carbon technologies into use, eco-cities in China are still in the preliminary stage of development. Some experts also propose to set up a national mechanism to coordinate and regulate the nationwide strides in creating eco-cities, while promoting the establishment of a set of standards and regulations based on the natural characteristics of China.

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ACEN CONFERENCE 2012

The Association of Consulting Engineers, Nigeria held its 34th Annual conference on the 6th and 7th of November, 2012. The theme of the conference was Nigerian Content: Where are we? The focus of the conference was on the status of the Engineering industry with regards to the various sectors of the Nigerian Economy. There has always been a recurring need for the value of engineering and professional service to strongly cut through various sectors of the government. The challenge has been with the inability of local consulting firms to gain access to the oil and gas sectors. Strategies for this were developed and agreed by the MAs. Emphasis was placed on strategic positioning for MAs by most speakers.

It was also a time of reunion for the Young Professionals who were present from all over Nigeria. There was representation from the north, south and west. The young professionals were pleased to hold deliberations on all issues about moving the group forward.



Doyin Obikanye
Nigeria



Some Young Professionals at the YP plenary session



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Two Young Professionals were also able to deliver presentations. The first presentation was on “*Opportunities for Young Professionals in FIDIC*”. This expose was presented by Adedoyin Obikanye who is also a member of FIDIC YPFSC. The opportunity for the Young Professional Management Training Program for 2013 was presented amongst other opportunities and benefits. Some of the Member Associations have responded to this. The highlight of the discussion is that Young Professionals all over the world are faced with the same type of challenges and the earlier we brace up to face them the better professionals we become. The umbrella of FIDIC has provided a platform for the voice of the Young to be heard in order for their interest to be protected. Some of the opportunities available for the young in FIDIC highlighted include; the created avenue for Young Professionals to meet and network through various means i.e. conferences and through the encouragement of local participation in MAs and participation in her committees and task force, participation in FIDIC committees and task force, presentation of papers at annual conferences – YP’s every year get the opportunity to present at the annual FIDIC Conference, be an active member of the FIDIC YPFSC – This is a volunteer work which is done by nominations after interviews.

The second speaker, Segun Adetunji; who is the President of the Young Professionals forum in Nigeria spoke about Change: *The Desired Solution*. The recognition of the professional gap between the young and older professionals was made visible and the need to provide a 10 year sustainability plan was suggested by him. The reality is that for various reasons including job security there is decline of Young Engineers in the Industry. The Nigerian Association needs to put measures in place for continuity of this profession and some of the suggestions included investing in the future of the young within the industry starting from the high school and university level. He suggested that we will need volunteers amongst the old and young to bring about an educational awareness for Consulting Engineers within our society from the “cradle” stage.

It was generally agreed that the need to support and involve the Young Professional by all Association Members is keen for the sustainability of the Nigerian Consulting Engineering Industry.

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Quality Based Selection: Best Selection Practice for a Consulting Engineering Firm

“Price has no meanings except in terms of the quality of the product.”

Dr. W. Edwards Deming (1900-1993)

Introduction

Engineering Design services typically represent only a small percentage of the construction budget, and a far smaller percentage of life cycle cost. It makes sound economic sense to ensure that consulting engineering services deliver a high-quality design. FIDIC implements and promotes the consulting engineering industry’s strategic goals on behalf of its Member Associations, and, for this reason, publishes documents in order to define the best practice for selecting an appropriate firm to meet owner demands, quality, transparency, capacity building, integrity, fair competition, project goal, social effects and sustainable development. The selected method should create a relationship that brings the owner and engineers together as a team, enabling them to define the project in detail and agree upon the services that will be required to make the project a reality. This prevents competing design firms from fee bidding and cutting the scope of work performed just to get the job.

Significant importance to Consulting Engineer selection

Because of the importance of Planning and Design and its influence on the project life-cycle cost, together with other responsibilities of consulting engineering firms, such as delivery and maintenance of the world’s infrastructure and built-environment, selecting a consulting engineer is one of the most important project decisions a client or owner must make. The success of any project depends upon obtaining the most appropriate expertise available in terms of skill, knowledge, past experience, managerial abilities, and reputation. The most important standards by which to judge a Consulting Engineer’s suitability to carry out a particular project are availability of resources, technical competence, managerial ability, professional integrity, understanding of the project objectives, and knowledge of the worksite; social, cultural and environmental conditions; and regulatory regime.

The Selection Process for Consulting Engineers

The attributes to be looked for in a Consultant are the same attributes that apply to selecting any reputable professional: expertise, experience, rapport, past performance and commitment to the Client’s objectives. The Consultant should be selected by an open and transparent process which focuses upon the ability of that Consultant to meet the project’s needs [1]. The recommended procedure for the selection of a consulting firm is to:

- Identify potential firms with relevant experience and quality based attributes in terms of professional competency, managerial ability, availability of resources and professional integrity.
- Select the most appropriate firm by using the internationally-recognised best practice, based on seeking detailed information on all these qualities, plus project understanding, at the short-listing or selection stage.
- Agree on fees that best define the scope of services with the selected firm and execute appropriate agreement terms [4].



**Shahram
S. Sandiani**
Iran



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Why QBS?

Design involves problem-solving and creativity. In contrast, production involves a routine or pre-planned process. Therefore lower quality design results when engineering services are procured as a product. When the procurement of engineering services is heavily influenced by cost considerations, there is an added risk for potential deterioration in quality or other side effects like corruption, incompetent contractors, poor project management and lack of resources to manage contractors.

QBS is a selection process to determine the most appropriately qualified Consultant based on Quality-cum-Technical Competitiveness attributes, leading to a negotiated award of Services on a fair and reasonable basis [1]. Quality-Based Selection (QBS) is a process that enables the project owner to obtain the services of a highly qualified engineering professional at a fair and reasonable cost, and investment in quality that will save money over the life of the project. [2, 3]

Why is QBS the preferred method?

In summary, the QBS method is most appropriate for projects which encompass any of the following parameters [1]:

- Have disastrous impact if the related project fails
- Assignment with high complexity
- Has a high multiplier effect
- Has a high downstream impact
- Assignments that are unique and difficult to compare
- Assignments requiring specialization
- Consultant selection among National Firms

Independent studies have established that Selection Practices Incorporating Price (PIPs) as an attribute do not deliver outcomes as good as those achieved using QBS. Such practices can place stakeholders at risk and may lead to the failure of critical projects resulting in catastrophic health, social, environmental, and financial loss. [4]

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**Communication
Chairperson
FIDIC YPFSC**



**Selena Wilson
Canada**

HOW TO BECOME PART OF THE FIDIC YPF GROUP

Become part of this young dynamic group of people and receive updates, newsletters and information on upcoming events such as FIDIC conferences and training opportunities.

International YPF Groups: find out what the YPs in your country are doing and how to connect with them! Please register on the YPF homepage listed below.

Once we have your details, we will send you our newsletter and other info as it comes up. Please remember to keep your details updated!

For general information or if you need help to connect, go to www.fidic.org

For more information or if you need help to connect, contact myself at: FIDIC.YPF@fidic.org

Selena Wilson
Communications Chairperson
FIDIC YPF Steering Committee

Starting your own YPF in your country

If you liked what you saw in the FIDIC YPF and YPFs across the world, why not start your own? This is best achieved through your country's Member Association (MA) of FIDIC. However, if no such association exists, or your MA does not want to have their own YPF, you can contact us to find out how to start your own YPF. Through FIDIC we may have resources to make it easier or help partner it with you. All you need is your enthusiasm for Engineering! From there you decide what it is that you want your YPF to represent. What is your focus? Is it just socializing with your peers? Or is it all of the above? As the FIDIC YPF, we will do all we can to support your new endeavor!

Contact us at: FIDIC.YPF@fidic.org