

# NEWSLETTER

YOUNG PROFESSIONALS FORUM  
INTERNATIONAL FEDERATION OF CONSULTING ENGINEERS

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## Chairperson's message



**Nader Shokoufi**  
Iran

We are getting closer to the annual FIDIC conference, and although I've been to three FIDIC conferences in the past four years, I'm still very excited to attend a fourth time as a young professional delegate. Each conference is a new experience, and a new opportunity to gain priceless jewels of knowledge.

And what better place than India to look for this knowledge: the land that has been a source of ancient wisdom and the land that was believed to be the source of all jewels. The land where since ancient times, people have been digging deep, mining for all sort of precious gems and metals.

"Digging deep" has been a very important part of the modern world. We have dug deep into the earth to extract oil, coal, iron ore and all the other minerals that have made modern life possible. But as the resources are depleting, we don't seem to be able to dig forever. Instead, we need to dig deep into our creativity and into our brains to bring new, innovative ideas that will help us live in prosperity but will keep us from using too much of the few resources we have left. We need to manage innovation in a way that will benefit us all.

This year, the main theme of the annual FIDIC conference is "managing innovation", and this is why I am even more eager to attend the conference. India, one of the cradles of human culture, will set the stage for us to dig into our creativity and into our past to bring innovative solutions that are both new and deeply rooted in our cultural heritage.

The FIDIC YPF Steering Committee has planned many interesting activities for young professionals during this year's conference, including:

- YP meet & greet at Hotel Le Meridien Henri's Bar at 1700 to 1900 on Sunday 19 September
- YP Open Forum at 1600 to 1730 on Monday 20 September
- YP breakfast with CEAI and FIDIC managers at 0800 to 0830 on Tuesday 21 September
- Technical tour of the Delhi Metro at 1800 to 2030 on Tuesday 21 September
- A social evening from 2100 to late at night on Tuesday 21 September

Also, don't miss the "Future Leaders Workshop", which includes the final report of YPMTP2010 participants at 1600 to 1715 on Tuesday 21 September.

I hope to see many of you in New Delhi. More than 80 YPs have registered for the conference, making it a record in YP participation at the FIDIC conference. See you there!

Nader Shokoufi  
FIDIC YPF SC Chairperson

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## Future City

by: Thomas Overgaard Jensen & Thomas Jensen

### What is Future City

Future City is an innovative and interactive teaching resource that provides teachers and students in secondary school (age 13 to 16) the opportunity to work innovatively and project-oriented with science and engineering. Students work as consulting engineers and their task is to make a bid for the City of Tomorrow - Future City - from concept to virtual reality. Future City is an engaging interaction between IT-based learning, practical modeling and science experiments that provides theoretical insight and enhances student communication skills.



**Thomas Jensen**  
Denmark



*Screenshot from Future City – a view of the office where the engineer works, the students can talk to virtual engineers with different skills.*

A Future City course runs for at least two weeks, during which the students have the future in their hands – literally speaking. Students are hired as a team of consulting engineers by the mayor of Slam City – a city on the verge of collapse – who desperately needs their help. As the Future City course develops the students will become experts in one of five different subject areas: production, nature & environment, housing & technology, infrastructure and energy. The overarching theme of Future City is climate change which the students must consider and incorporate as they combine their five areas of expertise and devise their bid for a Future City. The bid must consider societal and economical aspects of city planning and the students are forced to prioritize and make decisions by asking themselves: what are the most pressing issues to address? The final bid is presented via the integrated presentation tool which allows the students to upload Office documents, photos and movie clips. In addition to the online presentation tool, the students must present their Future City as a physical model on the enclosed city map.

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## Future City – a teaching resource

Future City is not a game – it’s a teaching resource. Hence improving student’s subject knowledge, particularly in science courses, is vital and the IT-based platform incorporates experiments, articles and encyclopedia as well as a comprehensive teacher manual. Interactive assistants - student colleagues – guide the students through Future City and ensure their knowledge progression. Future City is developed as a science teaching resource, but the concept also addresses the subject knowledge of social sciences as the students must consider societal and economical issues. Hence the opportunities for interdisciplinary work are excellent.

Future City includes free licenses to Sim City, which enables students to practice their city planning skills. The use of Sim City is optional and entirely up to each teacher. In addition each class receives a Future City map in A0 format.

## City Slam – a nationwide competition

When the class has finalized its bid for the Future City it is invited to join the nationwide competition, City Slam, where the winner takes home DKK 20.000. Once the class has submitted its proposal for a Future City, it must evaluate other classes proposal. Classes take on each other two and two until four classes remain. At the final event, which is held annually in December, the final four classes present their bid before a jury which elects the winner.



*The winning team of the competition 2009*

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## About Future City

Future City is available online around the clock, year round on [www.futurecity.dk](http://www.futurecity.dk). At the moment Future City is only available in Danish, but the platform for Future City can easily change into any language.

Future City is free of charge for Danish secondary schools.

Future City is developed by the Danish Association of Consulting Engineers, FRI, in collaboration with the Confederation of Danish Industry and the Danish Society of Engineers, IDA. The three organizations have teamed up to give secondary school classes successful experiences with science and show how science is essential when solving societal problems. Future City is supported financially by the Industry Foundation and the Ministry of Education.



*Screenshot from the Mayor of Slam City office*

Future City was launched on 21 September 2009 and more than 130 classes across the country have created their climate friendly future society on [www.futurecity.dk](http://www.futurecity.dk)

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**Scott Blacklock**  
Canada

## Consulting Engineers of Saskatchewan (Canada)

The Consulting Engineers of Saskatchewan (CES) represents consulting engineering firms in the western Canadian province of Saskatchewan. In the spring of 2008, the CES Board of Directors (BOD) agreed to develop a Young Professionals Group (YPG) to further grow and create opportunities within the industry.

Soon after the group was formed we developed a working mandate along with guidelines for what we would like the committee to do. As part of our development, we created, and now work under the following:

### Definition

A young professional is defined as an individual working for a CES member or associate firm as an engineer, geoscientist, engineering technologist or technician, or in any other function relating to the engineering and geosciences fields, and who has less than 10 years of experience within their respective field.

### Mission Statement

*To support Young Professionals (YP) within the consulting engineering and geoscience industry in Saskatchewan, and to promote consulting engineering and geoscience to those considering a career in the industry.*

Over the last two years our group has hosted numerous social events for the purpose of networking. As well, we have hosted breakfast and lunch speaker sessions with individuals from the consulting, academic and regulatory industries who have discussed their thoughts on the current business environment, along with “tips for success” for YP’s.

In keeping with our general philosophy of promoting the consulting industry and developing networking opportunities for our members, we have hosted joint social events with the Saskatchewan Young Professionals and Entrepreneurs (SYPE) who generally represent the legal and financial sectors.

In 2009 the BOD voted in favour of sponsoring the YPG committee chair to attend the national summit of the Association of Consulting Engineering Companies – Canada (ACEC), along with developing a YP award to be awarded annually in November. These initiatives will ensure that Saskatchewan has regular YP representation at the national summit.

The spring of 2010 saw the first official committee turnover. We have recruited new faces from different companies within the organization to assist in moving our group forward. I would like to thank those individuals who are stepping down for their contribution to the group, and look forward to seeing them at YPG events in the future.

Scott Blacklock  
Scott\_Blacklock@golder.com



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## Business Fundamentals for Young Engineers

As we enter the third year of the global economic slowdown, there are fundamentals of the engineering consulting business that require continual focus and improvement. Young engineers continue to have a large role in framing new strategies in improving the performance of their company and the image of the profession.

As young engineers, many times we feel helpless in assisting upper management in making decisions about the direction and strategy of the company. However, we do have a role in assisting upper management with ideas and input:

**- Assessing the Current Situation:** Young engineers typically have a viewpoint of the current workplace situation that may not be acknowledged by upper management. We can assist upper management in assessing the company's position in the marketplace and point out weaknesses in the current business model.

- Are there realistic performance goals to reflect the current environment and has a metric been established to measure progress towards those goals? Do employees know what they are?
- What is the company's marketing plan and has it been evaluated for its applicability to the current market environment?
- Do employees know what the financial performance goals are and their role in meeting them?
- Do employees know what is being done to measure client satisfaction and are employees informed on the feedback so they can improve?

**- Reduce Costs:** Are employees engaged in recognizing elements of the business where resources can be cut to increase revenue.

- As middle managers or active employees, young engineers have a role in identifying processes or items which are wasteful and suggesting new methods to improve productivity or reduce waste.

**- Seek new opportunities:** The nature of our business is ever changing. Young engineers have a unique perspective in recognizing new business opportunities.

- Young engineers have a role in helping the business identify new opportunities and market sectors where growth can be expected. We often have a different perspective in looking at our market and in identifying alternative growth areas.

**- Engineering is a People Business:** As technically minded people, we tend to forget that the engineering business is about developing solutions for the public.

- The engineering business is about service. As young engineers, we must determine the client's needs for each task and ensure client expectations will be exceeded every day. Managing client expectations is the key to keeping and developing lasting relationships.
- As a people business, our reputation and goodwill is the key to success. Young engineers have a vital role in building not only the reputation of the company but also their own reputation in the marketplace.
- Every employee has a vital role in serving their clients. Meeting client expectations will increase the company's success and will create new business opportunities.



**Mike Pniewski**  
USA



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**- Be visible:** In a down economy, it is vital to be noticed in the marketplace. Young engineers have a role in being visible to our current and future clients.

- A downturn is the best time to be noticed in the marketplace. It is important for young engineers to take a role in going out in the marketplace and build a network of older and young professionals. Make an effort to attend industry gatherings such as society meetings and other industry events in your area to meet people and build your network.

- Young engineers have a unique perspective in suggesting new methods of reaching out to clients through new media such as Twitter and Facebook and other electronic media.

- Determine what the company's marketing plan is and find a role for yourself in helping to develop and implement the plan to focus and improve marketing efforts.

**- Keep communication open:** Young engineers have a role in improving communication within the business.

- In many organizations, communication is directed from the upper management down to the employees. However, successful organizations are those that also are open to receiving communication from the employees giving suggestions and feedback to upper management. Young engineers have a responsibility to open the lines of communication and give input on the operation of the business.

- When communicating with upper management, there should be a constructive discussion on management topics and probable solutions should be developed. Complaints without solutions will not be well received.

- Young engineers and other employees are hearing about the bad news of the economy from every source and are justifiably nervous about their position. However, upper management may assume employees know how the organization is doing. Young engineers can engage upper management in having in frank, constructive discussions about the current situation.

- Employees are charged with knowing what management is doing to come up with solutions to address the current business environment. Young engineers have an important role in meeting the organization's objectives and goals. Young engineers have a vital role in the success of the consulting engineering business. By focusing on the business objectives, we can survive and prosper in the continuing economic situation.

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## The IBR Building –the Practice of Green Building

As mentioned previously in our Spring newsletter, the Shenzhen Government has implemented a Green-Technology Evaluation Standards System for all government investment projects in order to ease the environmental problems that the city is facing, due to rapid urbanization and industrial activities.

The IBR Building is the headquarters of the Institute of Building Research (IBR) Shenzhen, and a member of CNAEC. It is one of the buildings that was designed and built according to the “Green Building” technologies. It aims to demonstrate the application of green technologies and how to achieve the goal of maximizing efficiency in resource utilization and minimizing environment contamination throughout the life cycle of a building. A number of IBR’s research outcomes and registered technologies have been applied in the design of this building. It illustrates a “Green View” philosophy by combing various green technologies and forming a comprehensive system which makes the best use of resources and energy. Furthermore, other factors such as local conditions, current market trends and technological capacity have been taken into account so that the costs of not only the construction, but also the future operation and maintenance are considered.



**Julia Cheng**  
China



*The IBR Building*

The IBR building is located within the Meilin area north of Futian District, Shenzhen. The total gross floor area of the building is 18,000 m<sup>2</sup>, with 12 storeys above ground and a two-story basement. It functions as office space, laboratories, academic conference venue, car parking, and recreation facilities. A three-dimensional superposition philosophy has been incorporated when designing the building. In other words, various blocks of the building have been arranged according to their nature, space demand and functions. The green technologies implemented in the building include radiant ceiling cooling system by capillary tubes, PV solar panels, solar heating system, wind power generation system, green-roof etc. It has been concluded that the building saves 412.7 tons of coal equivalent and over 60% of energy annually compared with other similar structures.



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*Radiant ceiling cooling system by capillary tubes*

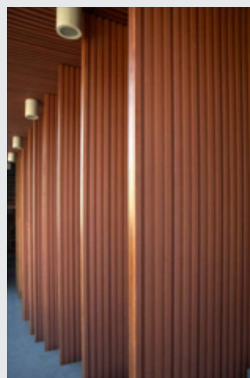


*Green Rooftop*

The IBR Building has been considered as the first affordable, duplicable, Chinese style public green building. It has been rated as a national 3-star (highest level) green building and a 3-star energy efficient building. It has been introduced into the National Top-100 Green Building Demonstration Project and other various national science and technology programs. Other accomplishments of the building include 3rd place Biennial Top Architecture in the Green and Ecological Design Award, 3rd place Biannual China Award of “Good Design is Good Business” and the Best Green Design Award by Business Weekly and McGraw-Hill Construction. Currently, research is being carried out by IBR and the Institute of Environment and Sustainable Development (GIESD) at Yale University. It aims to analyze and compare the IBR Building and the Kroon Hall at Yale, as two demonstrative examples of green building projects. The objective is to perform a comparative analysis on the styles, models and technologies used in Chinese and American green building development and eventually to disseminate suitable and feasible modalities, methodologies and applications of green buildings in both countries.



a



b



c



d

- a ) PV Solar Panels, Solar Heat System and Wind Power Generation System
- b ) Application of wood-plastic materials
- c ) Six-storey hanging garden
- d ) Weather data monitoring station



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**Communications  
Chairperson  
FIDIC YPF Steering  
Committee**



**Michele Kruger**

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

For general information about us and FIDIC, go to:

<http://www1.fidic.org/resources/young/default.asp>

For more information or if you need help to connect, contact me at:  
[fidicypforum@gmail.com](mailto:fidicypforum@gmail.com)

**Michele Kruger  
Communications Chairperson  
FIDIC YPF Steering Committee**

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## Starting your own YPF in your country

If you liked what you saw of 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 some contact 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 training Young Professionals? Is it getting the youth interested in Engineering? 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: [fidicypforum@gmail.com](mailto:fidicypforum@gmail.com)**