

This Newsletter is published quarterly by the Chartered Institution of Highways & Transportation - Qatar Group.

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@CIHTQatar



CIHT Qatar Group

## Welcome

Dear CIHT members,

In this third issue of the newsletter, you will find information on April's event, celebrate **International Woman in Engineering Day 2019**, 'meet' **Kate Bygrave**, be informed of **Qatar Regional news** and see **our sponsors' views** on how sponsoring CIHT Qatar Group has benefit their company and staff. We would like to thank all those who support us either through sponsorship or through knowledge sharing.

## Upcoming Events

CIHT Qatar Group organizes **technical, membership and social events** to maintain and enrich the **working knowledge** of highways and transportation professionals in **Qatar**.

Follow us on **Twitter, LinkedIn** or join our **email mailing list** for notification of upcoming events. Remember that all CIHT professional events can qualify towards your **CPD**.

Stay in touch so you will be informed of the new events and site visits starting again in **September 2019!**

If you have an interesting topic that you would like to present, let us know at: [ciht.qatar@gmail.com](mailto:ciht.qatar@gmail.com)

Save the date!  
We are hosting an End of Year dinner event on 4<sup>th</sup> December 2019

## CIHT News

### CIHT Awards 2019 - International Project Award

**Congratulations** to the **National Traffic Safety Committee (NTSC)** and **Arcadis Consulting Middle East** for receiving the '**Highly Commended**' award for their projects!

**CIHT Qatar will be inviting the runners-up to present the projects.**

Here are the short introductions to the projects:

### NTSC - Road Safety and Sustainable Transport Management in Qatar

**Qatar** is unique in **road safety and sustainable transport management** in the **Middle East** and amongst Developing Nations.

The **Prime Minister chairs** the NTSC as the lead agency, with membership of the UN RSC. An awardee of an International Road Safety Management Award by HRH Prince Michael of Kent in 2018, the NTSC is implementing a **10-Year Integrated Strategy with allegiance to the UN SDG's, Qatar Vision 2030 and Qatar FIFA 2022.**

The 2nd 5-year Action Plan, launched in January 2018, **has 33 key stakeholders sharing 394 actions.** With an innovative on-line Monitoring and Evaluation system, Qatar has achieved significant results. **Fatalities** have been significantly **reduced** amidst **huge infrastructure development**, including expressways, metro system, new port, urbanization and associated maintenance.

### Arcadis - Orbital Highway Contract 2

The **Orbital Highway** is a **195km vital arterial road** that will be the core of the road network in Qatar. It is a key component of the significant transformation of the land transport network in the heart of Qatar. It flows **from south of Qatar to north and east** to serve current and future urban communities on either side of it.



Orbital Road dissociates the trucks from the light vehicles flows; **two dedicated truck lanes and five light vehicle lanes for each direction.**

**Arcadis** is the **Lead Designer** of the Design and Build **Contract 2** awarded by the Public Work Authority of Qatar to QDVC-Bin Omran JV.

The length of the road network under **Contract 2** is approximately **56 km and includes 8 multi-level grade separated interchanges**, connecting Salwa Road and North Relief Road.

**CIHT Qatar celebrating International Women In Engineering Day 2019**

**International Women in Engineering Day** is an international awareness campaign, under the patronage of UNESCO, taking place annually on 23<sup>rd</sup> June, to raise the profile of women in engineering and focus attention on the amazing career opportunities available to women in this exciting industry. It celebrates the outstanding achievements of women engineers throughout the world. International Women in Engineering Day (INWED) was borne by the Woman’s Engineering Society (WES) in the UK on 2014, to allow the celebration of women in engineering to become global.

Here are some of the women working in engineering sector in Qatar showcasing their careers on INWED. See all pictures on our LinkedIn and Twitter accounts.

A big thank you to all ladies for celebrating INWED with us! Keep going in pursuing your dreams in engineering!



**Meet a professional**

**Name:** Kate Bygrave

**Job title:** Civil Infrastructure Design Manager

**Company:** Jacobs

**Where are you based:** Dubai, UAE

**How do you commute to work:** I live very close to the office and I generally have a private driver to drop me off; or else if I need my car, I will drive in.

**What is in your in-tray:** I have detailed design submissions for a container report in Egypt to review; two reports for earthworks design for a resort development project in Saudi to check and forward to the PM; and a bid to prepare for the roads access to pumped-storage hydroelectric project in the UAE.

**Best aspects of your job:** I enjoy the challenge of being a civil engineer; I love that every day is different and that I get to work in various places around the world.

**What is the most important transport issue today:** I believe that as we become increasingly urbanised, living in cities and conurbations, traffic congestion and parking issues will only increase and the system will not be able to cope with demand. In order to improve urban mobility, we must reduce our dependency on cars and promote more sustainable modes of transportation.

**What have you learnt so far from your current job and from Qatar:** My experience of working in Qatar has been extremely beneficial. I have worked on many large and diverse projects. I have been involved in coordinating highways design with metro, drainage and utility proposals on expressway and highways schemes. I was also fortunate to be involved in the Qatar Metro and was responsible for coordinating the access design including buses, taxis, pedestrians, etc.



I have learnt that it is extremely important to liaise with all concerned parties to achieve a well-balanced and thought out design that achieves the objectives of the brief as well as the goals of third parties.

**Ambition:** I have worked in the construction industry all of my life and am very content with my current role as design manager. I aim to continue to work in the Middle East where the opportunities to be involved in interesting and exciting projects can more readily be had. I also like to assist in mentoring engineers to help them become professionally qualified.

**We just celebrated International Women in Engineering Day in June, what is your message to all women starting their career now in the engineering sector:** Civil Engineering is a diverse and rewarding career. The range of roles is vast including analytical, design, management, marketing, etc. There is something for everyone.

Being female in a male-orientated environment taught me the importance of being myself rather than trying to mould myself to fit in. Just be yourself, do your job to the best of your ability and you will earn respect.

It is also very important to remember that when applying for a job women tend to think that they need to demonstrate every requirement on the job description, men tend to try for the position even if they feel they can only meet some of the criteria. Be confident, go for it; you have nothing to lose!

One of the best things that I have found during my career, is people’s willingness to help me achieve my goals specially to become professionally qualified. Embrace that culture of caring, but don’t forget to ‘pay it forward’. I find mentoring very rewarding, that is why I founded CIHT Qatar back in 2011.

*Kate founded CIHT Qatar Group in 2011. She chaired the group until October 2016 and has been in the committee until July 2018.*

In case you missed it...

**Technical Seminar, April 2019 - Innovative Testing and Monitoring Techniques in Pavement Construction & Geotechnical Investigations in Qatar**

Dr. Pejman Dehdezi, Senior Pavement Specialist, and Anna Villamor, Geotechnical Engineering Manager from Fugro Qatar were guest speakers of this technical seminar event.

Dr. Pejman Dehdezi introduced **road pavement testing equipment** built with advanced technologies that are new in the road pavement testing sector in Qatar. The equipment, include Ground Penetrating Radar (GPR), Light Weight Deflectomete (LWD), Falling Weight Deflectometer (FWD), Automated Road Analyser (ARAN), and also other advanced **laboratory equipment for asphalt mix design**. Unlike nuclear density gauges or radioactive alternatives, these innovative testing systems **do not have any site hazards or require closing off work areas**.

Anna Villamor described the **innovative testing and monitoring systems of geotechnical investigations**. She presented some key challenges encountered by professionals in the field and how these can be overcome by using the latest systems.



**Qatar Regional News**

**Doha Metro – Transforming Qatar’s Public Transport Sector**

In **May 2019**, Qatar Rail started operation of **Doha Metro**. The **Red Line**, and **13 of its stations** running from **Al Qassar to Al Wakra** (north – south connection) were the first to launch on the network.

This launch came almost one year ahead of schedule. It is a landmark for Qatar’s transport sector, providing an opportunity for the public to experience **railway in Doha for the first time** and a real opportunity for modal shift from private cars.

The second line, Green Line, is scheduled to start operation soon, providing passenger services between Al Riffa and Al Mansoura (east-west connection); with interchange stations with the Red Line at Al Bidda and Msheireb.

The state-of-the-art trains are **operated automatically**, without the presence of a driver on board. It is one of the fastest driverless trains in the world able to reach 100km per hour.

The design of the trains is custom made for the Doha Metro Project and are divided into **Standard Class, Family Class and Gold Class**. Connecting between the metro stations and key destinations are **Metrolink buses**. The rides on the Metrolink are free with a valid metro ticket.

For more detailed information, download the **Qatar Rail app**.

**Doha Metro is accessible to all.  
Start travelling on the Metro now!**



**Partial Opening of Al Khor Expressway**

**Benefits of Al Khor Expressway:**

- > A vital land transport link for 20 residential areas, business districts, leisure facilities, recreational and tourist destinations educational institutions and direct connection to two of the 2022 FIFA Stadiums, Lusail and Al Bayt Stadium, and several sport facilities.
- > Consists of 10 multi-levelled interchanges, 8 bridges, 22 underpass and a camel crossing
- > Will connect Al Khor with Doha in approximately 20 minute. Serves more than 30 residential areas
- > Intersects with major highways such as G-Ring road, Salwa Road, Dukhan Road, Al Shamal Road and Al Khor Expressway.
- > Provides 34km Olympic cycle track and 33 km of shared paths for pedestrians and cyclists, 42 pedestrian and cycle underpasses

The **33km-long main carriageway** of Al Khor Road and **3 vital interchanges**, Simaisma Interchange, Al Khor Road's intersection with Al Majd Road, and Al Khor Road's intersection with Al Turfa Street were fully opened on **April**, a year ahead of schedule. On June Ashghal announced the opening of a **new interchange** (exit 32).

The Al Khor Road main carriageway consists of **5 lanes** in each direction in addition of **2 emergency lanes**, extending from Al Khor city to Qatar University Street in Doha, serves as an alternative to Al Shamal Road and reduces travel time to Al Khor by up to 65% compared to the same journey via Al Shamal Road.

The new road layout has increased the vehicular capacity to accommodate approximately **10,000 vehicles per hour** instead of 4000 vehicles per hour as well as improved traffic movements and enhanced road safety.

The project’s special design allows for a wide central median that will **accommodate the railway line**, connecting Al Khor to Doha with two main stations. During the construction Khor Expressway **25 km of non-stop wearing course** paving completed by Tekfen is in the process of being submitted for a new **Guinness World Records**.

Reference: <http://www.ashghal.gov.qa/en/MediaHub/News/Pages/Ashghal-Opens-a-New-Interchange-on-Al-Khor-Road.aspx#XUVLrhS9PY>

Our Sponsors

At CIHT Qatar, we are **grateful for our sponsors'** support and generosity to enable us to **organize Continued Professional Development sessions** for the highways and transportation professionals in Qatar.

We asked them for **their view on how sponsoring CIHT Qatar benefits their company and staff**. Here are the response from seven of the sponsors. We will be including messages from our remaining sponsors in our next issue. Thank you all for your continuous support!



With the number of active projects such as: Doha Metro, Qatar Economic Zone – 3 and Expressway Group 8, there is a constant need of **skills improvement and exchange of the latest trends and know-how**; CIHT provides that in the most efficient manner. The **site visits** allow the members to get **real life examples** of the use of technology and **seminars** update on the **innovations**. Finally, **networking** is a huge part of being a member of CIHT – meeting the fellow members and professionals creates the exclusive skills hub.



CIHT is **one of the active professional groups** in Qatar. Its events attract so many professional engineers and planners from the industry in Qatar. Muhel Consulting is a **proud sponsor** of CIHT Qatar Group which is a great way for promoting our business within the industry.



In conjunction with the opening of the Doha office this year, PTV Group has also become a **proud sponsor** of CIHT Qatar. PTV Group is the global market leader in the development of software and traffic management solutions for the optimization of the movement of people and goods. As such, PTV Group is committed to **technical excellence and continuous professional development**. In this respect sponsoring CIHT means **joining a local and wider community of professionals** who share the same goal to **foster professional growth and strengthen relationships** to in the field of transportation engineering. Since technical research has traditionally been a core component of our company, PTV Group sees this as a **unique opportunity** to contribute with their expertise and work together with other CIHT members and sponsors to **add value to the current market and technology trends** in Qatar and the Region. PTV Group will be looking forward to taking an **active role** in the upcoming CIHT events, seminars, socials and making their talents available for other fellow professionals.



Sponsoring CIHT Qatar has brought **many benefits** to WSP in the Middle East including an opportunity to **increase the awareness of our company brand**. A number of **our people and clients** are CIHT members – our sponsorship is a demonstration to them that we **support their personal professional development** and that we are **investing** in the development of the **transportation engineering profession**.



Fugro is **honored** to sponsor CIHT Qatar. We consider that being a member of this group, helps our staff to **develop from a professional and personal point of view, strengthening their careers and network within the local and international community**. In addition, we see CIHT as an **excellent platform to share knowledge and give visibility** to Fugro's different service lines supporting the Highways and Transportation market.



As well as the obvious reason of using sponsorship for **highlighting the presence of PAF** to those potential clients in Qatar it also shows our **commitment to supporting CIHT in the exchange of knowledge** to both members and non-members. PAF Highways & Traffic Safety are passionate in doing our bit to help the State of Qatar fulfil and achieve the objectives contained with the National Road Safety Strategy Action Plan. Being a sponsor has helped PAF, over the years, to **identify suitable CIHT members to assist us in the delivery of our work** and such have given many the **opportunity to work alongside us** to progress to approved Ashghal Road Safety Auditors. We continue to **work together with local engineers**, in our joint venture with Seero, in providing our services but also on building on skills and expertise ensuring that the roads of Qatar are safe for all.



Sponsorship to CIHT Qatar comes because of the **deep belief** in the **significance of knowledge sharing and continuous development**. Our involvement with CIHT has **amazing positive feedback on our team** which keeps us always up to **new ideas, trends and continuous connection with the industry**. Our goal in this sponsorship is to **keep empowering CIHT in Qatar to increase awareness, develop quality, and adapt to the continuous change**. Thanks to CIHT and to the amazing volunteers.

The Qatar Group is sponsored by the following organizations



If you are interested in sponsoring us please contact [ciht.qatar@gmail.com](mailto:ciht.qatar@gmail.com) for details of sponsorship packages.