



## Welcome to our September Newsletter!

With the end of summer and the start of a new school year, it is a great time to reflect on what has been going on at the Centre. Highlights in this newsletter include:

- Ian Cowan writes about undertaking control room training at the Centre, and another article about the presenting the Centre's learnings at the RTDS® European User Group Meeting (UGM) and the ACDC 2019 conference;
- Yash Audichya comments on the publication of the DC-GIS report, and on attending the 47<sup>th</sup> session of CIGRE in Paris;
- Ruth Apps discusses events, tours and engagement opportunities; and
- Simon Marshall provides an update on the Centre's current recruitment.

Ruth Apps

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## Centre Events and Tours

Over the summer we have hosted a number of University, conference and school visits, talking about the electricity sector and how the HVDC Centre de-risks the GB network.

If you are interested in finding out about visiting our Centre or hosting an event here, please contact: [ruth.apps2@sse.com](mailto:ruth.apps2@sse.com)



To find out more, please contact us to discuss or to arrange a visit:

**01236 687240 | [info@hvdccentre.com](mailto:info@hvdccentre.com) | [hvdccentre.com](http://hvdccentre.com)**

## Control Room Training

Having our own Replicas provides greater availability and flexibility in the training the Centre can deliver compared to that provided by a Supplier. Where the supplier focus, rightly, is on the operation of the product they deliver, our priority is on the integration with the wider transmission network.

Using Replicas for training also means that the training can be transformed from a lecture style delivery to hands-on practical sessions.



Following on from the basic introduction to HVDC and real-time simulation training we ran last year, we have welcomed control room operators for more project specific training sessions. This has allowed them to run through basic operations of the link using the processes that are intended to be used when the scheme goes live, and provided the opportunity for a sign-off process for operating the scheme.

As future employees are introduced into the team, these training sessions can easily be rerun as required, getting people operational faster.

Ian Cowan

# DC-GIS Report



We are representing SHE Transmission in PROMOTiON (Progress on Meshed HVDC Offshore Transmission Networks) in Work Package 15. This work package seeks to produce guidelines for specifying the requirements for HVDC GIS (Gas Insulated Switchgear), develop requirements and procedures for testing HVDC GIS, develop new monitoring and diagnostic methods for HVDC GIS, carry out long term testing of HVDC GIS, and raise the technology readiness level. We are leading on Task 15.1. producing equipment specification as well as testing requirements and procedures.



The advantages HVDC GIS are apparent. Compact DC switchgear is needed for HVDC cable connections to remote offshore wind farms and onshore projects close to city centres, where space is at a high premium. The compact design of gas insulated HVDC systems has been estimated to reduce space requirements by 70%-90% compared to air insulated switchgear (AIS). This could lead to space saving of up to 10% for overall offshore platform.

Under Work Package 15, ABB will supply a 320 kV HVDC GIS for testing at Arnhem. The tests will be conducted at DNV GL KEMA test facility in Arnhem, Netherlands. A report on Task 15.1 will be published on our website in the next three months. Please email us at [info@hvdccentre.com](mailto:info@hvdccentre.com) if you would like a copy of this report when published.

Yash Audichya

## CIGRE Paris 2018

The 2018 CIGRE Session featured TSOs, DSOs, Equipment manufacturers, Consultants, and Technology experts from all walks of the Power Industry. Meshed HVDC Grids, HVDC Circuit breakers, and system aspects of HVDC Grids were prominent subjects for discussion at the Conference.



GE also unveiled its new HVDC Control system with digital measurement system fully based on IEC61850. The proprietary system eLumina™, will deliver 50% smaller footprint, 10 times more computing power, and improve operational efficiency. Prysmian Group Business lead Raul Gil, during his CIGRE presentation, mentioned the new cable laying vessel, which will replace Giulio Verne. The vessel is yet unnamed.

Yash Audichya

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## Learning at the Centre

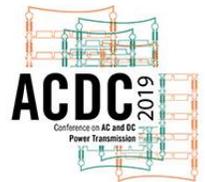
We'll be presenting our findings from the Centre at the RTDS® European User Group Meeting (UGM) and the IET ACDC 2019 conference. At both events, we will discuss installation and interfacing of HVDC control replicas highlighting some of the key lessons learnt from this process.

The UGM provides an opportunity to connect with other users of the RTDS® Simulator, explore new applications and stay informed on new developments. Plus, this a great opportunity to learn how the hardware is being used for new applications across Europe and the rest of the world to ensure that we are getting the most out of it.

ACDC 2019, the IET's AC and DC Power Transmission Conference showcases the very latest research, focusing on the impact of new challenges on the development of power transmission schemes that are arising from environmental, regulatory, political and social factors. Attendance will give updates on the latest advances in HVDC and HVAC technologies, including FACTS devices and learn more on the recent AC and DC projects being implemented worldwide.

If you would like to speak to us at either event please get in touch.

Ian Cowan



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## Recruitment Update

We have completed our selection process for three new Simulation Engineers who will be joining our team over the coming months. We are looking forward to welcoming them to the Centre, and expanding our team.

Simon Marshall

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