



# Newsletter



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## Control Systems Engineering

### Editorial

Dear All

We are pleased to publish the newsletter of Control Systems Engineering for the first quarter of 2012. We hope that you will find this newsletter informative. Your comments and suggestions are highly appreciated.

CSE is happy to announce the comeback of Mr. Tanvir Ahmed as Manager Sales & Service, and Mr. Fahad Javaid as Country Sales Manager, Supcon. We wish them a successful journey with CSE/SUPCON.

Mr. Eric Ji, Director Overseas Supcon visited us in the last week of February and held meetings with various clients. We are very grateful for his presence which has helped strengthen relationships with our clients and build their confidence on CSE/SUPCON.

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## CEO Visit to AOIP France

In January 2012, our CEO Mr. Hasan Kazmi visited AOIP France to attend the Export Distributor meeting. There were 40 representatives from 27 countries.

AOIP, established in 1896 in Paris, France, designs, manufactures and markets starters for asynchronous motors for 55 years. AOIP is also a renowned company for its broad line of instruments dedicated to temperature and process signals measurement for production, maintenance, and laboratories.

## Calibrators

### CALYS 150

#### 2 Channels High Accuracy Calibrator

- ✓ Simultaneous IN and OUT
- ✓ 2 measurement channels
- ✓ Protected for on-site use
- ✓ Easy-Connect system
- ✓ Data acquisition
- ✓ HART protocol transmitter automatic calibration
- ✓ 21 CFR part11 compliant



Calys 150 is a very high accuracy instrument for onsite calibration. Very easy to use, all necessary process functions embedded; make CALYS150 the perfect instrument for maintenance, quality control, and calibration. This robust and reliable calibrator (housing for protection, easy-connect system, high contrast backlit display), makes the job of several units in one instrument.

- Simulation, emission
- Pressure, temperature, process signal measurement

## PALMER WAHL INSTRUMENTS

Palmer Wahl Instruments is America's **first** thermometer company originated in Ohio, USA in 1836. Since that time, it has steadily evolved through product development geared exclusively towards industrial supply and process measurement.

**CSE is pleased to announce Palmer Wahl its Principal from January 2012.**

Below is the list of products in their production / supply line:-

1. Thermometer
2. Pressure Gauges (Digital / Analogue)
3. Infrared Thermometers (Different Ranges upto 3000°C)
4. Circular Chart Recorder
5. Data loggers
6. Thermal Image Camera
7. Thermowell
8. Hand Held (Portable) Meters & Probes



**Thermal Image Camera**



**Bimetal Thermometers**



**Pressure Gauges**



**Thermowell**



**Pressure Transducers**



**Chart Recorders**



**Heat Probers**

## Supcon wins their biggest order in Iran

We are pleased to share the great news that our Principal **SUPCON** has won the YADA OIL & GAS FIELD MAC (Main Automation Contractor) Project in Iran!

YADA Oil & Gas Field is one of the biggest un-developed oil & gas fields in the world with 3.2 billion barrels of recoverable oil and 80 billion cubic meters of natural gas reserves. As the MAC of this project, SUPCON will provide complete PCS, ESD, FGS, OTS, MMS, CIMS, HACS, LDS, HIPPS and related service for the project. The contract value is around 47 million USD, which is the biggest order SUPCON has won in process automation.

We believe the success of this project will build more confidence in all our clients on SUPCON, and help **CSE and SUPCON** set similar examples in Pakistan market.

## SUPCON-CSE win Olympia Chemical order

On 23<sup>rd</sup> December, 2011 CSE/SUPCON signed a contract with Olympia Chemicals Ltd. for 75 TPH Coal Fired Boiler automation using SUPCON's ECS-100 DCS. The boiler is manufactured by JINAN BOILERS and designed by SHAN DONG YANGGUANG ENGINEERING DESIGN INSTITUTE. Currently Olympia Chemical Engineers have completed the Factory Acceptance Test in Supcon China. CSE /SUPCON will begin commissioning of the DCS system in Mid April.

Olympia Chemicals' core business is manufacturing and marketing of Soda Ash and Sodium Bicarbonate. OCL is the second largest producer of Soda Ash and Sodium Bicarbonate in Pakistan. OCL started commercial production in 2000 with approximately 50,000 Tons annually and now OCL have reached a production capacity of 150,000 tons of Soda Ash and 15,000 tons of Sodium Bicarbonate annually.



## Application of Radar Level Drop in Cement Industry

- Tank: Vertical cylinder 20.5 m
- Customer: Remondis (Cement Recycling industry)
- Temperature: Ambient
- Device:
  - Connection: DN 80 PN 40
  - Antenna: Drop PP DN 80
  - Sealing: Viton



### 1. Background

A large recycling company manufactures cement as a raw product for use in a variety of its own products as well as for sale to other companies. The cement is stored in a large silo with a holding capacity of several thousand tons. Different batch sizes are taken from there for further processing.



### 2. Measurement requirements

In order to control production and ensure supply, the level of the cement in the silo (more than 20 m high) must be continuously measured. The product itself features some inherent challenges: cement is powdery and compresses easily, i. e. when it is being removed from the bottom of the tank, the level does not decrease evenly. Instead, deep pits form and large chunks stick to the walls. Cement has very low reflectivity (dielectric value approx. 1.8 – 1.9) and the atmosphere in the silo is extremely dusty. The request was for contactless level measurement which had previously been done using ultrasonic, but this method often failed due to the great amount of dust in the atmosphere and thus needed to be replaced. There is no compressed air supply on the roof of the silo.

### 3. KROHNE solution

An OPTIWAVE 6300 radar level meter was used for continuous, non-contact measurement. When it came to the antenna, a polypropylene drop antenna (specifically designed for solid

applications) with a nominal size of DN80 was used. The device was placed directly on the opening of the silo roof.

#### 4. Customer benefits

This solution allows the operator to monitor the cement level at any time and thus eliminates any danger of putting the production process at risk.

The OPTIWAVE 6300 provides stable, reliable measurement despite the harsh conditions in the silo. The ellipsoidal and completely enclosed shape of the antenna as well as its smooth surface prevents dust deposits on the antenna. No special dust protection or flushing system is required and the antenna features no moving parts. This eliminates the need for regular maintenance.



The low reflective surface of the product is reliably measured thanks to the high signal dynamic of the device. The FMCW technology is not affected by the angle of repose which means that the antenna does not have to be laboriously aligned. The device comes pre-configured; at the time of on-site start-up, only a few parameters such as silo height, block distance and cone shape were input per device.

#### 5. Product used: OPTIWAVE 6300 C

- Radar level meter for solid applications
- 2-wire FMCW 24...26 GHz radar
- Continuous, non-contact level measurement
- Specifically designed for measuring solids
- Basic version with DN 80 drop antenna measures up to a height of 30 m
- Pre-configured ex works
- Simple start-up thanks to the installation wizard and its prompting for the necessary parameters
- Also available with DN 150 drop antenna for measuring range up to 80 m

## CSE/SUPCON Seminar in OGDCL

SUPCON is the No.1 DCS Manufacturer in China, and has been working in Pakistan since 2005 with its Local Partner Control Systems Engineering.

SUPCON DCS Systems have been successfully running in Pakistan Industry like Cement, Paper, Power & Chemical. In April 2011 SUPCON launched its new release of DCS ECS-700 specially designed for Oil & Gas and Petrochemical Applications in International Market.



On 23<sup>rd</sup> February 2012, CSE/SUPCON organized a one day training and Demo Presentation for OGDCL Engineers.

Mr. Robin Li, Dy Chief Representative and Mr. Fahad Javaid, Country Sales Manager, Supcon gave a demonstration of the DCS Hardware and Software of ECS-700 and also elaborated the DCS application of a refinery unit to the OGDCL Engineers. More than 20 OGDCL Engineers participated from different sites and sections. Mr. Zafar Ahmad, DGM was present representing CSE.



OGDCL engineers showed great interest in the system and require a detail 3 -5 Days training in UET Lahore which will be conducted by SUPCON & CSE shortly.