WHO SHOULD ATTEND:

The “Can’t Miss” Safety Control Systems Conference is essential for anyone with a responsibility for the safety of a hazardous process or machinery installation including:

- Electrical and Instrumentation Engineers
- Chemical Engineers and Process Control Specialists
- Process Safety and Loss Prevention Managers
- Plant Managers and Process Supervisors
- Environmental Protection Officers
- Production Engineers
- Control System Integrators/DCS Software Engineers
- OHS and Environmental Risk Assessment Specialists
- Technologists & Technicians
- Government Safety Regulators/Inspectors

VENUE:

Ambrosia Hall, Midrand

SOUTH AFRICA

CONFERENCE:

21 & 22 July 2010

PRE-CONFERENCE WORKSHOP:

20 July 2010

Safeguarding Process Plants with Instrumentation and Controls

Presented by Edward Marszal

FOR MORE INFORMATION

Ph: 087 751 4394
Cell: 084 702 0107
cheryl@idc-online.co.za
or www.idc-online.com

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SEE BACK PAGE FOR DETAILS

BENEFITS OF ATTENDING:

- Update your knowledge on safety technologies for process and machinery protection
- Gain global best practice in safety control systems from international experts
- Learn about the life cycle approach to safety-instrumented systems through case studies and critical discussion
- Find practical solutions to your alarm problems
- See how IEC functional safety standards are being successfully applied to manage safety projects
- Learn about software tools to assist your safety projects
- Network with experienced safety experts and your peers
- See how optimal safety design can improve production and reduce costs

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INTRODUCTION TO SAFETY CONTROL SYSTEMS

Many industrial processes have the potential to harm people or the environment if something goes badly wrong. Every year, industry experiences catastrophic fires, explosions or toxic releases, but is always striving to avoid such incidents by providing extensive safety measures, often involving the application of automatic safety systems. This paper will cover the concept of tolerable risk and the factors which influence it.

This paper will be of interest to engineers, operations. Remote monitoring is used by experts to identify problems and assist the operator to rectify the situation. This paper will be of interest to engineers, product designers, safety officers and operational staff.

average frequency of the hazard occurrence. This evaluation is performed by a team of discipline experts led by a facilitator knowledgeable in the determination method. It is recognised that getting the right SIL results is not easy and can be affected by a number of issues. This paper discusses the Layer Of Protection Analysis method used in SIL determination, it outlines common pitfalls and ways to overcome them in order to produce results of the desired quality.

This conference presents an industry-wide forum to examine and discuss the latest international practices and standards in safety control systems. Case studies and practical applications will be presented by specialists experienced in safety life cycle activities such as a hazard and risk assessment and the determination of Safety Integrity Levels (SILs). Topics will be relevant to a wide range of industry sectors including machinery and automation plants, chemical processes, energy and power, pulp and paper and petrochemicals.

<table>
<thead>
<tr>
<th>Session</th>
<th>Topic</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>8.00am</td>
<td>Registration</td>
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<tr>
<td>8.30am</td>
<td>Opening Address</td>
<td>Terry Cousins - Director, TLC Engineering Solutions</td>
</tr>
<tr>
<td>8.45am</td>
<td>Best Practices in SIS Documentation from P&amp;ID through SRS (Safety Requirements Specification)</td>
<td>Edward Marszal - President, Kenexis - USA</td>
</tr>
<tr>
<td>9.45am</td>
<td>Developing a Safety Requirements Specification</td>
<td>Dick Perry - Control Systems Design Director, Fluor</td>
</tr>
<tr>
<td>10.30am</td>
<td>Morning Break</td>
<td></td>
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<tr>
<td>11.00am</td>
<td>Tolerable Risk - A State of Machine / Process Safety Nirvana</td>
<td>Ian Hetherington - Director, Vantage Control</td>
</tr>
<tr>
<td>11.45am</td>
<td>SIL Determination, Methods, Trends and Experiences</td>
<td>Owen-Taverner-Smith - Partner, Exida</td>
</tr>
<tr>
<td>12.30pm</td>
<td>Lunch</td>
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<tr>
<td>1.30pm</td>
<td>Documentation and Rationalisation as a Methodology - A Case Study at the Lethabo Power Station</td>
<td>Norman Narotam - P&amp;AS Automation Services</td>
</tr>
<tr>
<td>2.15pm</td>
<td>Safety Monitoring Systems for Bulk Explosives</td>
<td>Terry Cousins - Director, TLC Engineering Solutions</td>
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<tr>
<td>3.00pm</td>
<td>Afternoon Break</td>
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<tr>
<td>3.30pm</td>
<td>Using Energy Harvesting Technology in Safety Control Systems</td>
<td>Norman Jackson - Director, AGE Technologies</td>
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<tr>
<td>4.15pm</td>
<td>RFID Technology - Unique Mine Safety Solutions</td>
<td>Clive Wilmans - Managing Director, Core System Integration</td>
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<td>5.00pm</td>
<td>Close</td>
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</table>
### Conference Day 2 - 22nd July 2010

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speaker/Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30am</td>
<td>9</td>
<td>Burner Management Systems (BMS’s)</td>
<td>Dick Perry - Control Systems Design Director, Fluor</td>
</tr>
<tr>
<td>9.15am</td>
<td>10</td>
<td>SIL Verification using Reliability Calculations, Models and Failure Rate Data</td>
<td>Greg Chantler - Senior Safety Engineer, Eida</td>
</tr>
<tr>
<td>10.00am</td>
<td></td>
<td>Morning Break</td>
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<tr>
<td>10.30am</td>
<td>11</td>
<td>Managing Safety-Related Alarms</td>
<td>Ian Loudon - International Sales and Marketing Manager, Omniflex Pty Ltd</td>
</tr>
<tr>
<td>11.15am</td>
<td>12</td>
<td>Field Bus Technologies and Safety-Certified Networking Systems</td>
<td>Rolf Kistin - Manager - Factory Automation, Siemens</td>
</tr>
<tr>
<td>12.00pm</td>
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<td>Lunch</td>
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**SIS Final Element Diagnostics including the SOV, using a Digital Valve Controller**

**IPF Management at the Engen Refinery**

**DISCUSSION PANEL**

**Closing**

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**Sponsorship Opportunities**

Representing your business at the 2010 Safety Control Systems Conference will provide you the opportunity to reach key decision makers from a multitude of industries.

For more information on sponsorship and exhibition opportunities please contact Sarah Montgomery via email sarah.montgomery@dcd-online.com

All conference papers are reviewed and selected for their high quality and technical value by our panel of specialists experienced in the theory and practice of functional safety systems and instrumentation.
Safeguarding Process Plants with Instrumentation and Controls

Instrumentation and control equipment is frequently employed to safeguard process industry facilities against the risks of fire, explosion, and toxic exposure. A variety of different instrument types are deployed in various situations to provide a defense-in-depth approach where multiple independent protection layers result in more robust systems. The design of the variety of different instrumented safeguards are all based on standards that define the techniques required to assess the need for the safeguards, the required performance of the safeguard, and details for design, installation, and operation of the safeguards.

This workshop will review the full range of instrumented safeguards typically used in modern process plants. The workshop will begin with a brief overview of hazard analysis techniques and how they are employed to determine the need for (and potentially performance targets of) instrumented safeguards. Subsequently, instrumented safeguard design will be discussed for each safeguard category. Specifically, SIS design as per IEC/ISA 61511, Fire and Gas detection and suppression system design as per IEC/ISA 61511 and ISA Technical Report 84.00.07, alarm system design as per ISA 18.00.02, and a few additional standards that may be used in various process plant situations.

In order to maximize the impact of the seminar, all of the concepts and techniques will be demonstrated on a sample process facility. This single process facility will be the basis for all subsequent examples, and at the end of the workshop participants will provide examples of typical “design basis” documentation for all of the types of instrumented safeguards for the sample facility.

REGISTRATION FORM: 2nd Safety Control Systems Conference 2010

Simply complete this registration form online or return by fax or email

1. DELEGATE DETAILS

<table>
<thead>
<tr>
<th>COMPANY NAME:</th>
<th>CONTACT:</th>
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</table>

2. REGISTRATION & PAYMENT DETAILS

Prices shown are inclusive of VAT

- **20 JULY 2010 - Pre-Conference Workshop** (NO discounts for pre-conference workshop)
  - Safeguarding Process Plants with Instrumentation & Controls
  - R1710 x delegates = R

- **21ST & 22ND JULY 2010 - 2nd SAFETY CONTROL SYSTEMS CONFERENCE**
  - OPTION 1: NO Early Bird Discount - Book after June 16th
    - R5415 x delegates = R
  - OPTION 2: Early Bird Discount 20% - Book before June 16th
    - (SAVE R1083)
    - R4332 x delegates = R
  - OPTION 3: 3 for 2 Offer (SAVE R5415)
    - R10,830 x 3 delegates = R

Additional delegates: Corporate packages available upon request

TOTAL DUE = R

For Online Registrations: www.idc-online.com • Early Bird Discount Code - CF888 • 3 for 2 Discount Code - CF345

PLEASE NOTE: Full payment is required prior to the commencement of the conference.

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GENERAL INFORMATION

Confirmation Details
A confirmation & information letter will be sent to all delegates approximately 10 days prior to the conference. Please ensure that you provide both your mailing address and email address on the booking form.

Cancellation Policy
Full reimbursement will be accepted if written notification of cancellation is received by IDC Technologies on or before 1 July 2010. A fee of 20% will apply to any cancellations received between 2 July & 13 July 2010. No cancellation requests can be accepted after 14 July 2010; however from this date substitute delegates are welcome.

Venue
Ambrosia Hall
97 Allan Road, Glen Austin
Midrand, Johannesburg
Phone: 011 314-1651

Accommodation
Please call Mpmu Ndlovu on 087 751 4394 for a list of guest houses in the area.

Food and Beverages
All lunches, morning and afternoon refreshments are included.

Unable to Attend
If you are unable to attend the full conference program, contact us for details to attend individual sessions or to purchase the Conference Resource Kit.

Enquiries
Phone: 087 751 4394
087 940 2680
Cell: 084 702 0107

REGISTRATIONS

We encourage you to register early, as spaces are limited. Your payment must accompany the registration form in order for it to be processed and confirmed.

By Fax: 086 692 4368
By Mail: IDC Technologies PO Box 389 Halfway House Midrand 1685
By E-mail: cheryl@idc-online.co.za
On Our Web Site: www.idc-online.com

Your presenter:
EDWARD MARSZAL
Kenexis Consulting - USA
- President, Kenexis Consulting Corporation
- Award-winning Author of the “Safety Integrity Level Selection” textbook from ISA
- Prolific Author on SIS Topics including Technical Papers and Book Sections
- Licensed Professional Engineer (Ohio, Illinois)
- ISA 84 Expert Certification & ISA Fellow
- B.S. Chemical Engineering, The Ohio State University