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Ship to shore – remote ship diagnostics



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Precise timing in substation automation

6 GlobalRemote Industrial™ telemetry

Lars Bratthall, Lars Gundersen, Hai Nguyen, Jan-Fredrik Hansen, Jean-Jacques Maillet, Andreas Kuhs

ABB's Industrial™ architecture is now combined with GlobalRemote telemetry to provide remote diagnostics for ships far out to sea.

9 Precise time synchronization for automation purposes

Tor Skeie, Svein Johannessen, Trond Løkstad, Øyvind Holmeide

Substation automation demands precise time synchronization. Switched fast Ethernet provides an answer.

15 Powering Troll with new technology

Tom F. Nestli, Lars Stendius, Magnus J. Johansson, Arne Abrahamsson, Philip C. Kjaer
Motorformer™ and HVDC Light™ technologies allow power to be supplied from land to platforms offshore. Benefits are increased efficiency, cost savings and reduced environmental impact.

20 Working well: reliability analysis techniques for intelligent wells

Oil & gas operators have around 100 intelligent wells in place. But how do you determine the reliability of this new technology?

23 Downsizing 'topsides': substantial Capex reductions possible within five years

ABB's high-performance compact power automation and processing products result in lower Capex for oil & gas topsides.

26 RADAR™: advanced riser inspection

John Dunninghoo, Larry K. Harthorn

The RADAR™ drilling riser inspection tool is already saving operators time and money.

30 NuDeep™ technology for subsea development

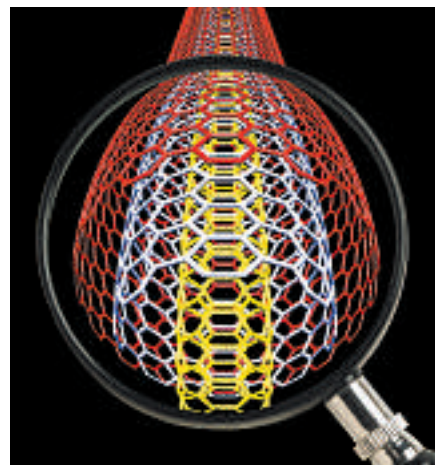
NuDeep™ ultra-deepwater equipment is designed to feel at home 10,000 feet down in the dark, chilly, hostile depths of the ocean.



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New switch acts at first signs of trouble



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SVC success in Namibia



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Nanotechnology

36 New ethylene technologies

A new family of solutions helps olefin plant operators increase production and at the same time save money.

38 Fast power switchover keeps production lines running

Luciano Di Maio, Carlo Gemme, Ralf Krumm

ABB's High Speed Transfer System not only switches almost instantly to an alternative supply in the case of power failure, but also has the ability to anticipate such problems.

43 ABB static var compensator stabilizes Namibian grid voltage

Luciano Di Maio, Carlo Gemme, Ralf Krumm

Namibia's power grid has long transmission lines which give rise to unusual resonance phenomena. A new SVC has now cured these problems.

49 Nanotechnology – from small dimensions to big business

Thomas Liljenberg, Olof Hjortstam, Silvia Volponi

Nanotechnology is one of the most promising new developments around. ABB experts in this field look at how the company is responding to this exciting branch of science.

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