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ABB Schweiz AG
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ABB Review/REV
CH-5405 Baden-Dättwil
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The ABB Review is published four times a year in English, French, German, Spanish, Chinese and Russian.

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ABB Ltd. Zurich/Switzerland

Printers
Vorarlberger Verlagsanstalt GmbH.
AT-6850 Dornbirn/Austria

Layout
DAVILLA Werbeagentur GmbH
AT-6900 Bregenz/Austria

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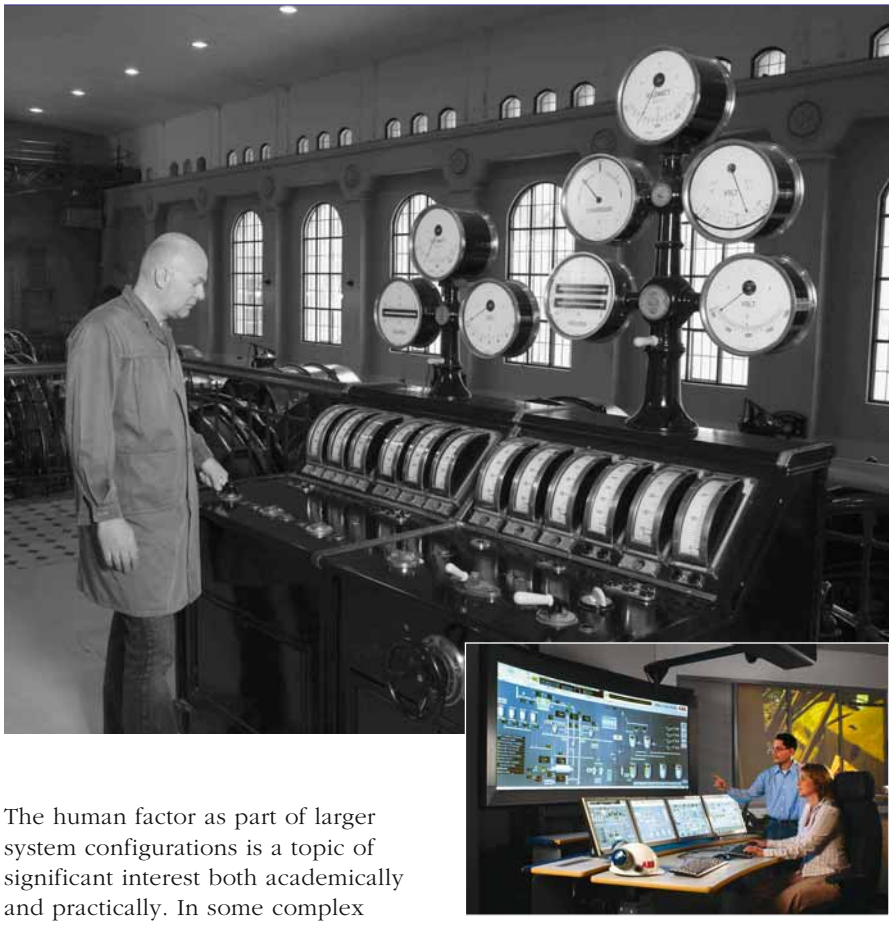
ISSN: 1013-3119

www.abb.com/abbreview

Preview 1/2007



The human factor as part of larger system configurations is a topic of significant interest both academically and practically. In some complex system applications, the human in the loop might be the weakest link and the greatest liability. In many systems, a system failure as a result of human error cannot be tolerated – production output, and more importantly, human lives may be at risk. The former category includes industrial manufacturing and power generation and distribution. The latter includes airplane cockpits, some industrial processes such as chemicals and nuclear, emergency systems of different types and traffic handling systems. Many methods have been adopted to minimize the risk associated with the human-in-the-loop issue, and indeed safe and secure operations of such systems are essential for a modern society. The more such applications are automated, the more the issue of the human factor becomes crucial. Both very fast processes such as electrical networks and much slower processes have their own complexities that need to be handled.

Areas of concern are decision support (including smart alarming), information visualization and ergonomic data presentation and ease of use from design to implementation. In the next issue of ABB Review with the theme "Human in the loop", we explore both academic research and practical implementations of recent innovations in these fields. For ABB, these topics are highly relevant to its businesses. As the world's leading automation supplier, the company needs to lead from the front.