HITACHI TECHNOLOGY
2012-2013

President's Message

Thank you for taking the time to review our special issue of *Hitachi Technology 2012-2013*. *Hitachi Technology* highlights the latest technological advancements at Hitachi across many of the company's different businesses. It is published annually as a special print edition of our technology journal, *Hitachi Review*, which is available on our web site at http://www.hitachi.com/rev/.

Today's world is changing rapidly. As a result, our society is being confronted with several serious challenges, such as how best to protect and conserve the environment, address the issues associated with population growth and rapid urbanization in emerging economies, and care for the aging populations in developed economies. Overcoming these challenges will require a comprehensive, global effort that incorporates a diverse range of innovations and solutions. It will also require careful consideration of local values and customs and the willingness to consider many different perspectives.

Hitachi has been focusing its efforts on the Social Innovation Business to help realize a more sustainable society. This business utilizes information technology (IT) to deliver new value in the field of social infrastructure. Through this business focus, we are seeking to satisfy the needs of various stakeholders and deliver impactful solutions by mobilizing Hitachi's diverse and unique technologies that support social infrastructure, including high functional materials and components.

This year's *Hitachi Technology* leads off with an article on our Smart City business entitled, "Building Livable Cities—Emerging Worldwide Concept of Smart Cities." It outlines Hitachi's vision for the development of Smart Cities, which is illustrated by projects being undertaken in different parts of the world. This is followed at the start of each section by Highlights 2012-2013, and I'll briefly introduce
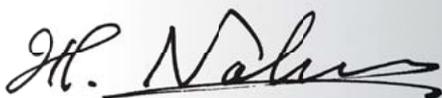
Achieving Sustainability by Leveraging Hitachi's Reliable Technology

some articles below. They describe the latest technologies, products, and solutions from various fields that are the subject of ongoing research and development, and are the foundation of Hitachi's Social Innovation Business.

・Information & Telecommunication Systems: IT platforms for the utilization of Big Data; New service models for wireless networks that are continuing to expand in scope.

・Power Systems: The recovery of thermal power plants in Japan after the Great East Japan Earthquake; The contribution that adjustable-speed pumped storage systems make to ensuring the stability of the power supply.

・Social Infrastructure & Industrial Systems: Global railway systems adapted to comply with international standards.

・Medical & Electronic Equipment: Curation equipment for the analysis of samples from the Itokawa asteroid developed by mobilizing Hitachi's knowledge from a diverse range of businesses.

・Research & Development: The role of the Hitachi Cambridge Laboratory in opening up the potential of spintronics; Breakthrough technology that helps reduce the size of inverters used in electric vehicles.

Based on our Corporate Credo of "contributing to society through the development of superior, original technology and products," and by pursuing the research and development of highly sophisticated, future-oriented technologies in a variety of fields, Hitachi is contributing to finding solutions to global challenges through our Social Innovation Business. Hitachi is firmly committed to helping the world achieve sustainable development. I hope that you will enjoy *Hitachi Technology* and put your trust in Hitachi and its ability to make positive contributions to our world, now and in the future.

Hiroaki Nakanishi
Representative Executive Officer and President