

# Remarks for Special Issue on Imaging and Recognition Solutions

The advances made in digital technologies and network technologies have paved the way for the widespread usage of digital cameras, smartphones and other devices throughout society and made enjoyment of video and images a part of everyday life. Videos project a vast range of information that can be captured by the human eye and ear. If we are able to develop technologies that enable information devices to “recognize” the useful information contained in these video data and then automatically provide them to users on demand, we believe that video and other images can become a far more beneficial to humans and the earth.

Also videos and other images not only bring enjoyment to the person who captured them, but now can be streamed and shared via the Internet with no delay, informing and delighting people all over the world. Imaging technologies also are increasingly playing an important role in corporate activities and supporting services essential to society. For example, when a person visits a hospital for a check-up, the resulting CT scan images, X-ray images and other imaging data are collected and added to the patient’s electronic medical records. When a traveler’s D/E (disembarkation/embarkation) card data are processed at the immigration clearance gate at the airport, the registered portrait photo is automatically retrieved by the system, ensuring accurate identification and preventing illegal entry or exit from the country. It is no longer uncommon to find the security of important facilities monitored by thousands of surveillance video cameras. Today imaging and recognition technologies are an integral part of not only society and corporate activities but also the lives of each individual.

Throughout our long history, beginning with our development of the NE-type phototelegraphic equipment in 1928 (Japan’s first device for the wired transmission of photographs and the forerunner of today’s FAX machines), NEC has been engaged in the development of a wide range of imaging-related information and telecommunications technologies and has provided users with products, solutions and services in fields from broadcasting and space-related technologies to computer, network and mobile phone technologies.

We approach development from the perspective of society at large, aiming to contribute to the creation of a safer and more secure world for all. In the field of broadcasting, we are providing press solutions that deliver news to waiting audiences with superior speed and accuracy. In the area of our satellite-centric space utilization technologies, we are continuing

to pioneer new development in telecommunications and earth observation with a focus on applications in the fields of global positioning and observation of meteorological, disaster and environmental phenomena.

We also tackle development from the perspective of corporate activities, seeking ways to contribute to enhancing the operations of our corporate customers. In the field of advertising, our digital signage solutions in rail stations, shopping centers and other locations where consumers gather or transit provide shoppers with product information complete with the necessary place, timing and content information. In the manufacturing and logistics industries, NEC provides solutions that support not only the on-site analysis of the working dynamics of the customer's manufacturing and warehousing facilities, but also the examination of improved layouts that are more eco-friendly and make the facility an easier place to work.

And we pursue development from the perspective of the lives of each individual, looking for technological solutions that will enrich their enjoyment of life. Medical diagnostic services that use image analysis technology and event/sales promotion systems that add to visitor enjoyment by using facial comparison technology to display characters that resemble the visitor are just a few examples of the new ideas NEC is offering the world.

The information and telecommunications technologies that support these imaging and recognition systems and solutions span a diverse scope of business from personal computers and mobile terminals to networks, servers and sensor devices. The convergence and integration of all these into a unified technology is expanding the breadth of imaging and recognition applications. In essence, this unified technology is the realization of NEC's "C&C" vision. NEC boasts many technologies that are recognized as number one in the world such as our face recognition and fingerprint identification technologies. Leveraging these and other strengths of NEC, we are committed to providing highly innovative products and advanced technologies that empower people around the world to use imaging technologies safely, securely and comfortably.

In this special issue, we would like to introduce the reader to our imaging and recognition solutions and the wide array of products and technologies that comprise them. Inspired by our hopes and dreams of making images a more useful tool and resource in our vision to realize an information society friendly to humans and the earth, NEC shall continue to innovate and strengthen our technologies. On behalf of all of us at NEC, I hope that you will continue to lend us your invaluable guidance and encouragement.

**SHIMIZU Takaaki**  
Senior Vice President



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NEC's Pursuit of Imaging and Recognition Technologies

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Flow Line Analysis Technology for "Visualizing" Human Behavior and Utilization Examples

Video Identification Solution Using a "Video Signature"

#### Image accumulation/processing

Evolution of File-Based Image Archiving System

Broadcasting Service Platform Solution of the Next Generation

Total Nonlinear Editing Solution that Supports News Production Workflow

Rich Graphics Solution for Embedded Device - GA88 Series IWAYAG -

Development of Ultra-low Latency Codec

#### Image distribution

Wearable Unified Communication for Remote Tour Guide and Interpretation Services

Trends in Digital Signage Solutions

Next Generation Communication with a "Telecommunication Robot"

### ◇ General Papers

Development of a High-Intensity Projector Using LED Light Source

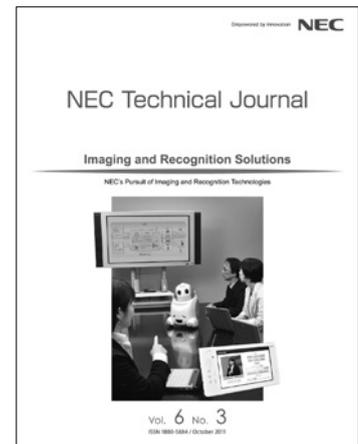
Development of an Environmentally Conscious LCD Projector

Improved Projector Functions Based on System Linkage with PC

The MultiSync PA Series of Professional Display Offers Both Accurate Color Reproduction and High Usability

Development of a Video Wall Display System Using Ultrathin-Bezel LCD Panels

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