



## Preface

### Special Issue on Smart Mobility

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Traditionally, drivers of commercial vehicles depended on the knowledge gained from driving the same routes for many years to inform them of where children are likely to rush out onto the street. In the future, data obtained from many cars and sensors will enable anyone to drive safely and pleasantly even when driving along a new route. In the future, we can expect the “hyperconnected world” in which all manner of things are interconnected through the network to have a profound effect on all of society. In the field of transportation and mobility, “smart mobility” has the potential of producing great value by interconnecting people and infrastructures such as automobiles, roads, and railroads through the network and making use of massive amounts of data collected from a huge number of things.

The world population already exceeds 7 billion and looks to reach 9 billion by 2050. At the same time, urbanization is progressing throughout the world: 60% of the world’s population is projected to be concentrated in cities by 2030 and nearly 70% by 2050. In such an environment, the network of roads and railroads that supports the movement of people will be hard pressed to keep up with the increase in demand. Today, developing countries are already facing severe traffic jams on a daily basis, and the time wasted in moving from place to place hinders economic development while aggravating environmental problems such as atmospheric pollution. Smart mobility can provide solutions to these problems by allocating optimal means of movement on the basis of diverse types of data such as the demand for movement by people and things, current traffic conditions, and the operating status of public transit.

This revolution will require huge amounts of real-time data collected from a wide variety of sources throughout a city, but the manual analysis of that data based on experience and intuition is no longer feasible. There is therefore an urgent need for innovation in data analysis that makes use of information and communications technology (ICT). For example, simulations have shown that on-demand transportation technology now being researched by Fujitsu can be used to reduce wasted movement of vehicles and improve the efficiency of a city’s transportation

systems by as much as 80% while satisfying the demand for various types of movement.

In the hyperconnected world, certain types of technologies will be particularly important. These include the Internet of Things (IoT), which connects all sorts of things to the Internet and gathers data from those things, analytics, which analyzes large amounts of data to derive optimal solutions, and a big data processing infrastructure, which integrates those technologies. Fujitsu is implementing IoT, analytics, and big data technologies in “people, information, and infrastructure”—the three key elements of the transportation and mobility field—with the aim of facilitating innovation in our customers’ business operations. This special issue introduces a wide range of solutions and technologies that can drive innovation in this field.

The 2020 Tokyo Olympics and Paralympics are expected to attract more than 900 000 overseas visitors per day to the Tokyo area to attend the events and see the sights. This will provide a great opportunity to assess the true value of smart mobility in responding fully to diverse demands for movement and in orchestrating warm and friendly services in multiple languages. Fujitsu is committed to fostering customer innovation in people, information, and infrastructure and achieving safe, pleasant, and highly efficient smart mobility.