## Future Research and Development for Natural-hazard and Risk Mitigation

## Tomoyasu SUGIYAMA

In Japan, the disaster prevention technology in railway has been developed by many disaster experiences since the beginning of its operation. It was reported various parts of Japan suffered by an earthquake, some heavy rains and other aspects, last year, however, the damage of railway was found to be minimized fortunately. This result obviously demonstrates the past developments on the disaster prevention technology. On the other hand, the level of natural forces bring disaster has become slightly larger, and the further progress of the damage estimation technology that accepts the changing of natural forces is expected for the future railway disaster prevention. This paper describes the recent state and the future prospects of the research and development on the disaster prevention in the Railway Technical Research Institute.