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FOREWARD

The main objects of earthquake engineering in the field of mechanical engineering have been facilities of heavy industry such as nuclear power plants, petrochemical plants and so forth. The main aseismic technology employed there has been the technology to increase structural strength in order to withstand the transmitted force.

Recently, as electronics and information industries grow rapidly and play an important role in the society, the new objects of earthquake engineering appear in the field of mechanical engineering. They are information processing facilities including computer system and semiconductor manufacturing facilities for IC devices. If these facilities or the function of them are broken by earthquake attack, not only companies involved but also the society will receive severe damage. These objects will be more important in the near future for earthquake engineering.

And then, the main aseismic technology employed to protect those facilities from earthquake attack will be the earthquake isolation technology which makes the transmitted force smaller. In Japan, earthquake isolation floors have been already used for many computer systems, and application of earthquake isolation devices to semiconductor manufacturing equipment has started. Though, at the present time, application of earthquake isolation technology is restricted to equipment, it will extend to the whole building containing the equipment.

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