2021

Title of Research Subject	Practical implementation of community-based road design in small cities in India
Background and Objective	More than 150,000 people have died in traffic crashes in India, and analyses in India indicate that economic losses from traffic crashes are equivalent to 3%-5% of gross domestic product (GDP). So far, the International Association of Traffic and Safety Sciences (IATSS), in collaboration with the Indian Institute of Technology, has made proposals on planning and designing of community-based safe cities. Some of these measures can be implemented in the short term, while others require time over the long term, such as improving the atmospheric environment and improving transportation networks. In this project, based on a joint project with the Indian Institute of Technology, which has been implemented so far, we will aim at the practical implementation of intersection improvement rooted in the community by focusing on improving the safety and smoothness of intersections in small cities such as Patiala and Bulandshahr.
Expected results (including foresight and practicality)	High traffic engineering technical skills are required to improve road intersections in both skills for safety and smoothness of traffic flows. In Europe and the United States, the Road Safety Audit (RSA) system has been adopted, and third parties that are different from traffic managers and road managers have pointed out the need for improving roads. This project is expected to improve traffic safety measures for local roads in terms of technical capabilities by studying the possibility of improving intersections in small Indian cities. Furthermore, by conducting traffic condition surveys before and after the improvement of the intersections, it is possible to show a method of analyzing the effects of the intersection measures. Moreover, by grasping the effects of traffic crash countermeasures quantitatively, it will become possible to clearly indicate the need for future intersection improvements in small cities. Through horizontal deployment of such a method to other intersections where there are many problems, it is possible to reduce traffic crashes and alleviate traffic congestion in India.