博士学位論文 審査結果の要旨

Abstract of review result

芝浦工業大学大学院 理工学研究科 博士(後期)課程

Doctoral thesis defense committee

博士学位論文審査委員会

Main examiner	
主査	HENRY Michael
Examiner	
審査委員	IWAKURA Seiji
Examiner	
審査委員	IYODA Takeshi
Examiner	
審査委員	SHIDE Kazuya
Examiner	
審査委員	HORITA Masahide
Examiner	·
審査委員	

氏 名 Applicant's Name	Chhabi Lal PAUDEL
論文題目 Thesis title	Evaluation of factors affecting implementation delay of highway infrastructure projects and its consequences in Nepal

〔論文審査の要旨〕

Abstract of review

The final defense was held on Tuesday, July 9, with all five committee members in attendance on-site. Approximately ten SIT students and staff also joined on-site.

The candidate began by giving a 60-minute presentation on his research achievements. He first reviewed the importance of road infrastructure and the implications of project delay, and then explained the current project management environment in Nepal. Next, he introduced the indicator set formed for evaluating the factor affecting project delay, followed by the data collection methodology, which aimed to evaluate the effects and consequences of project delay based on actual contract data from road and bridge projects in Nepal. The first part of his analysis focused on identifying critical factors affecting project performance, which was measured by time delay relative to the original contract length, using statistical and machine learning techniques, followed by delay prediction modeling using the same techniques. The prediction models with the highest accuracy were then used to demonstrate how project delay may be estimated, and appropriate countermeasures considered, at the project planning stage. In the next phase of his study, the candidate explored three impacts of project delay: cost overrun, loss of benefit, and construction company performance. Finally, he introduced the results of a survey on project delay carried out with stakeholders in Nepal, which identified in greater detail the social perception of factors leading to project delay, and compared the survey results to the contract analysis results.

Comments and questions from the examiners focused on the differences between road and bridge projects, the local vs. international context of the results, and other consequences that may be considered in the future. They also requested that the candidate improve the readability of the later chapters of his thesis. It was further noted that, while this study empirically clarified the factors leading to project delay, it did not dig deeper into the "why" underlying the project delay, which should be considered in future work.

Overall, it was felt that there was great value in the research, especially with regards to the comparison of the contract data analysis and survey results, and the committee members unanimously agreed that the candidate passed the final examination of his doctoral thesis.