The execution of a construction project involves a combination of clients, designers, constructors and suppliers. Such multi-disciplinary characteristics pose challenges to the management, who secure appropriate engineers / managers for projects at different levels. Even after the careful recruitment of field engineers, it becomes very difficult to retain them for various reasons.

The training and education of these construction managers, and project management strategies, have traditionally focused on the issues of structuring and planning of the operations, with relatively little attention being paid to the retention of human resources.

The main objective of this study is to explore the critical factors influencing the migration of Engineers in the construction industry, and also to identify the factors promoting the retention of engineers.

Critical factors are extracted through an extensive review of various previous works. The construction of the questionnaire survey is divided into three parts, namely respondents’ profile, intention factors for migration, and factors promoting retention of engineers.

The questionnaire survey was administered to professionals like project managers, planning engineers, and site engineers. The respondents’
responses to the survey were collected and analyzed, using the SPSS (statistical package for social science) software.

The positive success factors were derived using the statistical analysis, viz. the ANOVA, t-test and F-test. Further, the migration and retention factors were grouped under six groups’ perspectives and these were analyzed to identify the major contributing group, using statistical analysis.

The study further developed two models, the first model for generating the migration / retention indices to identify the intention of migration in the existing engineers, and the other model to estimate the migration probability of the newly recruited engineers, using the discriminant and logit analyses. The discriminant analysis was carried out based on the respondents’ background information, their responses to the critical factors for migration and retention, and answer on migration in current employment. The Logit analysis was done, based on the respondents’ background information and their responses for answer on migration in current employment. Both these analyses were used to seek the strongest predictor of the migration of engineers, and to identify the intention of migration of the engineers in the construction organization.

The results of the study highlighted the critical factors contributing to the migration of engineers, and the remedial steps for retaining those engineers. Moreover, the study gives suggestions for construction companies to identify their existing engineers’ intentions, and how to recruit new engineers for their organization.