

# A Study on the Estimation of the Number of People Through Photographs

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In the completion of a big festival that involves many people, the number of participants will be announced. There could be up to 5 times differences in estimation, Therefore in this study, we designed a mathematical method for estimating the number of people in the event more precisely through photographs. We selected the time when people are mostly gathered. In addition, we noticed that the area in the photograph is different from the actual area(festival). To amend this error, we considered the ratio of the area in the photograph to the actual festival area. Finally, we divided the area in the photograph that have same actual area and organized the population of each section to estimate the number of people statistically.