



Istanbul Technical University
Department of Civil Engineering
Hydraulics and Water Resources Engineering Graduate Program
Stochastic Modelling Techniques in Hydrology
Spring Semester

Assignment-6

1. Obtain a time series and take the crossing level according to the mean, mode, median, 70%, 80% and 90% values of the time series, and compute run length and run intensity. Also, calculate coefficients of the autorun (r_k) for the lags (up to lag 6) and for every single crossing level.
2. Plot histogram of run length and run intensity for each crossing level. Also determine the characteristics of the run length and run intensity (mean, median, mode and standard deviation) for crossing level at the mean, mode, median, 70%, 80% and 90% values.
3. Draw the relationship between the coefficients of autorun and the lags obtained in question-1.