

Decision Making in Assessing Process Capability Indices

Chin-Chuan Wu

Tamkang University

R.O.C.

Kuen-Suan Chen

National Chin-Yi Institute of Technology

R.O.C.

Hsin-Lin Kuo

Tamkang University

R.O.C.

Abstract

A process capability index is a function of some parameters of some involved distribution and it specifies a quality characteristic. The process capability indices C_p , C_{pk} and C_{pm} have been used in manufacturing industries to provide a quantitative measurement of the potential performance of the manufacturing. These indices are easy to apply. Most studies on process capability indices are focusing on point estimates, which may result in misleading assessments of process performance. In this paper, we consider C_p , C_{pk} and C_{pm} , and develop a simple and convenient procedure for decision making in assessing process capability.

Keywords: Process Capability Indices, Process Performance, Testing Approach.