



Q

Home ► All Journals ► Engineering & Technology ► Quality Engineering ► List of Issues ► Volume 16, Issue 4 ► A Distribution-Free Shewhart Quality Con ....

Quality Engineering > Volume 16, 2004 - Issue 4

1,0101250ViewsCrossRef citations to dateAltmetric

**Original Articles** 

## A Distribution-Free Shewhart Quality Control Chart Based on Signed-Ranks

Saad T. Bakir Ph.D. 🜄

Pages 613-623 | Published online: 15 Feb 2007

**G** Cite this article **I** https://doi.org/10.1081/QEN-120038022



alternatives. Efficiency studies show that the proposed chart is more efficient than the traditional Shewhart X-bar chart under heavy-tailed distributions (the double exponential and the Cauchy) but is less efficient under light-tailed distributions (the uniform and the normal).

## Keywords:

| Average run length   | Control sequence | False alarm rate | Nonparametric | Outliers | Robustness |
|----------------------|------------------|------------------|---------------|----------|------------|
| Wilcoxon signed-rank | statistic        |                  |               |          |            |
|                      |                  |                  |               |          |            |

## Related research (

| People also read | Recommended articles | Cited by<br>125 |
|------------------|----------------------|-----------------|
|------------------|----------------------|-----------------|



| Information for            | Open access          |
|----------------------------|----------------------|
| Authors                    | Overview             |
| R&D professionals          | Open journals        |
| Editors                    | Open Select          |
| Librarians                 | Dove Medical Press   |
| Societies                  | F1000Research        |
| Opportunities              | Help and information |
| Reprints and e-prints      | Help and contact     |
| Advertising solutions      | Newsroom             |
| Accelerated publication    | All journals         |
| Corporate access solutions | Books                |

## Keep up to date

Register to receive personalised research and resources by email

🔛 Sign me u

