Electron. J. Math. Phys. Sci., **2002**, *Sem. 1*, 9-15

Electronic Journal of
Mathematical
and Physical Sciences
EJMAPS
ISSN: 1538-3318
www.ejmaps.org

Bayesian Economic Cost Plans II. The Average Outgoing Quality

Abraham F. Jalbout [1]*, Hadi Y. Alkahby [2], Fouad N. Jalbout [3], Abdulla Darwish [3]

[1]Department of Chemistry, University of New Orleans, New Orleans, LA 70148-2820 USA., E-mail: Ajalbout@ejmaps.org
[2]Department of Mathematics, Dillard University, New Orleans, LA 70112 USA
[3]Department of Physics and Engineering, Dillard University, New Orleans, LA 70112 USA

*Author to whom correspondence should be addressed. [§]Speaker at the 16th Annual Conference on Applied Mathematics (CAM), University of Central Oklahoma, February 22-23, 2001

Received: 14 December 2001 / Accepted: 5 January 2002/Published: 15 January 2002

Abstract: In recent years researchers in various quality control procedures consider the possibility of inspection errors as an important issue. The presence of these errors leads to changes in the so-called operational characteristic (O.C.) control curve, and as a result the average outgoing quality of an industrial process. We present a new mathematical model that can be applied to calculate such quantities as the expected number of defective items replaced in an accepted lot, and other functions of this process.

Keywords: Inspection Errors, industrial process, Bayesian methods, statistics
AMS Mathematical Subject Classification: 46N30, 62-06,62P30

© 2002 by EJMAPS (http://www.ejmaps.org). Reproduction for noncommercial purposes permitted