

Reading Material for Engineering & Industrial Statistics

Jorge L. Romeu, Ph.D.
Emeritus, SUNY/Adjunct Professor, SU
romeu@cortland.edu
<http://web.cortland.edu/romeu/>

Quality and Reliability Institute Web page:
<https://web.cortland.edu/romeu/QR&CII.htm>
DSIAC Web Site:
<https://www.dsiac.org/resources/journals/legacy/>

The statistics papers below are used in ECS526: industrial statistics.

Engineering Education:

Teaching Engineering Statistics to Practicing Engineers
http://www.stat.auckland.ac.nz/~iase/publications/17/4A1_ROME.pdf

Statistical Education of American Engineers
<http://web.cortland.edu/romeu/StatEdAmerEng2012Q2-art3.pdf>

Professional Organizations and the Learning of Stats after College
Revista Empresarial Inter-Metro; UIA-PR
<http://ceajournal.metro.inter.edu/spring13/romeujorge0901.pdf>

Group Learning, Contextual Projects, Simulation Models and
Student Presentations in Enticing Engineering Statistics Students.
<http://ecs.syr.edu/faculty/romeu/ASAECSEngEd.pdf>

The Juarez Lincoln Marti International Education Project:
An Example in Statistical Education and Research
<http://www.stat.auckland.ac.nz/~iase/publications/3/3041.pdf>

Descriptive: EDA and Distribution Identification:

Data Quality and Pedigree
AMPTIAC Material Ease

Random Variables and Statistical Distributions:

A) AMPTIAC Material Ease.

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.167.5518&rep=rep1&type=pdf>

B) RAC Journal

Empirical Assessment of Normal and Lognormal Distribution Assumptions.
RAC START. Volume 9, Number 6.

Statistical Assumptions of an Exponential Distribution.
RAC START: Volume 8, Number 2.

Empirical Assessment of the Weibull Distribution.
RAC START. Volume 10, Number 3.

Graphical Comparison of Two Populations.
RAC START. Volume 9, Number 5.

Inference: Estimation and Testing:

Statistics II: On Estimation and Testing

A) RAC Journal (Page 4)

B) AMPTIAC Material Ease

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.167.5974&rep=rep1&type=pdf>

Statistical Confidence.
RAC START: Volume 9, Number 4.

The Chi-Square: a Large-Sample Goodness of Fit Test
RAC START. Volume 10, Number 4.

Anderson-Darling: A GoF Test for Small Samples Assumptions
RAC START. Volume 10, Number 5.

The Kolmogorov-Smirnov: a GoF Test for Small Sample Assumptions
RAC START. Volume 10, Number 6.

Quality Control Charts
RAC START. Volume 11, Number 4

OC Function and Acceptance Sampling Plans
RAC START. Volume 12, Number 1

Determining the Experimental Sample Size
QR&CII Tutorial. Vol. 1 No. 1.
<http://web.cortland.edu/romeu/ExperSampSizeQR&CII.pdf>

Understanding Binomial Sequential Testing
RAC START. Volume 12, Number 2

Understanding Exponential Sequential Tests

Modeling: Regression and Analysis of Variance:

Statistics III: Modeling with Regression and ANOVA
AMPTIAC Material Ease
<https://pdfs.semanticscholar.org/02c0/0a74bc3c94c8179d6f55abc701b0e7032573.pdf>

Journal of the Reliability Analysis Center. Vol. 9, Number 4.

On Regression Analysis

RIAC RelTique. Vol. 1, No. 1.

http://web.cortland.edu/matresearch/RELTIQUES_V1N1.pdf

Combining data.

RAC START. Volume 11, Number 2.

MINITAB and Pizza: A Workshop Experiment

Journal of Educational Technology Systems (JETS)

<http://web.cortland.edu/romeu/Minitab&Pizza.pdf>

https://www.researchgate.net/publication/237389660_Minitab_and_Pizza_A_Workshop_Experiment

Measuring Cost Avoidance with Messy Data

Proc. of the 2004 Reliability and Maintainability Symposium (RAMS).

<http://web.cortland.edu/romeu/RAMSPaper.pdf>

Design and Evaluation of Aquatic Ecosystems via Simulation

Federal Conference on Statistical Modeling

<http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.105.349>

Design of Experiments for Reliability Improvement:

Fractional Factorial Designs

<https://www.quanterion.com/design-of-experiments-for-reliability-improvement/>

Reliability Modeling and Analysis:

Reliability Estimations for Exponential Life

RAC START. Volume 10, Number 7.

Censored Data.

RAC START. Volume 11, Number 3.

Understanding Series/Parallel Systems

RAC START. Volume 11, Number 5.

Understanding Availability

RAC START. Volume 11, Number 6.

Understanding Logistics

RIAC RelTique. Vol. 1, No. 3.

http://web.cortland.edu/romeu/LogisticsREL_V1N3.pdf

Understanding Binomial Sequential Tests

RAC START Vol. 12, Number 2

A Discussion on Software Reliability Models
Journal of the Reliability Analysis Center. Vol. 8, Number 1.

Determining the Experimental Sample Size.
Journal of the Systems Reliability Center (SRC)
3rd Quarter 2005; pp. 11-21

Use of Bayesian Techniques for Reliability
RAC START. Volume 10, Number 8.

Operations Research and Statistics Techniques:
a key to Quantitative Data Mining
<http://web.cortland.edu/romeu/ORStatTechInDataMine.pdf>

Determining the Experimental Sample Size.
Journal of the Systems Reliability Center (SRC)
3rd Quarter 2005; pp. 11-21

Understanding Availability
ASQ Statistics Division Newsletter
Vol. 24, No. 1: Fall 2005 (pp. 4--10)

The Links/urls of these papers can be found in (1) the Quality and Reliability Institute:

Web page: <https://web.cortland.edu/romeu/QR&CII.htm>

Or in the RAC/AMPTIAC Journals that appear in the [DSIAC Web Site](https://www.dsiac.org):

<https://www.dsiac.org/resources/journals/legacy/>

Updated VIII/2021