Here we submit the final report for research carried out at the Department of Statistics, University of Missouri-Columbia during the period October 1, 1992 - July 31, 1994. During this period the Principal Investigator (PI), A. P. Basu, along with his collaborators considered a number of problems in reliability theory. A. P. Basu edited the research monograph "Advances in Reliability" (1993), which has been published by North-Holland. Six refereed papers also were published. The titles of these papers are given below.

1. Life Testing and Reliability Estimation with Asymmetric Loss Function
2. On a test for exponentiality against Monotone Failure Rates
3. Bayesian Approach to Some Problems in Life-Testing and Reliability Estimation
4. Characterizations of a Family of Bivariate Exponential Distributions
5. Bayesian Reliability of Stress-Strength Systems
6. Some Problems of "Safe Dose" Estimation

Some of the research areas are of interest to researchers at Rome Laboratory, Griffiss Air Force Base, New York.
A. Publications in peer-reviewed professional journals and refereed book chapters during the reporting period, 1 October 1992 through 30 September 1993.

Book Edited:

Book Chapters:
   • Basu, A. P., Life Testing and Reliability Estimation with Asymmetric Loss Function.
   • Basu, A. P., On a test for exponentiality against Monotone Failure Rates.
   • Basu, A. P., Bayesian Approach to Some Problems in Life Testing and Reliability Estimation.
   • Basu, A. P., Characterizations of a Family of Bivariate Exponential Distributions.
   • Basu, A. P., Bayesian Reliability of Stress-Strength Systems.
   • Basu, A. P., Some Problems of “Safe Dose” Estimation.
B. Number of additional researchers working with the Principal Investigator

Faculty one, A. P. Basu

Postdocs 0
Graduate Students 1
Other 0

C. Professional honors received by all of the above listed contributors

Asit P. Basu was elected Fellow of the following societies:

1. American Association for the Advancement of Science, 1987
3. Institute of Mathematical Statistics, 1983
and also was elected