

All the research outputs would have given new insights to the reliability and survival analysis researchers.

7.2 Future Directions

Some of the research works that can be addressed in future is given below:

- New distributions using PGDUS transformation can be introduced based on other existing distributions as baseline distributions like inverse Kumaraswamy, inverse Weibull, KM transformation distributions etc.
- Stress-strength reliability estimation of the proposed PGDUS transformed distributions can be addressed.
- Bivariate and multivariate extensions to the proposed BS distribution can be explored in detail.
- Regression models and diagnostics can be developed based on the ν -Birnbau-Saunders distribution in both uncensored and censored data.
- Bayesian approach to the stress-strength model given can be studied.
- The SSALT models can be designed that utilize type-II Gumbel distributions under censoring schemes such as type-I censoring, hybrid censoring, progressive censoring, etc., using different models such as cumulative exposure model, proportional hazard model, Khamis-Higgins model, etc.
- Inference for the SSALT model in the presence of competing risk model can be introduced.