

Pre-Conference Workshop
on
Applications of Survival Analysis in Medical Research

23rd November 2022

Who can be the Participant in the workshop?

PG students, Research Scholars and young faculty members

What will they learn with this workshop?

At the end of this workshop the participants should be able to

1. Distinguish the survival data/time to event data
2. Explain the concept of censoring and know various types of censoring.
3. Know Some commonly used parametric families of probability distributions
4. Obtain parametric estimates of survival function, hazard function, mean, median, and variance etc of survival times based on complete and censored data.
5. Obtain non-parametrically estimates of survival function, mean of survival times based on complete and censored data.
6. Compare two survival distributions based on samples
7. Formulate situations involving survival data with covariates as Cox- regression problems. Build, estimate and assess the fit of Cox regression model under various scenarios.

**Pre-Conference Workshop on
“Survival Analysis”
23rd November 2022
Venue : (Time : 9.00AM to 5.00PM)**

TIME	CONTENTS	RESOURCE PERSON / FACULTY
08.00 AM - 09.00 AM	Breakfast and Registration	
09.00 AM - 09.15 AM	Inauguration	
09.15 AM - 10.00 AM	Introduction to Survival Analysis <i>Survival data/Time to event data, examples, concept of probability, concept of random variable, survival function and hazard function, parameters of interests</i>	S.B. Mahadik
10.00 AM -10.45 AM	Censoring <i>Concept of censoring, various types of censoring schemes, various types of censored observations, need of special treatment for the analysis of data with censored observations</i>	C. G. Gardi
10.45 AM - 11.00 AM	Tea break	
11.00 AM - 11.45 AM	Parametric analysis of Survival data-I <i>Some parametric families of probability distributions, concept of point estimation and confidence interval estimation of parameters based on sample, introduction to likelihood function and method of maximum likelihood</i>	C. G. Gardi
11.45 AM - 01.00 PM	Parametric analysis of Survival data-II <i>Estimation of survival function, hazard function, mean, median, variance etc based on complete and censored data, some examples. Illustration with SPSS software.</i>	C. G. Gardi
01.00 PM - 01.30 PM	Lunch break	
01.30 PM - 02.15 PM	Non-parametric analysis of Survival data-I <i>Non-parametric estimation of survival function in case of complete data and censored data (Actuarial estimator, Kaplan-Meier estimator), examples, Illustration with SPSS software.</i>	S. D. Pawar
02.15 PM - 03.00 PM	Non-parametric analysis of Survival data-II <i>Non-parametric estimation of the mean of the distribution, nonparametric comparison of two survival distributions (graphical comparison, Mann - Whitney - Wilcoxon's test, log-rank test), examples, Illustration with SPSS software.</i>	S. D. Pawar
03.00 PM - 03.15 PM	Tea break	
03.15 PM - 04.00 PM	Analysis of survival data with covariate-I <i>Concept of covariates, model formulation, Proportional Hazards Model, estimation of parameters in model and their interpretation</i>	S. S. Sutar
04.00 PM - 04.45 PM	Analysis of survival data with covariate-II <i>Tests for significance of the parameters, validation of the proportional hazards assumption using graphical and analytical test, examples, illustration with SPSS software.</i>	S. S. Sutar
04.45 PM - 05.30 PM	Feedback & Concluding ceremony and Distribution of Certificates	Conference secretariat

About Resource Persons:

S. B. Mahadik: Professor in Statistics and Head, Department of Statistics, Shivaji University, Kolhapur

C. G. Gardi: Assistant Professor in Statistics, Department of Statistics, P.A.H. Solapur University, Solapur

S. S. Sutar: Assistant Professor in Statistics, YCSR, Shivaji University, Kolhapur

S. D. Pawar: Assistant Professor in Statistics, Department of Statistics, Shivaji University, Kolhapur