



Professional Education and Training

Short Course Programme

**Statistical Analysis of Functionability Data**

**Introduction**

MIRCE™ Probchar Software is a Windows-based tool for statistical analysis of Functionability (Durability, Maintainability, Supportability). It has been used widely by thousands of engineers and managers in manufacturing, education, defence, aerospace, automotive, construction, transportation, utilities, communication, marine and many other commercial and governmental environments since its development by Dr J Knezevic in 1992 in its original MS DOS version. This course introduces participants to the software and how it can be effectively applied. MIRCE™ Probchar Software can be used to analyse existing test data, field data or to make use of engineering judgement to generate accurate predictions of durability and reliability measures the input information necessary to run majority of well-known and used software among reliability, availability, maintainability, supportability a similar type of practitioners world wide.

**Objectives**

By the end of this course you will be able to -

- Understand the statistical principles used in the software
- Select the best fit probability distribution among the four most frequently used: Exponential, Normal, Lognormal and Weibull
- Determine the best fit parameters (scale, shape, and location)
- Verify best-fit data using the Kolmogorov-Smirnov Test
- Calculate well-known probability functions (PDF and CDF)
- Determine summary measures (Mean and Standard Deviation)

**Training Package**

- **One copy of the MIRCE™ Probchar Software** for individual use in business or private environment
- Three day's training for one person in the basic principles and practical application of MIRCE™ Probchar software
- Example input data files relating to:
  - Time to Functionability Event for LRUs and Systems, for a single causal mechanism
  - Time to Functionability Event for LRUs and Systems, for multiple causal mechanisms
  - Time Between Functionability Events f LRUs and Systems
- Opportunity for participants to bring their own data for analysis
- Glossary of relevant terms and definitions
- Training materials
- Lunch and light refreshments

**Software Features**

- Easy to use menu system (one page manual)
- Options for data entry
- Accepts different empirical data forms
- Data editing facility
- Empirical and estimated characteristics available
- Graphs functions
- Displays probability paper with data points, best fit line and confidence limits
- Computational time measured in seconds
- Export of data and graphics into Word-based reports and PowerPoint presentations

**System Requirements**

MIRCE™ Probchar Software will operate in a PC Windows environment.

**Designed For**

This course has been designed for practicing engineers, analysts and managers and others who need a desk top analysis tool for daily use to assist with statistical data analysis.

**Length: 3 days**

<b>Key Information</b>	
<b>Software and Written Materials</b>	MIRCE Science Ltd does not warrant, guarantee, or make any representations regarding the use, or the results of the use, of the software or written materials in terms of correctness, accuracy, reliability, currentness, or otherwise. The entire risk as to the results and performance of the software is assumed by the user. Neither MIRCE Science Ltd, nor anyone else who has been involved in the creation, production, or delivery of this software, shall be liable for any direct, indirect, consequential or incidental damages (including damages for loss of business profits, business interruption, loss of business information, and the like) arising out of the use of or inability to use such software.
<b>Dates</b>	Please see website – <a href="http://www.mirceakademy.com">www.mirceakademy.com</a> .
<b>Time</b>	0900 – 1700
<b>Venue</b>	Woodbury Park Hotel, Golf and Country Club – approximately eight miles by road from Exeter (the nearest major city).
<b>Cost</b>	£950.00 + VAT
<b>Accommodation</b>	<p>Accommodation is not included in the course fee. Participants are responsible for the arrangement and payment of their accommodation. Reduced rates are available at Woodbury Park Hotel – contact Woodbury Park Hotel Reservations direct requesting the ‘MIRCE’ rate. Contact details are:</p> <p>Woodbury Park Hotel, Golf and Country Club, Woodbury, Exeter, EX5 1JJ, United Kingdom</p> <p>Tel +44 (0) 1395 233 382  Fax +44 (0) 1395 233 384  Email <a href="mailto:enquiries@woodburypark.co.uk">enquiries@woodburypark.co.uk</a>  Web <a href="http://www.woodburypark.co.uk">www.woodburypark.co.uk</a></p> <p>A list of alternative accommodation in other hotels and guesthouses in the area of the course venue is available from MIRCE Akademy on request.</p>
<b>Booking</b>	Please complete a Booking Form for each participant and return it to MIRCE Akademy – available to download at <a href="http://www.mirceakademy.com">www.mirceakademy.com</a> .

## Contact us

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