

Maintenance Task Dynamics

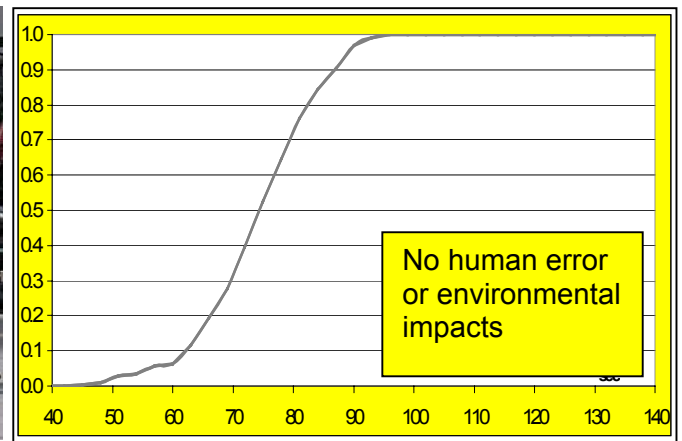
- Science of the Motion of Maintenance Activities in Time and Locations. -

20 – 22 October 2008, MIRCE Akademy, Woodbury Park, Exeter, United Kingdom

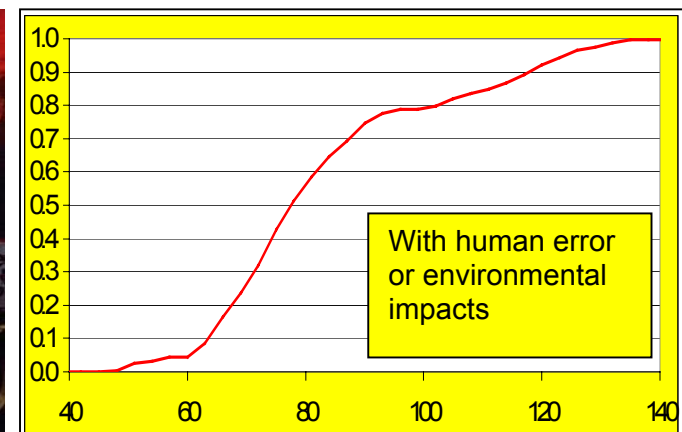
The MIRCE Akademy invites you to attend this International School, which is fully dedicated to the dynamics of the motion of maintenance activities in maintenance tasks, with respect to the passage of time and the locations of their executions.

The objective of the School is to present scientifically derived expressions for the quantitative probabilistic calculation of the duration of maintenance tasks of any type and complexity. The prediction method is based on the physical properties and sequentiality of maintenance activities expected to be performed in the future. The method developed enables the impact of the human and natural environment on the duration and quality of maintenance task to be considered in quantitative manner.

As maintenance tasks are “the building blocks” of a maintenance processes of any industrial system, the ability to accurately calculate their performance measures, cost and effectiveness, could be beneficial to engineers and managers, especially as the accurate calculations are possible at the planning stages when any changes could be implemented at minimum time and cost.



Both maintenance tasks are probable and predictable



Programme: Monday 20 October 2008

08.00 - 09.00 Registration

09.00 10.30	Maintenance Task: Concept, Types, Resources, Constraints, Cost & Effectiveness
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10.30 - 11.00 - Tea/Coffee

11.00 13.00	Maintenance Task Performance Measures: Maintainability Function, Expected Duration of Task, Percentual Duration of Task, Maximum and Minimum Duration, Direct and Indirect Cost and Effectiveness
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13.00 - 14.00 Lunch

14.00 15.30	Experimental Determination of Maintenance Task Dynamics: Statistical and Probabilistic Evaluation of maintenance test or field data
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15.30 - 16.00 Afternoon Tea

16.00-18/00	Case Study: Formula 1: Maintenance Process – Pit Stop Statistics Presentation in F1 Reliability & Effectiveness Centre of the MIRCE Akademy, followed by a guided tour of the Nigel Mansell World of Racing (Nigel Mansell OBE GFMA is 1992 Formula 1 and 1993 Indy PPG Champion)
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Programme – Tuesday 21 October 2008

09.00 10.30	Dynamics of Sequential Maintenance Tasks Concept, Definition, Maintainability Function, Performance Measures, Case Study
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10.30 - 11.00 - Tea/Coffee

11.00 13.00	Dynamics of Simultaneous Maintenance Tasks Concept, Definition, Maintainability Function, Performance Measures, Case Study
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13.00 - 14.00 Lunch

14.00-15.30	Dynamics of Complex Maintenance Tasks Concept, Definition, Maintainability Function, Performance Measures, Case Study
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15.30 - 16.00 Afternoon Tea

16.00-17.30	“Hands-On” practical exercise Quantitative assessment of the impact of the engineering alternatives on maintenance task performance measures, reviewed at the conceptual stage of system design
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19.30 - 22.00 International School Dinner

Programme – Wednesday 22 October 2008

09.00 10.30	Human Impact on Maintenance Task Dynamics Human Characteristics and Limitation Human Errors: types, frequencies, consequences
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10.30 - 11.00 - Tea/Coffee

11.00 13.00	Environmental Impact on Maintenance Task Dynamics Climatic: Latitude, Longitude, Altitude, Seasons Weather: Temperature, Humidity, Wind, Location: On-Board, On-Site, Mobile Work Shop, Depot, Original Manufacturer
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13.00 - 14.00 Lunch

14.00-16.00	Quantitative Assessment of the Human and Environmental Impact on Maintenance Task Dynamics Analytical and Simulation Methods for the Quantitative Evaluation of Maintainability Function
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16.00 - 16.30 Afternoon Tea

16.30-17.00

Closing Remarks and Award of Certificates

Science predicts the future

The development of science started when people began to study phenomena not merely observing them. People developed instruments and learned to trust their readings, rather than to rely on their own perceptions. They recorded the results of their measurements in the form of numbers. Supplied with these numbers they began to seek relationships between them and to write down in the form of formulas. Then the formulas became the only things they came to trust when they began to predict things they could not physically experience.

At the MIRCE Akademy we have observed and analysed the motion of a large number of operational events through the operation, maintenance and support processes. We have understood the mechanisms, the frequencies, and the dynamics of the motion of those tasks in the life of large number of industrial systems in order to determine and formulate their relationships. Finally, their physical relationships have been captured and described through mathematical formulas that enable accurate predictions of their future trajectories to be made. This has given birth to the *Mirce Science, the body of scientifically proven knowledge for managing industrial reliability, cost and effectiveness.*

The main objective of this International School is to present the concept, main principles and equations of the Mirce Science directly related to the prediction of the Maintenance Tasks. Dynamics such as: overhauls, tests, inspections, visual checks, scheduled maintenance tasks, repairs as-bad-as-old, not fault found, non destructive tests, replacements, overhauls, and many, many more, in the locations like Californian in summer and Siberia in winter, performed by trainees and well experienced mechanics.



The International School will be held at **Woodbury Park Hotel, Golf and Country Club**, 8 miles from Exeter.

Communication between Exeter and other parts of the United Kingdom are excellent.

By road, the M5 motorway links Exeter to London, the Midlands, Scotland and Wales. Regular rapid coaches run services to and from London and Heathrow Airport.

By rail, a regular fast service is available to and from Exeter (St David's Station) and London (Paddington or Waterloo Station - connection to Euro Star).

By air, Exeter Airport offers regular flights to many British and Continental destinations and is situated near to Woodbury Park. Travel between Exeter and Woodbury normally requires a car or taxi.

Delegates are responsible for the arrangement and payment of their own travel and accommodation. Delegates wishing to take advantage of preferential room rates should contact Woodbury Park Hotel Reservations quoting 'MIRCE'.

Woodbury Park Hotel, Golf and Country Club, Woodbury, Exeter, EX5 1JJ, United Kingdom



Dr Jezdimir Knezevic, the host of the School is the "father" of the Mirce Science and the Founder and President of the MIRCE Akademy. He has been experiencing the complexity of the mechanics of maintenance tasks since the age of 13, as a teenager who loved motor sport. His multi disciplinary theoretical knowledge, huge industrial experience and an endless passion for the subject have attracted over 5000 engineers, managers, analysts and students to his courses and educational programmes in over 40 countries in Europe, North and South America, Australia, Asia and Africa, at universities, professional institutions, industry and government.

MIRCE Akademy International School

Registration Form

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Email: quest@mirceakademy.com

THIS FORM MAY BE PHOTOCOPIED

Web site: www.mirceakademy.com

International School Prices (in GB Pounds £)

	Fee	VAT	Payable
• Participants	950.00	166.25	1116.25
• MIRCE-Fellows	895.00	156.63	1051.63
• MIRCE-Students	795.00	139.13	934.13

The Price includes:

- Tuition
- Supporting Materials
- Lunches
- Light Refreshments
- School Gala Dinner
- Visit to Nigel Mansell World of Racing

Value Added Tax (VAT)

Unless special exemption exists, under UK Customs and Excise regulations delegates from all countries are required to pay UK VAT @ 17.5% on all courses taking place in the UK. Non-UK delegates may be able to recover VAT incurred via the relevant tax authority in the country of origin of the delegate.

PAYMENT DETAILS

- Please invoice my organisation
(Note: UK MOD personnel can pay by BACS through the DBA – Contractor Number will be supplied with invoice)

For the attention of _____

Purchase Order No. _____

- Please find enclosed a cheque for £ _____
(Made payable to MIRCE Akademy)

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Special requirements Yes No

Please specify

I understand and accept the registration terms and conditions as shown

Signature _____ Date _____

Terms and Conditions

Substitution of participants may be made at any time. If you intend to do this, please advise the MIRCE Akademy ('the organiser') as soon as possible. Cancellation of a booking must be received in writing by the organiser at least 14 days before the commencement of the International School. MIRCE Akademy regrets that no refunds or credits will be made after the deadline unless the organiser cancels the Event.

The organiser reserves the right to alter the programme or cancel the International School at its discretion. All places offered are subject to availability.