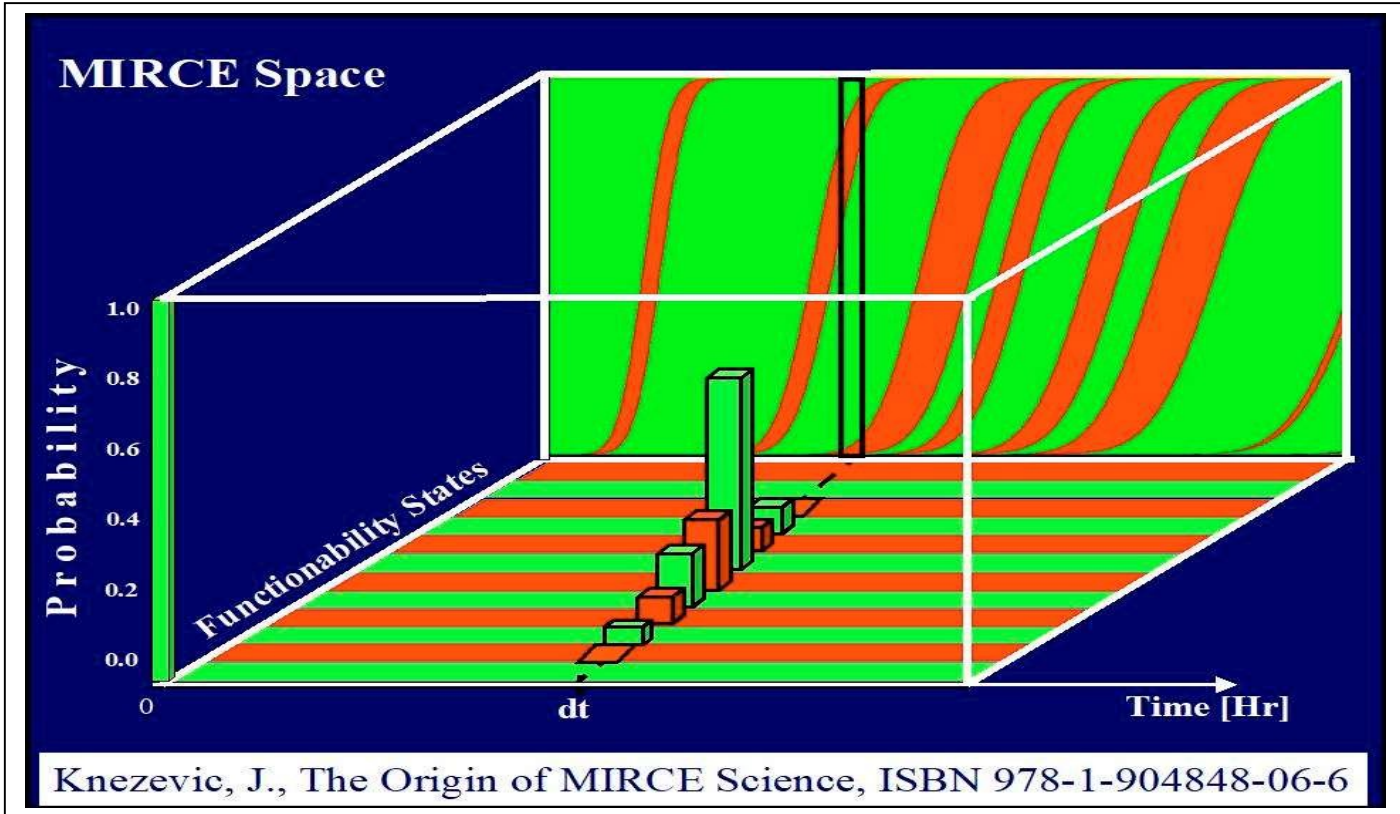


32nd MIRCE International Symposium

7th December 2022, Woodbury Park, Exeter, UK

MIRCE Science Theory Ready for Applications




It is well understood that “**racing cars in the pit do not win races**”, but it is not well understood what actions should be taken to keep it on the track and what resources should be provided to support them. Managing “negative events” of any system is a life long process that starts with the design and finishes with a safe disposal, driven by chosen target (profit, loyalty, victory, customers’ satisfaction, safety and so forth). As occurrences of negative events are consequence of systems physical existence, one way to manage them is to use MIRCE Science to understand causing mechanisms and then use MIRCE Equations to determine actions and resources to “**keep racing cars on track and win races**”. **The choice is yours!**

“The Symposium is aimed at the members of the profit generating companies or public organisations with the wider horizons who are able to fully appreciate the opportunities presented to them by the body of knowledge contained in MIRCE Science. It is applicable to commercial organisations like aerospace, nuclear energy, national defence, transportation all way up to the health, education and similar that are seeking operational effectiveness through science based management of resources in aid of delivering expected work.”

Dr Knezevic, Founder & President of MIRCE Academy

The Symposium Programme at Glance

>>>>> Wednesday 7th December 2022 <<<<<

0830-0900	Registration and welcome coffee, Colin Chapman, Room, Woodbury Park Hotel,
0900-1300	The session will introduce the philosophy of MIRCE Science, which is based on the premise that the purpose of existence of any functional system is to do a work. The work is done when the expected measurable function is performed through time. However, experience teaches us that expected work is frequently beset by undesirable negative functionability events, resulting from a variety of negative functionability actions (overload, wearout, fatigue, environmental impacts and associated human activities, from the design and manufacture to operation and maintenance). Hence, positive functionability actions must be performed on the systems to enable them to continue doing the work (repairing, testing, replacing, changing the mode of operation and similar). Thus, the complex interactions between positive and negative functionability actions determine work done by a system and resources consumed, which regrettably become known only at the end of a financial year or after the disposal, when nothing could be done to influence it. By studying mechanisms of all impacting actions MIRCE Science theory is able to predict those interactions and predict expected work and associated resources for each of feasible options.
1030-1100 Coffee	
1300-1400	Lunch Break
1400-1730	The first part of the session will focus of the mathematical side of MIRCE Science, thus: <ul style="list-style-type: none"> • MIRCE Functionability Space • MIRCE Functionability Equation • MIRCE Maintainability Equation • MIRCE Supportability Equation • MIRCE Profitability Equation (expected revenue and costs o resources) The second part of the session will demonstrate the applicability of MIRCE Science theory to the quantitative assessment of the combined impact of engineering and management decisions on the work done by a system the following four options of the future system are addressed: Option 1: The functionable system under consideration is expected to experience occurrences of a NFE during a continuous operation with the expected value of $E[TNA_s]=1080$ Hr. What is the amount of a positive work expected to be delivered during a calendar year of continuous operation, without performing any maintenance action? Option 2: What would be the additional work done if the system is designed in the way that maintenance actions could be performed after occurrences of negative functionability events? Assume that the design-in maintenance action that returns a functionable system to PFS has the expected value of $E[TPA_s]=168$ Hr . Option 3: The production department submitted a proposal in which they were stating that by investing the additional funds allocated into a new technology based on Industry 4.0 it would be possible to extend the basic design expected life of a system by 50%. Option 4: The Maintenance Engineering department submitted a proposal in which they were stating that by investing the additional funds allocated into new testing and diagnostic equipment it is possible to reduce the time spend in NFS of a system 50%, in respect to the Option 2. Fundamental question: Which Option is the best and by how much ?
1530-1600 Tea	
18.30-19.00	Book signing and group photo
1900-1930	Get Together Sherry Reception at Woodbury Park Hotel
1930-2230	Symposium Dinner & MIRCE Akademy Members Christmas Dinner  <div style="border: 1px solid black; padding: 5px;"> <p>Functionability 1 - Research & Education Centre, of the MIRCE Akademy</p> <p>MIRCE Science based Announcement and Award of the</p> <ul style="list-style-type: none"> • 2022 Formula 1 Driver Functionability Champion • 2022 Formula 1 Team Functionability Champion </div>
>>> MIRCE Akademy wishes you prosperous 2023 <<<<	



Exeter is the most southwesterly Roman fortified settlement in Britain. Exeter Cathedral was founded in the early 12th century and has several notable features, including an early set of misericords, astronomical clock and the longest uninterrupted vaulted ceiling in England.

Today, Exeter is identified as one of the top ten most profitable locations for a business to be based or to gain University education.

All prices are in GB Pounds

Service	Price	VAT	Total
Participant	295.00	59.00	354.00
Retired participants	195.00	39.00	234.00
University students	175.00	35.00	210.00
MIRCE Akademy Members	225.00	45.00	270.00
MIRCE Akademy Fellows	255.00	51.00	306.00
MIRCE Akademy Students	199.00	39.80	238.80
Symposium Dinner only	60.00	12.00	72.00

Ježdimir Knezevic



The Origin of MIRCE Science

Special Christmas present to each paid participant from the MIRCE Akademy

A signed copy of the book “The Origin of MIRCE Science”, by J. Knezevic, published by MIRCE Science in December, 232 pages. [http://www.mirceakademy.com/uploads/JK-A4-MSc-BOOK\(3\).pdf](http://www.mirceakademy.com/uploads/JK-A4-MSc-BOOK(3).pdf)

Physical and mathematical reality of a motion of a system through MIRCE Space are fully analysed, and presented through a set of original axioms and MIRCE Functionability Formulas. They deal with all operational, maintenance and support processes, actions and events in an integrated way that it become possible to predict expected work and resources required for all feasible options.



About the Venue

Woodbury Park is a magnificent 500 acre complex set among rolling hills above the South West English coastline, only a few 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 Station).

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.

Among the outstanding leisure facilities at Woodbury Park are two golf courses including the magnificent Oaks Championship course, tennis courts, a swimming pool, spa, sauna and fully equipped gymnasium and well appointed lounge areas and bars.

Woodbury Park, Woodbury, Exeter, EX5 1JJ, United Kingdom

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☎ +44 (0) 1395 233 384

✉ enquiries@woodburypark.co.uk

□ www.woodburypark.co.uk

About the MIRCE Akademy

MIRCE Akademy is an independent research and educational institution devoted to the enhancement and applications of MIRCE Science – study of mechanisms of the motion of a functional system through MIRCE Space to determine resources required for delivering expected work.

The knowledge and methods of MIRCE Science have benefited designers, manufacturers, constructors, operators, service-providers, regulators and others in the aerospace, automotive, communication, construction, defence, transport, service, utility sectors and other areas of business and government.

Benefits of a scientific based knowledge are experienced through significant increase in system effectiveness while drastically reducing costs of making, running and disposing systems.



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Woodbury Park Hotel & Golf Club, Exeter, EX5 1JJ, UK – home of the MIRCE Akademy

32nd MIRCE International Symposium: 7th December 2022
MIRCE Science Theory Ready for Applications

Registration Form

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Phone: +44 (0) 1395 233 382

Mail: MIRCE Akademy, Woodbury Park, Exeter, EX5 1JJ, United Kingdom

Web site: www.mirceakademy.com

THIS FORM MAY BE COPIED

Please select appropriate level of service and corresponding fee.

Group discounts are available please contact us.

The Symposium Fees includes:

- Attendance
- Symposium Material and Supporting Materials
- Lunch and Light Refreshments
- Book "The Origin of MIRCE Science"
- Christmas Dinner
- Free Parking

Value Added Tax (VAT)

Unless special exemption exists, under UK Customs and Excise regulations delegates from all countries are required to pay UK VAT @ 20 % 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.

Terms and Conditions

Substitution of participants may be made at any time. If you intend to do this, please advise the MIRCE Science ('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 Symposium. MIRCE Science 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 Summer School at its discretion. All places offered are subject to availability.

Invoice with payment details will be emailed to a participant after receiving the booking form electronically or by mail.

PERSONAL DETAILS (Please print clearly)

Surname _____

First name _____

Organisation _____

Department _____

Position _____

Address _____

Postcode _____ Country _____

Tel _____ Fax _____

E-mail _____

Special requirements Yes No

Please specify

I understand and accept the registration terms and conditions as shown

Signature _____ Date _____