

30th MIRCE International Summer School

9 - 11 September 2019, Woodbury Park, Exeter EX5 1JJ, United Kingdom

Predicting Expected Work and Resources

This year's Summer School focuses on a challenge that is facing the business community daily, which is, delivering the expected work, defined by their business plans, confidently and consistently, with the expected level of profit. To do this effectively requires the ability to simultaneously manage, in real time, a number of what we call "positive and negative functionability events" on the one hand, while maintaining continuous delivery of the required revenue generating work, defined by the expected functional performance, on the other.

To achieve this repeatedly, a scientific understanding of the impacts of all natural and human actions on the system's functionality and functionability performance is essential. Regrettably, this is not standard business practice in the majority of organisations. More commonly decisions makers focusing their efforts on application of management methods to the reduction of operational costs rather than increase of the return on investment measured by the resulting **profit!**

The objective of this unique event is to "inform" decision makers how to "**Deliver Expected Work and Expected Profit**", which is achievable by integrating the MIRCE Science based body of knowledge into their business planning process. It will enable accurate predictions to be made, of the work expected to be done and the resources expected to be required, exposing expected profit. Join us to find out how the balance between the work and resources could be successfully "engineered" and preemptively managed by understanding and employing the **MIRCE Profitability Equation***.

* Knezevic, J., **The Origin of MIRCE Science**, pp. 232, MIRCE Science, 2017, ISBN 978-1-904848-06-6

Dr Jezdimir Knezevic



Researcher, educator and entrepreneur with over 300 publications disseminated world-wide through books, handbooks, papers, monographs and reports are attributed to his name. In addition, he has delivered hundreds of technical presentations, key note addresses and speeches; has been congress, conference, symposium chairman, track leader, workshop presenter, round table moderator on many hundreds international events which took part in all continents.

Dr Knezevic is the father of **MIRCE Science**, the science of the motion of functionable systems type through MIRCE Space while delivering functionability work. He is the Founder and President of MIRCE Akademy, an independent research and educational institution based in UK.

His multi-disciplinary theoretical knowledge, considerable "hands-on" practical experience and endless passion for the subject have attracted over 6000 engineers, managers and students to his courses and educational programmes in over 40 countries in Europe, North and South America, Asia, Australia and Africa, at universities, professional institutions, industry and government.

Dr Knezevic regularly provides services to private and public sector organisations regarding their needs for managing in-service reliability, cost and effectiveness, MIRCE, of their functionable systems.

Full details www.mirceakademy.com

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Programme*

Day One

Introduces the concept of scientific understanding of the business processes and mechanisms that generate negative functionability events (NFE), which cause interruptions of delivering expected work and consequential revenue lost. Occurrences of NFEs result from complex interactions between the physical properties of business systems, natural environment and human actions taken. Thus, the physical phenomena that cause NFE and the consequential loss of revenue have to be understood. To do this the phenomena need to be analysed within a physical scale between 10^{-10} -metre (to understand atom system based phenomena) and 10^{+10} metre (to understand phenomena driven by the solar system). This is the realm of MIRCE Mechanics.

As the main purpose of existence of any business system is to deliver a work the occurrences of NFE, for well managed systems, are followed by natural or human actions that generates occurrences of Positive Functionability Events (PFE) and continuation of the expected work. Observed patterns of the occurrences of NFE and PFE through life of any business system have shown that they are statistical in nature. This means statistical methods must be applied to describe the measured work done and profit generated by any observed business systems in the past.

Day Two

Introduces the mathematical formulations of the physical processes that will explain the motion of business systems through, what we call "MIRCE Space". This is a definable modelled world described by the MIRCE Mechanics Formulae developed by Dr Knezevic at the MIRCE Akademy. These formulae enable us to predict the probability of each feasible "future" business system being in a given functionability state (positive or negative), together with the physical resources required to make that possible future more probable. The resulting monetary values required to deliver each of these possible futures will determine the in-service costs, over any contract period, in any specified natural environment, delivered under the contractual and organisational rules.

Thus, the fundamental equation of economics, which states that profit is equal to the difference between revenue and cost is augmented to specifically consider the impact of the cost of lost revenue, while not working!

Day Three

Our attention turns to the practical application of the MIRCE Profitability Equation using understandable methods and readily available technologies. We will explore how to model your future business performance in terms of the expected revenue, cost and profit, for each feasible business model for a given operational design. You will see how this analysis can be performed at the time in a system's life cycle when changes can be made with minimum impact to cost and schedule. The practical applications of the **MIRCE Profitability Equations** are illustrated through several numerical examples, each of which is well documented and provided as course material, to support and motivate leaders and practitioners to continue to develop the techniques shown for the benefit of their own organisations.

Summer School - Special Feature MIRCE Science Based Predictions of Virgin Galactic Profit Driving Events

The objective of the Virgin Galactic company is to provide suborbital space flights to the paying public, sub orbital science missions and small satellite launches. This Case Study presents the results of the theoretical analysis* of the demand for the maintenance and support resources required to deliver continuous level of despatch reliability and safety, necessary for the generation of the expected profit, defined in the Business Plan.

* Peake, Stuart, Doctoral Diploma Programme student of the MIRCE Akademy



* Programme business adviser: Alex Mulholland, Science Fellow of the MIRCE Akademy

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Venue

Woodbury Park

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, Exeter, EX5 1JJ, UK

☎ +44 (0) 1395 233 382

☎ +44 (0) 1395 233 384

✉ enquiries@woodburypark.co.uk

🌐 www.woodburypark.co.uk



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 misericord, an 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.



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

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Key Information

Price (GB Pounds £)

Package Type	Fee	VAT	Total
Participant	995	199	1194
MIRCE Fellows	975	195	1170
MIRCE Members	955	191	1146
MIRCE Student	755	151	906
MIRCE Retired	555	111	666

The Price includes:

- Tuition
- Study Materials
- Lunches
- Light Refreshments
- Summer School Dinner - Fish & Chips
Dinner in XVII century English pub, Lighter Inn, Topsham. Devon.

Group Discounts for Standard Participants

2 bookings, from the same organisation will receive a 15 % and for 3 or more 25% discount.

Location and Accommodation

The Summer School will be held at **Woodbury Park Hotel, Golf and Country Club**, which is approximately eight miles from Exeter by road.

Participants are responsible for the arrangement and payment of their own travel and accommodation.

Participants wishing to take advantage of preferential room rates should contact Woodbury Park Hotel Reservations quoting 'MIRCE'.

The contact details are:

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

Tel +44 (0) 1395 233 382

Fax +44 (0) 1395 233 384

Email enquiries@woodburypark.co.uk

Web www.woodburypark.co.uk

A list of alternative accommodation in other hotels and guesthouses in the vicinity is available from MIRCE Akademy on request.

Difficulties with the Fee.

Should any interested individual have a problem for paying fees published please contact directly Dr Knezevic, on jk@mirceakademy.com

Travel

For travel details to Woodbury Park and a map visit our website at www.mirceakademy.com.

Messages

During the Summer School participants may be contacted by telephone on +44 (0) 1395 233 85. Messages will be passed to participants during breaks.

Language

The Summer School language will be English.

Recommended Attire

Smart casual is recommended dress code for the Summer School and in the in the grounds of Woodbury Park.

No formal dress is required for the Summer School Dinner.

Smoking

Woodbury Park does not permit smoking in any of the leisure and sport complex facilities and in the hotel.

Mobile Phones

Out of consideration to speakers and the audience, mobile phones should be switched off during the formal sessions.

Further Information

 **+44 (0) 1395 233 856**

 **quest@mirceakademy.com**

 **www.mirceakademy.com**

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Booking Form

Please photocopy for each additional participant

Terms and Conditions

Substitution of participants may be made at any time. If you intend to do this, please advise MIRCE Akademy 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 event in order to receive a refund of payment. MIRCE Akademy regrets that no refunds will be made after the deadline.

MIRCE Akademy reserves the right to change the advertised programme or location or to cancel the event at its discretion. In the event of cancellation of the event by MIRCE Akademy payments received at the cancellation date will be refunded. All places offered are subject to availability.

MIRCE Akademy is not responsible for any loss or damage as a result of substitution, alteration or cancellation of the event.

MIRCE Akademy is unable to accept liability for the loss of, or damage to, the belongings of those attending the event.



Participant Details

Surname	
First Name	
Position	
Department	
Organisation	
Address	
Zip/Post Code	Country
Telephone	Fax
Email	
Special Dietary Requirements	
<i>I understand and accept the terms and conditions and payment as shown.</i>	
Signature	Date

Payment Method

<input type="checkbox"/> Cheque	
I enclose a cheque for GB £	payable to Mirce Science Ltd.
<input type="checkbox"/> Bank Direct Transfer	
Please contact us for details.	
<input type="checkbox"/> Credit Card	
Please debit my credit card <input type="checkbox"/> Visa <input type="checkbox"/> MasterCard <input type="checkbox"/> Amex	
Cardholder	
Card No.	
Expiry Date	Security Code
Cardholder's Signature	
<input type="checkbox"/> Invoice	
Please invoice my organisation:	
Department:	
For the attention of:	
Purchase Order No.	
Address (if different from above)	
City:	Zip/Post Code
Country	

Value Added Tax (VAT)

Unless special exemption arrangements exist, under UK Customs and Excise regulations participants from all countries are required to pay UK VAT @ 20 % at the time of publication. Non-UK participants may be able to recover VAT incurred via the relevant tax authority in their country of origin.