

2018 Statistics Enrichment Camp

Date: 28 May 2018

Time: 9.30am – 3.30pm

**Venue: NUS
Faculty of Science
Lecture Theatre 31**

This camp is specially tailored for all Secondary School and Junior College students.

Programme

Time	Activity
9.30am	Registration
10.00am	Brief Introduction to Department of Statistics and Applied Probability <i>Associate Professor Lim Tiong Wee</i> <i>Deputy Head, Department of Statistics and Applied Probability</i>
10.15am	Lecture 1. How Computers became Masters at Playing Go <i>Associate Professor Adrian Roellin</i>
11.15am	Lecture 2. Can Statistics help Diagnose Glaucoma more Efficiently? <i>Dr Alex Thiery</i>
12.15pm	Lunch Provided
1.30pm	Lecture 3. Birthday Problems, Coincidence and Double Voting <i>Associate Professor Choi Kwok Pui</i>
2.30pm	Lecture 4. What does Statistics have to do with the War on Diabetes? <i>Associate Professor Yap Von Bing</i>
3.30pm	End of Program

Abstracts

Lecture 1. How Computers became Masters at Playing Go *Associate Professor Adrian Roellin*

What was thought to be decades away a few years ago has now become a fact: Computers are better at playing Go than humans. Find out more about what is inside the brain of AlphaGo and how mathematics and big data have played a crucial role in this development.

Lecture 2. Can Statistics help Diagnose Glaucoma more Efficiently? *Dr Alex Thiery*

Glaucoma, the most common cause of irreversible blindness worldwide, has no cure. It is estimated that there will be 79.6 million people with glaucoma globally by 2020. Up to today, providing an accurate glaucoma diagnosis is a complex endeavour that is expensive, time consuming and subjective. In this talk, I will describe recent work leveraging statistics, mathematics and new imaging techniques that has resulted in a new algorithm able to provide a robust glaucoma diagnosis from a single 3D scan of the eye within seconds.

Lecture 3. Birthday Problems, Coincidence and Double Voting *Associate Professor Choi Kwok Pui*

In this talk, I shall describe the birthday problems, their variants and applications.

Lecture 4. What does Statistics have to do with the War on Diabetes? *Associate Professor Yap Von Bing*

Diabetes is a serious issue in Singapore, as you can tell from the fact that it is among the three main topics of Prime Minister's 2017 National Day Rally speech. How serious is it? What steps could be taken to address the problem? How might the efficacy of such steps be measured? I will attempt to convince you that all these questions have strong connections with Statistics.

Registration Form

1. The registration fee per person (student or teacher) is S\$30 (GST inclusive). This fee will cover morning tea, lunch and the lecture note handouts.
2. Payment can be done through IFFAS or by cheque.

IFFAS:

Please credit the payment to:
National University of Singapore
DBS Account No: 7171-032-0320003133

Kindly quote the event name when processing the payment.

If you need an official letter to process the payment, please send your request to Melissa at melissa.thong@nus.edu.sg (Tel: 6516 8050).

Cheque:

Please write a cheque payable to **National University of Singapore**.

Official receipts will be issued on the day of the event.

3. Cancellations are **non refundable** but participants can be substituted.
4. Please send the completed registration form together with your payment by **Friday, 11 May 2018**, to:

*Ms Melissa Thong
Department of Statistics & Applied Probability
Block S16, Level 7, 6 Science Drive 2
Faculty of Science
National University of Singapore
Singapore 117546*

Individual Registration

Name: _____

Institution: _____

Email: _____

Phone: _____

Bank/Cheque number: _____

Dietary Preference: Vegetarian / Non-vegetarian* (Caterer will be halal certified.)

Block Registration

Institution: _____

No. of students: _____

Name of teacher-in-charge: _____

Email: _____

Phone: _____

Bank/Cheque number: _____

For Block Registration, please complete and return this page together with the payment. If the headcount exceeds 20, please enter the particulars on a new page.

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