Programme Outline

In this programme, we will cover some basic knowledge of satellite applications, satellite motions in space, different types of satellite orbits, mission simulations, functions of satellite systems and subsystems, and design qualifications and philosophies. You will work in groups to discuss mission planning and satellite design. You will have the opportunity to construct the mockup of your own satellite using 3D printing and other construction materials.

Besides the technical programme, we will also conduct a campus tour, visit to Satellite Technology and Research Centre (STAR) and Center for Remote Imaging, Sensing and Processing (CRISP). A Singapore city tour will also be arranged.

Who Should Attend?

This programme is suitable for any budding engineer or scientist who may be interested to discover space technologies. No pre-requisite knowledge is expected other than some high school science.

When will this Programme be Conducted?

Time: 2 weeks, from 9-20 July 2018

Venue: Engineering Design and Innovation Centre,
       Block E2A, 5 Engineering Drive 2,
       National University of Singapore, 117579

Accommodation: University Town, NUS

Cost: SGD 1450 excl travel costs, incl accommodation
      SGD 1350 (Early bird before 1 June 2018)
      The above cost is for non-air conditioned rooms.
      Air conditioned rooms may be arranged for SGD100 more.

Contact: Ms Rosanna engrsmu@nus.edu.sg

Register via
https://mysurvey.nus.edu.sg/EFM/se/543BE5C24ADD9AF8
Or use the softcopy attached below
Registration Form (Working Adults)

(Please fill in all fields)

Personal Particulars

Title : Mr ☐ Miss ☐

Family name (Last Name) : __________________________________________________________

First Name : _________________________________________________________________

Nationality : _________________________________________________________________

Name to appear on badge : ______________________________________________________

University/Company : __________________________________________________________

Department/Position : __________________________________________________________

Email address : ________________________________________________________________

(Any correspondences will be sent to this address. Please ensure the accuracy of the input)

Phone/mobile : ________________________________________________________________

Fee : ☐ Without accommodation – SGD750 (Early Bird)

☐ With 12 Nights accommodation – SGD1350 (Early Bird)

* After the 1st of June 2018, prices will be $50 more (without accommodation) and $100 more (with accommodation).

Payment : ☐ Invoice (only for University / Corporate Payment)

☐ Cash

☐ Cheque (made payable to “National University of Singapore”)

☐ Bank Transfer to DBS 032-000313-3

For payment via Bank Transfer, please email engrsmu@nus.edu.sg with the details of transfer.

Signature ___________________________ Date ___________________________

You may register by completing this form and email to engrsmu@nus.edu.sg by: 15th June 2018.
Or fill in the online form here: https://mysurvey.nus.edu.sg/EFM/se/543BE5C24ADD9AF8

*All successful applicants will be informed via email by 20th June 2018 (or earlier).
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<th>Week 1</th>
<th>Programme and Activities</th>
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<tr>
<td><strong>Day 1</strong></td>
<td><strong>Morning</strong>&lt;br&gt;• Opening Address&lt;br&gt;• Ice-breaking session&lt;br&gt;• Brief introduction of Global Satellite Agencies and their Roles&lt;br&gt;&lt;br&gt;<strong>Afternoon</strong>&lt;br&gt;• NUS Campus Tour&lt;br&gt;• Different satellite configurations eg nanosats, cubesats, microsats, etc&lt;br&gt;• Case studies or examples of some student projects from other institutions</td>
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<td><strong>Day 2</strong></td>
<td><strong>Morning</strong>&lt;br&gt;• Space Environments and Orbits&lt;br&gt;• Subsystems in a satellite&lt;br&gt;&lt;br&gt;<strong>Afternoon</strong>&lt;br&gt;• System Tool Kit (STK) Simulation Environment&lt;br&gt;• Company Visit</td>
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<td><strong>Day 3</strong></td>
<td><strong>Morning</strong>&lt;br&gt;• Orbital Mechanics&lt;br&gt;• Orbital Mechanics Simulations&lt;br&gt;&lt;br&gt;<strong>Afternoon</strong>&lt;br&gt;• Attitude Determination and Control Subsystem (ADCS)&lt;br&gt;• Free &amp; Easy – Bonding time</td>
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<td><strong>Day 4</strong></td>
<td><strong>Morning</strong>&lt;br&gt;• Electrical Power Subsystem (EPS)&lt;br&gt;• Thermal Subsystem&lt;br&gt;&lt;br&gt;<strong>Afternoon</strong>&lt;br&gt;• Visit to the Center for Remote Imaging, Sensing and Processing (CRISP)&lt;br&gt;• Tracking, Telemetry and Command (TT&amp;C)</td>
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<td><strong>Day 5</strong></td>
<td><strong>Morning</strong>&lt;br&gt;• On-Board Computer (OBC)&lt;br&gt;• Satellite Launch &amp; Operations&lt;br&gt;&lt;br&gt;<strong>Afternoon</strong>&lt;br&gt;• Visit to the Satellite Technology and Research Centre (STAR)&lt;br&gt;• Testing of Satellites</td>
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<tr>
<td>Week 2</td>
<td>Programme and Activities</td>
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<tr>
<td><strong>Day 1</strong></td>
<td><strong>Morning</strong>&lt;br&gt;• Structure &amp; Mechanisms&lt;br&gt;• Power Budgets</td>
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<tr>
<td><strong>Day 2</strong></td>
<td>Singapore Tour</td>
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<td><strong>Day 3</strong></td>
<td><strong>Morning</strong>&lt;br&gt;Introduction to 3D Printing</td>
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<tr>
<td><strong>Day 4</strong></td>
<td>Brainstorming &amp; Prototyping&lt;br&gt;(Cardboard / 3D Printing / Laser Cut)</td>
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<tr>
<td><strong>Day 5</strong></td>
<td><strong>Morning</strong>&lt;br&gt;Final Project Presentation</td>
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Register early to avoid disappointment!

Register early to get the early bird discount!