In conjunction with the joint conferences iCMS2017 & UROS2017, the organizing committee invites participants to our pre-conference workshop.

**Workshop Objectives**

- To introduce communicable disease epidemiology and its relation to the applications of mathematical modelling;
- To introduce the mathematical approach to the development of disease models;
- To discuss the latest development in the application of disease modeling with case studies and appraisal of literature.

**Contents**

- Introduction to Communicable Diseases & Epidemiology;
- Basic Concepts in Disease Modelling;
- Introduction to Mathematical Modelling Software;
- Understanding Research Question;
- Model Parameters and Optimization;
- Developing the Model Frame;
- Group Poster Presentation & Appraisal;

**Who Should Attend**

Highly recommended to:

- public health and pharmaceutical-industry professionals, policy makers & program managers,
- communicable disease researchers,
- medical Statisticians,
- individual interested in infectious disease;
- mathematicians who wish to learn key biological concepts and how they are translated into modelling.

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**About**

This workshop is an introductory training to address the importance of mathematical modelling as an integrated field of communicable disease epidemiology and mathematical epidemiology as well as its applications to related diseases.

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**Pre Conference Workshop 2**

**Modelling Communicable Disease Dynamics & Control**

**By Prof Nicolaas JD Nagelkerke – Author of Nagelkerke squared coefficient of determination**

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**5 – 6 November 2017**

**Adya Ballroom, Adya Hotel, Langkawi, Malaysia**

**HRDF CLAIMABLE**

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For more information, please visit [www.icmskdh.net](http://www.icmskdh.net)

FACULTY of COMPUTER & MATHEMATICAL SCIENCES
Universiti Teknologi MARA (UiTM) Cawangan Kedah, Kampus Sungai Petani, 08400 Merbok, Kedah, Malaysia

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Co-organizer:
FACULTY OF MEDICINE
Universiti Teknologi MARA
**Speakers**

**Professor Nicolaas J D Nagelkerke**
- PhD in biostatistics from the University of Amsterdam.
- A biostatistician, an epidemiologist and a mathematical modeller.
- Contributed **Nagelkerke R** coefficient of determination used in Logistic Regression.
- Has over 400 publications.
- Extensive experience in communicable diseases, epidemiological research and modelling, and statistical consultancy works in health related industry in Europe, Canada, Africa, Middle East and South East Asia, including collaboration works with the Centre for Global Health Research (University of Toronto); WHO in West Africa; UNAIDS; the World Bank in India and the Russian Federation.

**Associate Professor Dr Sanjay Rampal**
- An Associate Professor of Epidemiology & Biostatistics and heads the department of Social and Preventive Medicine, Faculty of Medicine, University of Malaya
- PhD, John Hopkins University, Baltimore; MPH, Harvard & Cambridge Universities
- Chairman, Public Health Society, Malaysian Medical Association
- Fellow, Academy of Medicine Malaysia
- Published 67 research papers, of which 53 are ISI indexed; h-index of 15 with 3000+ citations
- Research interest includes improving causal inference, epidemiological designs, regression models, multiple imputations, measurement errors, propensity scoring

**Dr Nurhuda Ismail**
- A physician specialized in community medicine & communicable disease epidemiology
- Lecturer at the Discipline of Population Health & Preventive Medicine, Faculty of Medicine, Universiti Teknologi MARA
- Obtained training certificate in communicable disease mathematical modelling from London School of Hygiene and Tropical Medicine
- Doctoral work on Malaysian tuberculosis transmission dynamics & developed age-structured deterministic mathematical model
- An EBM (Evidence-Based Medicine) trained from Julius Centre University of Malaya.
- Member, International Society for Infectious Diseases; the John Snow Society of Royal Society for Public Health; & Malaysian Thoracic Society

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**Workshop Fee Per Participant**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>Early Bird</th>
<th>Normal</th>
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</thead>
<tbody>
<tr>
<td>Local Participant</td>
<td>RM 980</td>
<td>RM 1500</td>
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<tr>
<td>International Participant</td>
<td>USD 250</td>
<td>USD 380</td>
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<tr>
<td>Local Student</td>
<td>RM 890</td>
<td>RM 1200</td>
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<tr>
<td>International Student</td>
<td>USD 230</td>
<td>USD 320</td>
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**PAYMENT**
- Bank Name: Bank Islam Malaysia Bhd (Sungai Petani Branch),
- Bank Address: No.71&72 Lorong Legenda 1, Legenda Heights, 08000 Sungai Petani, Kedah, MALAYSIA
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- Bank Account Name: Akaun Amanah UiTM Kedah
- Pay to: Bendahari Uitm Kedah
- Swift Code: BIMBMYKL
- GST: 00118758096

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# Program Schedule

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<thead>
<tr>
<th>Time</th>
<th>DAY 1</th>
<th>DAY 2</th>
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</thead>
<tbody>
<tr>
<td>8.30 – 8.45</td>
<td>REGISTRATION</td>
<td>REGISTRATION</td>
</tr>
<tr>
<td>8.45 – 10.00</td>
<td>Introduction to Communicable Diseases &amp; Epidemiology</td>
<td>Understanding Research Question</td>
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<tr>
<td>10.00 – 10.15</td>
<td>COFFEE BREAK AND DISCUSSION</td>
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<tr>
<td>10.15 – 11.30</td>
<td>Basic Concepts in Disease Modelling 1</td>
<td>Model Parameters and Optimization</td>
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<tr>
<td>11.30 – 13.00</td>
<td>Developing the Model Frame</td>
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<tr>
<td>13.00 – 14.00</td>
<td>LUNCH AND DISCUSSION</td>
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<tr>
<td>14.00 – 15.30</td>
<td>Basic Concepts in Disease Modelling 2</td>
<td>Group Poster Presentation and Appraisal &amp; Conclusion</td>
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<td>15.30 – 17.00</td>
<td>Introduction to Mathematical Modelling Software</td>
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<tr>
<td>17.00</td>
<td>TEA BREAK AND DISCUSSION</td>
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</table>

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