

## Benefits

### For industry

By bringing together people from a wide range of backgrounds to focus on issues with real importance to industry, study groups have helped to facilitate excellent improvements for industry. Companies from diverse industries have benefited from the insights gained through mathematical analysis of their problems during this study groups.

MISG researchers can:

- assist in the development of new technologies,
- add competitive value to existing technologies,
- provide the tools to analyse your current data,
- underpin service industries,
- provide the expertise to monitor, predict and solve the quantitative technical challenges that face your business.

Furthermore, study groups provide industry with opportunities to develop long-term interactions with academics to provide new scientific input concerning their products and processes. Past industrial participants have found that MISG was a great experience and has:

- established lasting and productive working links with applied mathematicians
- Raised and investigated research issues of long-term significance

### For Academics and Researchers

Mathematicians with diverse interests have benefited from the exciting research opportunities presented by unsolved problems with practical significance. The MISG is an exciting and dynamic forum where academics and researchers can apply their expert knowledge in the mathematical, physical and engineering sciences to help solve real world, industrially relevant problems.

## Industrial Problem Contributor

The academicians are not paid for the consultancy fee. However, a standard fee of RM5000 per problem is requested from the industry. Reductions for small or medium sized enterprise may be negotiated. Please contact the industrial liaison representative to discuss your contribution.

For the best result from the event, the presenting companies are asked to have at least one representative present or available for discussion throughout the MISG. Best results are achieved when the proposed problem is discussed and refined prior to the MISG. If you are interested in representing a problem at MISG, please contact the organizer who will, if necessary help you formulate the problem appropriately for the workshop.

### Contact Details

To learn more about MISG, please contact :

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Please visit:

<http://www.utm.my/partners/utm-ciam/misg2015/>

# 3<sup>rd</sup> Mathematics In Industry Study Group Malaysia (MISG2015)

**6-10 APRIL 2015**

**RAZAK TOWER  
 UNIVERSITI TEKNOLOGI MALAYSIA  
 KUALA LUMPUR**



**ORGANISED BY:**

UTM CENTRE FOR INDUSTRIAL AND APPLIED MATHEMATICS, UTM

**CO-ORGANISED BY**

OXFORD CENTRE FOR INDUSTRIAL AND APPLIED MATHEMATICS,  
 OXFORD UNIVERSITY

INSTITUTE FOR MATHEMATICAL RESEARCH, UPM

UTM RAZAK SCHOOL OF ENGINEERING AND ADVANCED TECHNOLOGY,  
 UTM KUALA LUMPUR

DEPARTMENT OF MATHEMATICAL SCIENCES,  
 FACULTY OF SCIENCE, UTM



## Mathematics in Industry Study Group (MISG)

For the third time, Mathematics in Industry Study Group will be held in Malaysia to bring together people from a wide range of backgrounds to focus on issues with real importance and direct industrial relevance.

### What is MISG?

Mathematics in Industry Study Group is a five-day problem-solving workshop where applied mathematicians work collaboratively with representatives from industry to achieve the aim of generating new ideas and investigating potential solutions to existing industrial problems that have so far gone unsolved. The participants spend most of the week working on the problems, both discussing how to model the problems mathematically, and also analysing, solving, interpreting and reviewing the models. The nature of the workshop cultivates a highly interactive atmosphere that provides opportunities for wide exploration of ideas and synergistic collaborations.

Mathematics in Industry Study Group is a resource that offers:

- Clarification and formulation of a proposed or existing process
- Methods to solve problems of interest to the industry
- Links with applied mathematicians and scientists from top universities all around the world
- Access to advanced computing solutions and environment
- Highly cost-effective consultation
- Fresh input of new ideas

### Workshop Structure

- ✓ On the first day, the industrial representatives present the outline of their project and their objectives to the participants. Participants are free to apply their expertise to any of the projects.
- ✓ The next three days are dedicated to brainstorming, modelling and solving the problems with the guide of the industrial representative.
- ✓ On the last day, the progress and recommended routes forward are presented.
- ✓ Reports are produced later to the workshop

### Workshop Details

Experience has shown that almost any industrial problem can be presented and tackled without disclosing proprietary information. Interested parties (Industrial and Government Agencies) are welcome to participate in the following sessions:

**Day 1 (6 April 2015)**  
Problem Outline by Industries

**Day 2 (7 April 2015)**  
Problem Discussion with Industries

**Day 3 (8 April 2015)**  
Problem Formulating and Problem Solving

**Day 4 (9 April 2015)**  
Problem Solving and Conclusion

**Day 5 (10 April 2015)**  
Progress Presentation

### Fees

|                                |  |
|--------------------------------|--|
| *Academics/<br>Problem Solvers | a. RM 300/person (local)<br>b. USD 150/person (foreign)    |
| ** Observers                   | a. RM 500/person or<br>b. RM 1200 for a group for 3 person |

- \* Academics are required to attend for the length of the workshop to effectively contribute in solving the industrial problem.
- \*\* Observers (non-industrial problem contributor) are required to attend on the first and last day of the workshop. However you are encouraged to stay for all sessions.

