REGISTRATION FORM

NAME: ________________________________________________

ORGANIZATION: _______________________________________

REGISTRATION NO.: __________________________________
☐ RM 350 (Member)  ☐ RM 500 (Non-member)

ADDRESS: ____________________________________________

PHONE: _______________________________________________

FAX: _________________________________________________

EMAIL: _______________________________________________

Mode of payment (Please √):
☐ Cheque
Please make cheque payable to UNIVERSITI TUNKU ABDUL RAHMAN, and send your cheque to:
Dr. Guo Xinxin,
Faculty of Engineering and Green Technology,
Universiti Tunku Abdul Rahman,
Jalan Universiti, Bandar Barat,
31900 Kampar,
Perak, Malaysia.

☐ Bank Transfer/ Telegraphic Transfer
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Bank : PUBLIC BANK BERHAD
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Swift code : PBBEMYKL (for overseas money transfer/ telegraphic transfer)

Completed forms are to be sent to the secretariat via:
Fax : +60 5-466 7449 (Attn: Dr Guo X.)
Email : guox@utar.edu.my

PARTICIPANT FEES

- Registration fee is RM 350.00 for members of the supporting Institutions (IET Malaysia Branch, IMechE Malaysia Branch, PESDC, MACRA and Group Associated). It is RM 500.00 for non-members. The fee includes GST charges and covers workshop materials, refreshments and lunch.
- Payment shall be made in Ringgit Malaysia only.
- Closing date for registration and payment is 7th September 2015.

All payments made need to be accompanied by proof of payment (i.e. bank-in slip/photocopy of cheque/online bank transfer payment) to be emailed to the Secretariat. Registration will be confirmed only after payment has been received.

COMMITTEE

Prof. Ir. Dr. K.S. Ong (Chairman)
Dr. X. Guo (Secretary)
Dr. Lisa Ong (Treasurer)
Mr. C.C. Yang
Ir. C.L. Chan
Mr. K.C. Lai
Mr. Christopher Lim
Mr. Gabriel Goh
Dr. W.M. Chin

SUPPORTED BY

CONTACT/WEBSITE

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31900 Kampar,
Perak, Malaysia.
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Email: guox@utar.edu.my
Web URL : http://www.utar.edu.my/conference
INTRODUCTION

Climate change is one of the main issues facing the world today. Green Technology is vital for sustainable development to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. Climate change and Green Technology are inter-linked. Refrigeration and air conditioning enable comfortable environments for humans to work in. Widely used refrigerants which contribute to ozone depletion like chlorofluorocarbon (CFC, R-12) and hydrochlorofluorocarbon (HCFC, R-22) are being phased out and replaced by hydrofluorocarbons (HFC, R410A, R-32, R-134a). The mission of Centre of Environment and Green Technology (CEGT) is to develop Green Technology for the benefit of mankind with minimum impact on the Environment. It endeavors to develop links between industry and academia for net-working. This will be through short courses, workshops, seminars, symposiums and conferences.

WHO SHOULD ATTEND

Technical Supervisors involved in the maintenance of refrigerators and air conditioners from the various Industries. Academics, Researchers, Engineers, Scientists, Technologists, Industrialists, Policy-makers, Entrepreneurs, as well as members of the General Public who are interested to know more about basic refrigeration and air conditioning systems, new refrigerants and how they relate to Green Technology and climate change. This workshop will provide an educational background especially for Technical supervisors to enhance fundamental knowledge and skills to deal with the new refrigerants.

OBJECTIVE

This Workshop is intended to update and upgrade the Technical Skills and Fundamental Knowledge of air conditioning with the new refrigerants. It would also provide a common forum for Industries, researchers, scientists, engineers and practitioners to discuss the developments and applications of environmentally friendly refrigerants to help in the development and improvement of a Green and Sustainable Technology.

TOPICS

The topics that will be covered in this workshop include:

- Fundamentals of refrigeration and air conditioning.
- Understand the vapor-compression refrigeration cycle.
- Psychrometry.
- Review of CFC, HCFC and HFC refrigerants, including the environmental indices ODP and GWP.
- Why the need for phase-out of CFC and HCFC.
- Malaysia’s HCFC Phase-down Management Plan (HPMP).
- Choice of alternative refrigerants.
- Is drop-in refrigerant retrofitting permissible?
- Typical installation of air-conditioning equipment with HFC refrigerant.
- Trouble-shooting problems of air-conditioning equipment with HFC refrigerant.

A hands-on demonstration session will also be made available during the workshop.

TENTATIVE PROGRAMME

<table>
<thead>
<tr>
<th>Time</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>08.00 – 08.45</td>
<td>Registration.</td>
</tr>
<tr>
<td>08.45 - 10.15</td>
<td>Fundamentals 1.</td>
</tr>
<tr>
<td>10.15 - 10.30</td>
<td>Refreshments.</td>
</tr>
<tr>
<td>10.30 - 13.00</td>
<td>Fundamentals 2.</td>
</tr>
<tr>
<td>13.00 - 14.00</td>
<td>Lunch</td>
</tr>
<tr>
<td>14.00 - 15.30</td>
<td>Applications 1.</td>
</tr>
<tr>
<td>15.30 - 15.45</td>
<td>Refreshments.</td>
</tr>
<tr>
<td>15.45 - 17.15</td>
<td>Applications 2.</td>
</tr>
</tbody>
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BENEFITS OF ATTENDING THE WORKSHOP

- Understand the fundamentals of refrigeration and air conditioning.
- Understand the complete and basic air conditioning system.
- Understand the latest trend of refrigerants used in air-conditioning industry.
- Understand the activities initiated by the Malaysian government to curb environmental impact from refrigerants.
- Understand the differences between the existing HCFC refrigerants with the new HFC alternatives.
- Understand the handling requirements and installation precautions with the new alternative HFC refrigerants.

RESOURCE SPEAKERS

- Prof. Ir. Dr. K. S. Ong. UTAR
- Dr Chin Wai Ming, OYL Research & Development Sdn. Bhd.
- Mr. Teoh Sun Jie, Group Associated (C & L) Sdn. Bhd.