

## VENUE

Laboratory Technology Biocomposite  
(BIOCOMPOSITE)  
Institute of Tropical Forestry and Forest  
Products  
Universiti Putra Malaysia  
43400 Serdang Selangor

## FEES

Student	RM 100
Government Agency	RM 150
Industry	RM 200

\*Registration fee covers the workshop materials, hands on test samples and Equipments.

## SECRETARIAT

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(BIOCOMPOSITE)  
Institute of Tropical Forestry and Forest  
Products  
Universiti Putra Malaysia  
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## APPLICATION FORM

Please complete the following form and email to:  
anasalleza@gmail.com

### WORKSHOP ON THE AIR PERMEABILITY IN POROUS MATERIALS

21<sup>st</sup>-22<sup>nd</sup> JULY 2014

NAME (with title) : \_\_\_\_\_

ORGANISATION/INSTITUTION : \_\_\_\_\_

ADDRESS : \_\_\_\_\_

POSTAL CODE : \_\_\_\_\_

CITY : \_\_\_\_\_

TELEPHONE NUMBER : \_\_\_\_\_

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MODE OF PAYMENT :

- BANK DRAFT
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- MONEY ORDER
- JURNAL

CATEGORY :

- STUDENT
- GOVERNMENT STAFF
- INDUSTRY

Payment should be made payable to 'KIRA-KIRA AM UPM'.  
Please send the payment slip and registration form to the Secretary.



# WORKSHOP ON PERMEABILITY IN POROUS MATERIALS

21<sup>ST</sup>-22<sup>ND</sup> 2014

**SPEAKER**  
**DR. HAMID R. TAGHIYARI**

Organized by :

Laboratory of Technology Biocomposite  
(BIOCOMPOSITE)  
Institute of Tropical Forestry and Forest Products  
Universiti Putra Malaysia

## INTRODUCTION

Permeability is the ability of a porous material to transmit fluids which include liquids and gasses. It is an important physical property that influences various functions and applications of different materials. Understanding of the basics of permeability is vital in opening an avenue of knowledge application for those who are involved in the field of porous material science. In industries such as packaging, natural material preservation, construction etc, permeability determines the suitability of the materials and the extent in which they can be utilized.

## OBJECTIVES

- To provide participants with the basics in the theory of air permeability measurement;
- To cover basics in research methodology, and strategic management in research;
- To provide a practical and hands-on experience in measuring the permeability of selected materials.

## SPEAKER

Dr Hamid R. Taghiyari is the Head of Wood Science and Technology Department at Shahid Rajaee Teacher Training University, Tehran, Iran. He has extensive experience in the field of Wood Science & Technology and has published numerous works on the permeability and treatment of various porous materials. He is also the co-inventor of 2 internationally patented permeability measurement apparatus.

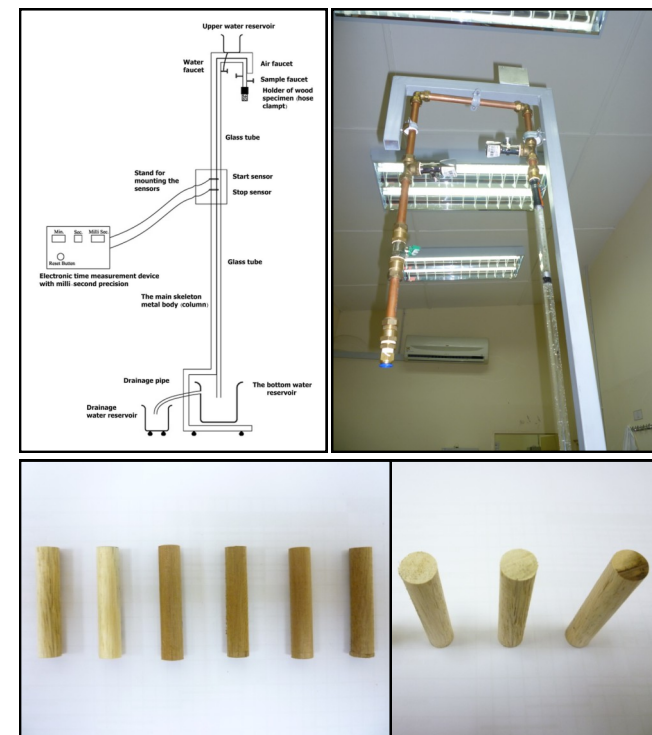
## WORKSHOP SCHEDULE

DAY 1 (Monday, July 21th 2014)	
Time	Activities
0830-0900	Registration
0900-0915	Launching by INTROP Director/Head of Laboratory
0915-1100	Lecture: Introduction on Permeability
1100-1115	Morning break
1115-1300	Hands-on: Preparation of sample
1300-1400	Afternoon break
1400-1600	Introduction on permeability apparatus; Air permeability measurement by participants.
1600-1630	Q&A (End of Day 1)
DAY 2 (Tuesday, July 22th 2014)	
0900-1100	Placement of specimens in oven for heat treatment by the participants. Lecture: Heat Treatment Methodology of research
1100-1115	Morning break
1115-1300	Lecture (continued): Heat Treatment Methodology of research
1300-1400	Afternoon break
1400-1600	Hands-on: Testing of permeability
1600-1630	Conclusion and Closing

## WHO SHOULD PARTICIPATE

This workshop is open to students, scientists, government and industrial personnel who are interested in acquiring the knowledge and understanding of the basics in permeability in porous media and its measurements.

## GAS PERMEABILITY APPARATUS



Schematic overview of the gas permeability apparatus (USPTO No. US 8,079,249, B2) equipped with single-storey milli-second precision electronic time measurement device (Approved by The Iranian Research Organization for Scientific and Technology under certificate No. 47022)