

## COURSE DETAILS

### Venue:

The Phoenix Hotel Yogyakarta  
Jl. Jenderal Sudirman 9, Yogyakarta, Indonesia

### Instructors:

Mike O'Sullivan, John O'Sullivan, Pri Utami,  
Khasani, I Wayan Warmada

### Course fee:

IDR 25.000.000 (including hotel accommodation)

## FACILITIES

- Hotel accomodation (8<sup>th</sup>-13<sup>th</sup> November 2015) at The Phoenix Hotel Yogyakarta - including breakfast & lunch
- Meeting package
- Seminar kits, modules & certificate
- A special evening & cultural dinner

## ENQUIRY\*

Lina Fermayasari (Miss)

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Gadjah Mada University – The University of Auckland



# Joint Geothermal Course 2015

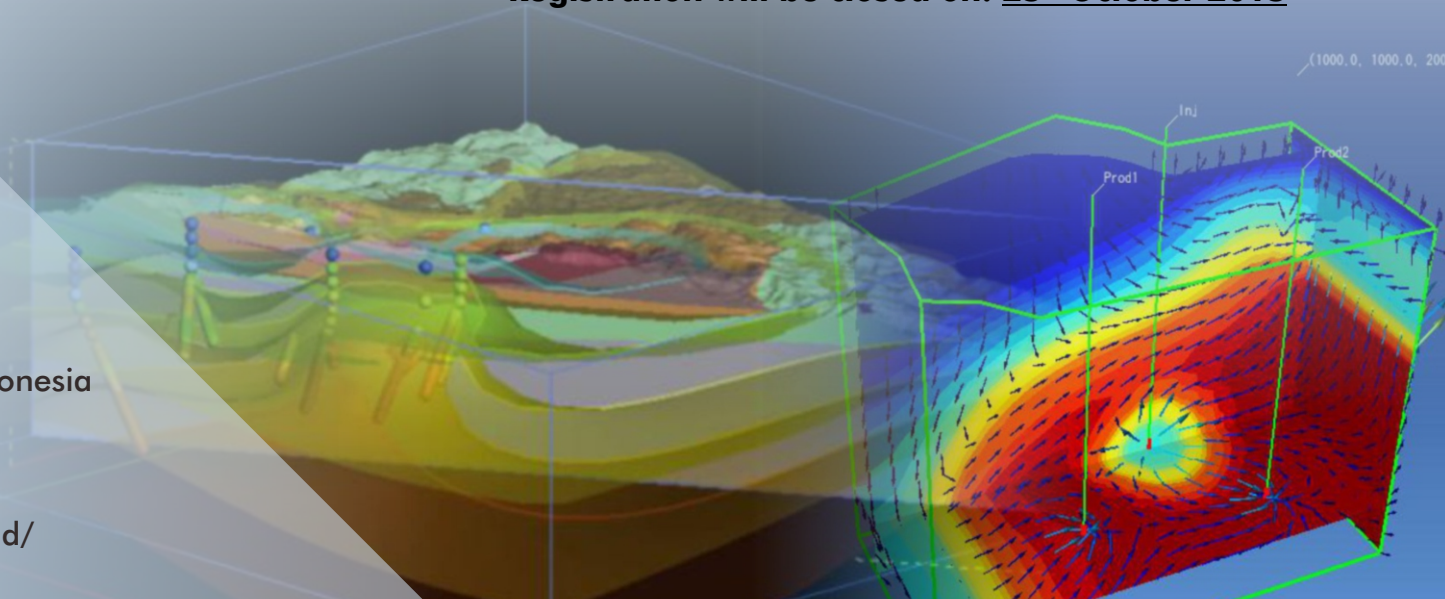
## GEOTHERMAL RESERVOIR MODELLING COURSE

9<sup>th</sup> – 13<sup>th</sup> November 2015

Venue:

**The Phoenix Hotel  
Yogyakarta, Indonesia**

**\*Registration will be closed on: 25<sup>th</sup> October 2015**



## INTRODUCTION

Following the success of running several courses in the previous years, Gadjah Mada University and The University of Auckland will soon run Joint Geothermal Course on Geothermal Reservoir Modelling that will be conducted on 9 – 13 November 2015.

The instructors are geothermal experts from Gadjah Mada University and The University of Auckland New Zealand. The course programs include exercises, discussions and attending a cultural evening in Yogyakarta.

Complete lecture notes and sets of stationary/workshop kits will be provided. However, the participants are advised to bring their own laptop. Each successful participant will receive a Certificate of Attendance. Award will be given to the best participant of each course.

A cultural evening (sponsored by Gadjah Mada University) will be organized in a beautiful suburb of Yogyakarta to introduce the culture of Java and to provide a relaxing social function and networking.

The courses are organized by The Geothermal Research Center, Faculty of Engineering and will be run at The Phoenix Hotel, Yogyakarta. We warmly invite geothermal geoscientists and engineers of Indonesia and the neighboring countries to enroll into these course programs as soon as possible due to limitation of seats. The course and lecture notes will be given in English.

## COURSE OUTLINE

### Outline:

- Types of geothermal system
- Introduction to reservoir engineering
- One-dimensional heat flow, numerical methods
- Newton-Raphson method for solving nonlinear equations
- Reservoir modelling theory
- Reservoir modelling process
- The roles of geological information on reservoir modelling
- Model design, grid construction, boundary conditions
- Introduction to TOUGH2 and MULGRAPH
- Simple, single-layer 2D reservoir model
- 1D vertical column model
- 1D radial flow to a well
- Reservoir properties evaluation using coupled wellbore and reservoir model
- 3D natural state model of a hot geothermal system
- Simple EGS model natural state and production/injection
- Reservoir Modelling Using PETRASIM
- Double porosity models, the MINC system
- Inverse modelling with iTOUGH and PEST
- Introduction to 3D Leapfrog geological modelling software

