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# CATATAN GEOLOGI GEOLOGICAL NOTES

## Kajian semula fosil ammonoid Trias dari Yong Peng, Johor

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**Abstrak:** Fosil-fosil ammonoid Trias yang ditemui dalam batuan Formasi Semantan di kawasan Yong Peng, Johor telah dikaji semula. Ammonoid *Frankites apertus* (Mojsisovics) dan *Sirenotrachyceras thusneldae* Mojsisovics telah dikenalpasti wujud di kawasan Yong Peng. Kajian biostratigrafi menunjukkan bahawa fosil-fosil ammonoid tersebut mencirikan Subzon *canadensis* yang berusia subperingkat Julian, Karnian (Trias Atas).

### A revision of the Triassic ammonoid fossils from Yong Peng, Johor

**Abstract:** Triassic ammonoid fossils discovered in Semantan Formation from the Yong Peng area of Johor is revised. *Frankites apertus* (Mojsisovics) and *Sirenotrachyceras thusneldae* Mojsisovics have been identified from Yong Peng area. Biostratigraphic study demonstrated that these ammonoid fossils characterize the Carnian *canadensis* Subzone of the *Julian* substage (Upper Triassic).

**Keywords:** ammonoid, Carnian, Upper Triassic, Semantan Formation

#### PENGENALAN

Taburan fosil ammonoid di Malaysia lebih tertumpu dalam sedimen berusia Perm Tengah hingga Trias Tengah, di mana ketika itu sebahagian besar Semenanjung Malaysia masih merupakan lembangan lautan yang agak luas yang lebih dikenali sebagai Lautan Paleo-Tethys. Lautan tersebut dihuni oleh pelbagai jenis hidupan terutama ammonoid dan dwikatup. Fosil ammonoid memainkan peranan yang penting dalam penentuan usia dan pengezonan biostratigrafi Era Mesozoik terutama pada zaman Trias (Tozer, 1971; 1994; Mietto & Manfrin, 1995; Lucas, 2010).

Kajian ini adalah berdasarkan penelitian semula fosil-fosil ammonoid Trias yang ditemui di Yong Peng, Johor oleh Sato (1964) dalam batuan sedimen Formasi Semantan. Kajian ini dibuat berdasarkan kajian biostratigrafi Trias terkini yang melibatkan pengenalpastian semula beberapa taksa ammonoid, korelasi himpunan ammonoid serta kedudukan biostratigrafinya dalam skala piawai ammonoid rantau Tethys. Pengenalpastian ammonoid juga dibuat berdasarkan maklumat terkini mengenai biostratigrafi ammonoid Trias Tengah rantau Tethys (Mietto & Manfrin, 1995) dan pemerihalhan beberapa spesies ammonoid Ladinian-Karnian oleh Mietto *et al.* (2008).

#### KAJIAN TERDAHULU

Sebanyak lapan spesies ammonoid telah diperihalkan oleh Sato (1964) berdasarkan penemuan fosil ammonoid di Yong Peng, Johor dan Temerloh, Pahang. Lima spesies ammonoid telah ditemui di kawasan Temerloh iaitu *Arpadites cf. cinensis* Mojsisovics, *Arpadites* sp., *Ceratites (Paraceratites)* sp., *Celtitide* gen. et sp. indet dan *Acrochordiceras?* sp. Tiga spesies ammonoid yang ditemui di kawasan Yong Peng pula termasuklah *Orestites?* sp., *Trachyceras (Paratrachyceras) cf. T.(P.) regoledanum* Mojsisovics dan *Trachyceratidae* gen. et sp. indet.

Menurut Sato (1964), himpunan ammonoid di Temerloh mencirikan Zon *Paraceratites trinodosus* yang berusia Anisian (Trias Tengah) manakala himpunan ammonoid di Yong Peng pula mencirikan Zon *Protrachyceras archelaus* yang berusia Ladinian (Trias Tengah) atau Karnian (Trias Atas).

#### KERANGKA GEOLOGI

Lokaliti berfosil di Yong Peng terletak dalam Zon Batuan Trias Timur (Rajah 1) dalam batuan Formasi Semantan yang berusia Trias Tengah hingga Trias Atas (Jaafar Ahmad, 1976). Berdasarkan taburan dwikatup yang dominan, Kobayashi (1964) membahagikan Zon

Batuan Trias Timur kepada dua biofasies iaitu biofasies *Daonella* dan biofasies *Myophoria*.

Biofasies *Daonella* diwakili oleh spesies-spesies *Daonella*, *Halobia* dan *Posidonia* (= *Peribositra*) yang bersekutu dengan ammonoid berusia Ladinian-Karnian manakala biofasies *Myophoria* pula diwakili oleh spesies-spesies *Costatoria* (fauna *Myophoria* s.l) yang bersekutu dengan ammonoid berusia Anisian. Himpunan fosil di Yong Peng adalah tergolong dalam biofasies *Daonella* berdasarkan kehadiran dwikatup *Halobia parallela* Kobayashi dan *Peribositra* sp. bersama ammonoid Ladinian-Karnian di kawasan yang sama.

Biofasies *Daonella* merupakan penunjuk kepada sekitaran pegenapan samudera dalam manakala biofasies *Myophoria* pula merupakan penunjuk kepada sekitaran pegenapan samudera cetek. Litologi yang diwakili oleh kedua-dua biofasies ini juga berbeza antara satu sama lain.

**PENGENALPASTIAN SEMULA AMMONOID**

Sato (1964) telah mengenalpasti tiga spesies ammonoid di kawasan Yong Peng iaitu *Orestites?* sp., *Trachyceras* (*Paratrachyceras*) cf. *T.(P.) regoledanum* Mojsisovics dan Trachyceratidae gen. et sp. indet. Dari penelitian semula monograf-monograf ammonoid tersebut, didapati bahawa *Trachyceras* (*Paratrachyceras*) cf. *T.(P.) regoledanum* Mojsisovics telah dikenalpasti sebagai *Frankites apertus* (Mojsisovics) manakala

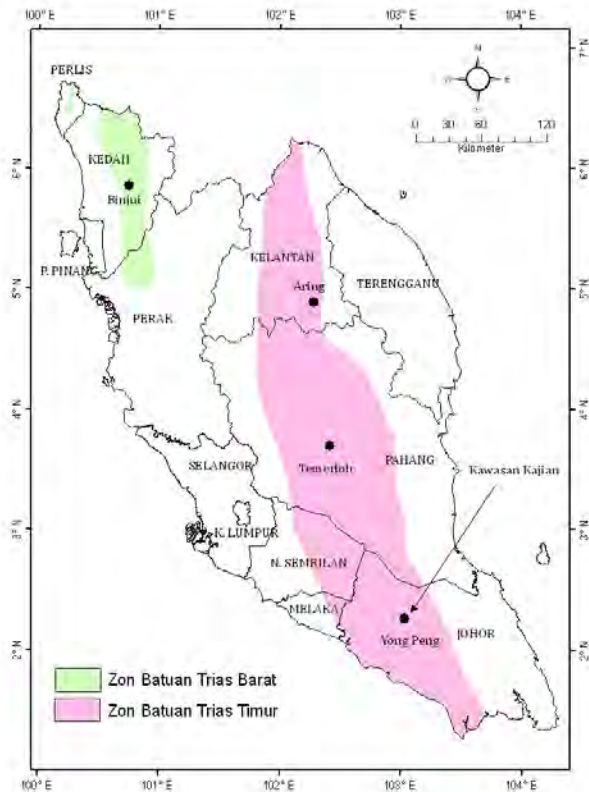
Trachyceratidae gen. et sp. indet. pula telah dikenalpasti sebagai *Sirenotrachyceras thusneldae* (Mojsisovics). Kedua-dua spesies ammonoid ini adalah spesies penciri bagi subzon tertentu dan boleh diletakkan dengan baik dalam turus skala piawai ammonoid rantau Tethys yang diperkenalkan oleh Mietto & Manfrin (1995).

**KEDUDUKAN BIOSTRATIGRAFI DAN KORELASI**

*Frankites apertus* (Mojsisovics) adalah merupakan spesies penciri bagi batas Ladinian-Karnian dan wujud dari bahagian atas Subzon *regoledanus* dalam Zon *Protrachyceras* hingga ke bahagian bawah Subzon *canadensis* dalam Zon *Trachyceras* manakala *Sirenotrachyceras thusneldae* (Mojsisovics) pula berada dalam Subzon *canadensis* dalam Zon *Trachyceras* (Mietto et al., 2008) seperti yang ditunjukkan dalam Rajah 2. Dari segi julat usia, kedua-dua spesies berada dalam usia Karnian, Trias Akhir (Rajah 3).

Ammonoid-ammonoid dari Yong Peng didapati mencirikan Subzon *canadensis* berusia Karnian, Trias Akhir walaupun himpunan fosilnya tidak mempunyai ammonoid penanda zon sama ada ammonoid *Daxatina canadensis* atau *Frankites regoledanus*. Kenyataan ini disokong juga dengan kewujudan dwikatup Karnian iaitu *Halobia parallela* Kobayashi dan ammonoid Karnian *Trachyceras aon* (Munster) yang ditemui di Kg. Lam Lee, Yong Peng.

Selain daripada dua taksa ammonoid tersebut, Subzon *canadensis* juga dicirikan oleh kewujudan spesies *Daxatina canadensis* (Whiteaves), *Trachyceras muensteri* (Wissman), *Trachyceras bipunctatum* (Munster), *Zestoceras barwicki* (Johnston), *Badiotetis eryx* (Munster), *Lecanites glaucus* (Munster) dan *Lobites ellipticus* (Hauer)



**Rajah 1:** Peta menunjukkan kedudukan kawasan kajian yang terletak dalam Zon Batuan Trias Timur. Selepas Kobayashi (1964) dan Ahmad Rosli Othman dan Mohd. Shafeea Leman (2012).

SIT	Tahap	Subtahap	Skala Piawai Ammonoid Tethys		Taksa Ammonoid		
			Zon	Subzon	Yong Peng	Aring	Binjui
TRIAS ATAS	KARNIAN	JULIAN	Trachyceras	canadensis	<i>Sirenotrachyceras thusneldae</i> <i>Frankites apertus</i>	<i>Sirenotrachyceras thusneldae</i> <i>Daxatina canadensis</i> <i>Frankites apertus</i> <i>Zestoceras lanigae</i> <i>Zestoceras cf. barwicki</i>	<i>Frankites apertus</i> <i>Anokites angustus</i> <i>Hungarites?</i> sp. <i>Zestoceras barwicki</i>
				regoledanus			
TRIAS TENGAH	LADINIAN	LONGORBARDEKIAN	Protrachyceras	neumoyi			
				kongorbardekum			
				gredleri			
				mangantsumi			

**Rajah 2:** Kedudukan biostratigrafi ammonoid-ammonoid dari Yong Peng dalam skala piawai ammonoid Ladinian-Karnian bagi rantau Tethys dan pengkorelasi dengan himpunan ammonoid dari Aring dan Binjui. Sumber dari Mietto dan Manfrin (1995), Ahmad Rosli Othman dan Mohd. Shafeea Leman (2010, 2012).

Taksa Ammonoid	Ladinian		Karnian	
	Subzon neumoyi	Subzon regoledanus	Subzon canadensis	Subzon aon
<i>Frankites apertus</i>		█	█	
<i>Sirenotrachyceras thusneldae</i>			█	

**Rajah 3:** Julat usia ammonoid-ammonoid dari Yong Peng dalam skala piawai ammonoid Ladinian-Karnian. Sumber dari Broglio loriga et al. (1999) dan Mietto dan Manfrin (1995).

seperti yang dinyatakan oleh Balini dan Jenks (2007) dan Konstantinov (2008). Menurut Balini dan Jenks (2007), taksa bagi ammonoid Ladinian Atas hingga Karnian Bawah di rantau Amerika Utara adalah sama dengan taksa ammonoid yang direkodkan di rantau Tethys.

Himpunan ammonoid ini boleh dikorelasi dengan himpunan ammonoid Subzon *canadensis* di Lokaliti QZ467, Aring (Ahmad Rosli Othman & Mohd. Shafeea Leman, 2010) dan di Binjui, Kedah (Ahmad Rosli Othman & Mohd. Shafeea Leman, 2012). Lokaliti QZ467, himpunan ammonoidnya adalah terdiri daripada *Daxatina canadensis*, *Zestoceras cf. barwicki*, *Zestoceras lorigae*, *Frankites apertus* dan *Sirenotracyceras thusneldae* manakala himpunan ammonoid di Binjui pula mempunyai spesies *Frankites apertus*, *Zestoceras barwicki*, *Hungarites?* sp. dan *Anolcites anguinus* (Rajah 2).

Korelasi secara global, himpunan ammonoid dari Malaysia ini boleh dikorelasikan dengan himpunan ammonoid Ladinian-Karnian dari Nevada (Balini & Jenks, 2008), Prati di Stuoers (Broglia Loriga et al., 1999), Spiti (Balini et al., 2008) dan British Columbia (Tozer, 1971).

### PEMERIHAN FOSIL

Tatanama bagi spesies sinonim untuk tujuan perbandingan adalah seperti berikut: \* → spesies tip yang mula diperihalkan; . → rujukan spesies yang sinonim dan diterima; ? → rujukan spesies yang diragui; non → rujukan spesies yang sebenarnya bukan seperti yang diperihalkan; p → rujukan spesies yang hanya sebahagiannya sinonim; tiada tanda → rujukan spesies tidak dapat dipastikan kesahihan tetapi tidak meragukan. Pemerihalan bagi spesies-spesies ammonoid tersebut adalah seperti berikut;

Superfamily CLYDONITACEAE Hyatt

Famili TRACHYCERATIDAE Haug

Subfamili ANOLCITINAE Mietto & Manfrin

Genus *Frankites* Tozer, 1971

*Spesies tip: Juvavites (Dimorphites) apertus* Mojsisovics  
*Frankites apertus* (Mojsisovics)

Rajah 4a dan 4b

non 1964 *Trachyceras (Paratrachyceras) cf. T. (P.) regoledanus* (Mojsisovics) – Sato: Plat 4, gambarajah 2-3, 5-7.

p 1994 *Frankites sutherlandi* (McLearn) – Tozer: Plat 82, Gambarajah 10; Plat 83, Gambarajah 8-12, non gambarajah 8 dan gambarajah 9 (= *Frankites* sp. A).

p 1995 *Frankites regoledanus* (Mojsisovics) – Mietto & Manfrin: Plat 5, Gambarajah 3, non gambarajah 4.

. 2008 *Frankites apertus* (Mojsisovics) – Mietto et al.: Plat 9d; Plat 1, Gambarajah 8; Plat 4, Gambarajah 5 dan 6; Plat 5, Gambarajah 7-17.

p 2010 *Frankites regoledanus* (Mojsisovics) – Ahmad Rosli Othman & Mohd Shafeea Leman: Rajah 2(2), non Rajah 2(1).

Secara morfologi, perhiasan cengkerang *Frankites apertus* (Mojsisovics) hampir menyerupai *Frankites*

*regoledanus* (Mojsisovics) tetapi terdapat dari segi bentuk rib, bentuk ventral dan kedudukan titik percabangan (Mietto et al., 2008). Spesimen ini dirujuk sebagai spesies *Frankites apertus* (Mojsisovics) berdasarkan rib-ribnya yang berbentuk sigmoid, rib *bifurcation* yang dominan dan kedudukan titik percabangan bermula pada satu pertiga dari bahu umbilikus. *Frankites regoledanus* (Mojsisovics) mempunyai bentuk rib falkoid, rib *bifurcation* yang amat sedikit di mana titik percabangan bermula pada bahu umbilikus sahaja yang tidak ditunjukkan dalam spesimen Sato.

Spesies *Frankites apertus* ini adalah sinonim dengan *Frankites sutherlandi* yang direkodkan dalam Subzon *laurenci* (=Subzon 2), *Zon sutherlandi* dari rantau Amerika Utara (Mietto et al., 2008; Tozer, 1994). Menurut Mietto & Manfrin (1995), *Frankites* rantau Tethys diwakili oleh *Frankites regoledanus* dan *Frankites apertus*, manakala *Frankites* dari rantau Amerika Utara pula diwakili oleh spesies *Frankites sutherlandi* (McLearn) dan *Frankites glaber* (Tozer).

Spesies ini adalah tipikal bagi rantau Tethys dan ditemui di Austria, Romania, Bithynia, Himalaya, Thailand, Nevada, Kanada dan Hungary (Mietto et al., 2008). Di Malaysia, spesies ini turut ditemui di kawasan Aring, Kelantan dalam Formasi Telong, Aring (Ahmad Rosli Othman & Mohd. Shafeea Leman, 2010) dan di kawasan Binjui, Kedah dalam Ahli Ridemit Formasi Semanggol (Ahmad Rosli Othman & Mohd. Shafeea Leman, 2012). Menurut Mietto et al. (2008), *Frankites apertus* menjadi spesies pencirian bagi batas Ladinian-Karnian dan wujud dari bahagian atas Subzon *regoledanus* hingga ke bahagian bawah Subzon *canadensis*.

Subfamili SIRENITINAE Tozer, 1971

Genus *Sirenotracyceras* Krystyn

*Spesies tip: Protrachyceras (Trachyceras) Hadwigae* Mojsisovics

*Sirenotracyceras thusneldae* (Mojsisovics)

Rajah 4b, 4c, 4d dan 4e

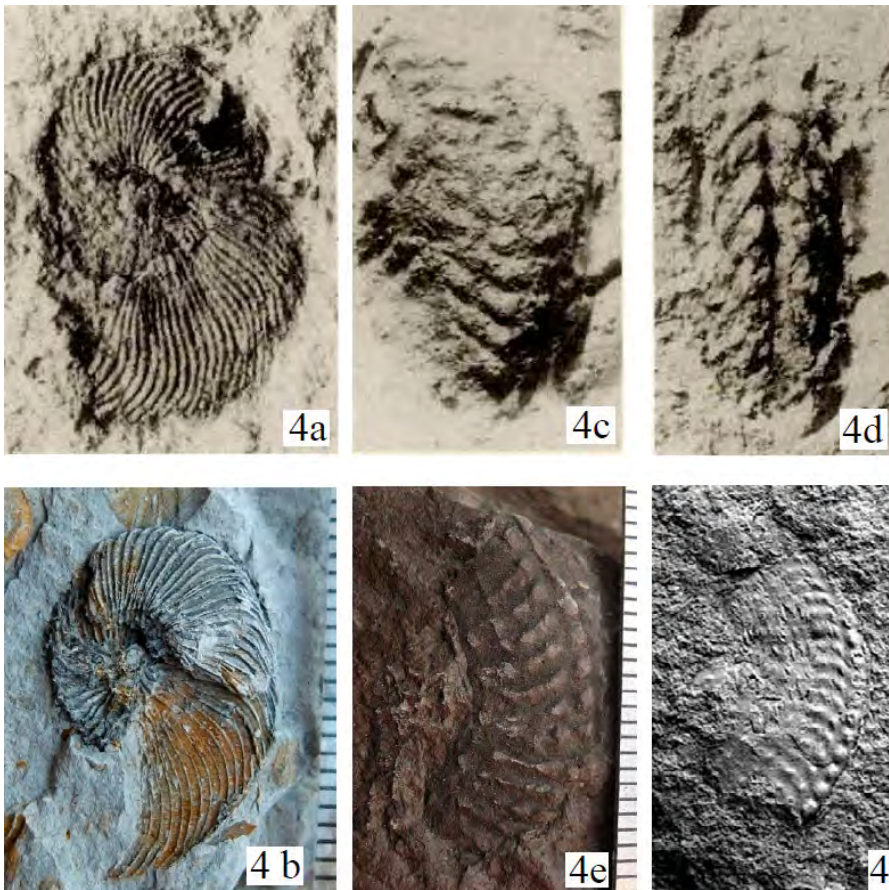
. 1964 *Trachyceratidae* gen. et sp. indet – Sato: Plat 4, gambarajah 11 dan 12.

. 2008 *Sirenotracyceras thusneldae* (Mojsisovics) – Mietto et al.: Plat 9i; Plat 1, gambarajah 2,4,6,13; Plat 2; gambarajah 1-10.

Spesimen yang diperihalkan oleh Sato (1964) merupakan serpihan dari bahagian fragmokon tanpa umbilikus. Spesimen ini dirujuk kepada *Sirenotracyceras thusneldae* (Mojsisovics) berdasarkan rib yang hanya muncul dari pertengahan rib dan semakin jelas bila menghampiri bahagian ventral. Rib agak kasar, lebih lebar dari ketak rib, terputus-putus yang membentuk 3 hingga 4 benjolan atau *node* tetapi tidak begitu menonjol dan ter bengkok secara adoral.

Spesimen ini sinonim dengan spesimen dari Stuoers Wiesen, Itali (Rajah 4f) dan spesimen dari Lokaliti QZ467, Aring (Rajah 4e) terutama dengan persamaan bentuk rib





**Rajah 4:** 4a- *Frankites apertus* (Mojsisovics), pandangan lateral, Yong Peng; 4b- *Frankites apertus* (Mojsisovics), pandangan lateral, Aring; 4c-d *Serinotrachyceras thusneldae* Mojsisovics, 4c- pandangan lateral, 4d- pandangan ventral, Yong Peng; 4e- *Serinotrachyceras thusneldae* Mojsisovics, pandangan lateral, Aring dan 4f- *Serinotrachyceras thusneldae* Mojsisovics, pandangan lateral, Stuares Wiesen, Itali.

dan bentuk ventral. Spesies ini dilaporkan wujud dalam batuan sedimen Formasi Telong di Aring, Kelantan (Ahmad Rosli Othman & Mohd. Shafeea Leman, 2010) dan di Northern Calcerous Alpas dan Southern Alps, Itali (Mietto *et al.*, 2008). *Serinotrachyceras thusneldae* (Mojsisovics) didapati sering bersekutuan dengan *Frankites apertus* (Mojsisovics) seperti yang terdapat di Stuares Wiesen, Itali dan di kawasan Aring. Persampelan lapisan demi lapisan di Southern Alps menunjukkan bahawa spesies ini boleh ditemui dalam Subzon *regoledanus* sehingga Subzon *canadensis* (Mietto *et al.*, 2008).

### KESIMPULAN

Berdasar kajian semula ammonoid-ammonoid dari Yong Peng, dapat disimpulkan bahawa:

- dua spesimen ammonoid yang ditemui oleh Sato (1964) telah dikenalpasti semula di mana *Trachyceras* (*Paratrachyceras*) cf. *T.(P.) regoledanum* Mojsisovics adalah *Frankites apertus* (Mojsisovics) manakala *Trachyceratidae* gen. et sp. indet. pula adalah *Serinotrachyceras thusneldae* (Mojsisovics).
- kedua-dua ammonoid ini mencirikan Subzon *canadensis* yang mewakili subtahap Julian, tahap Karnian (Trias Atas).
- himpunan ammonoid ini boleh dikorelasi dengan himpunan ammonoid Ladinian-Karnian di Binjui, Kedah dan di Aring, Kelantan dan juga daripada

luar negara seperti Itali, Himalaya, Amerika Syarikat dan Kanada.

- secara amnya, usia jujukan batuan sedimen Trias (Zon Batuan Trias Timur) didapati semakin muda apabila mengunjur ke selatan Semenanjung Malaysia.
- penemuan ini telah menambahkan lagi maklumat paleontologi dan biostratigrafi Trias khususnya dalam Formasi Semantan yang terletak dalam Zon Batuan Trias Timur.

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# ANUGERAH GEOSAINTEIS 2013

## Peristiwa Lampau dan Sekarang merupakan Kunci Masa Hadapan (Past and Present are the key to the Future)



**Ucapan Sempena Penerimaan Anugerah Geosaintis 2013 oleh  
Persatuan Geologi Malaysia pada 8 Jun 2013**

**Prof. Dato' Dr. Ibrahim Komoo**  
Naib Canselor, Universiti Malaysia Terengganu

Pertamanya saya ingin mengucapkan ribuan terima kasih atas anugerah oleh Persatuan Geologi Malaysia yang disayangi ini. Anugerah ini sangat bermakna dalam kerjaya akademik sebagai ahli geology kerana ia bagaikan pelengkap penghormatan rakan geologis dari Malaysia. Sebelum ini saya telah menerima anugerah dari Kelab Geologi UKM iaitu kumpulan pelajar geologi saya, dan oleh International Union of Geology Science (IUGS) mewakili rakan geologis antarabangsa. Penghormatan ini membuatkan saya lebih bersyukur dan terus mendorong untuk meneroka ilmu bagi kesejahteraan masyarakat.

Kerjaya sebagai ahli akademik (berkepakaran geologi) bermula apabila saya memperolehi Ijazah Sarjanamuda Kejuruteraan dalam bidang geologi dari UKM (1976) dan seterusnya Ijazah Doktor Falsafah (PhD) dalam bidang Kejuruteraan Perlombongan (Mekanik Batuan) dari Strathclyde University, Glasgow (1979). Selepas didedahkan dengan kursus khas selama enam minggu di Asian Institut of Technology (AIT) mengenai 'Engineering Geology for Developing Countries' pada tahun 1980, saya membuat keputusan untuk meneroka ilmu geologi kejuruteraan untuk kepentingan pembangunan negara.

Pada awal kerja, saya memilih untuk menjalankan penyelidikan mengenai 'sifat kejuruteraan batuan di Malaysia, kelakuan kejuruteraan profil luhawa dan tanah runtuh (gelinciran tanah). Tiga perkara ini menjadi isu asas dalam kerja kejuruteraan utama seperti pembinaan lebuh raya, jambatan, terowong, empangan dan bangunan tinggi. Untuk memilih kesesuaian tapak, memastikan keselamatan pembinaan dan pengoptimuman kos, maklumat kejuruteraan ini diperlukan. Sejak itu ilmu melalui penyelidikan sentiasa dicurahkan untuk pelbagai kerja pembinaan infrastruktur utama negara dalam bentuk perundingan dan penasihat teknikal. Kemuncak kerjaya ialah apabila UKM mengikhtir sumbangan keilmuan dengan melantik saya sebagai Profesor Geologi Kejuruteraan (1993) dan menyampaikan Syarahan Perdana berjudul 'Geologi Kejuruteraan Rantau Tropika Lembap' dua tahun berikutnya (Ibrahim Komoo, 1995).

Pada tahun 1994, saya telah dilantik sebagai Pengarah Bersekutu, Institut Alam Sekitar dan Pembangunan (LESTARI). Institut ini diberikan mandat untuk membangunkan ilmu Sains Kelestarian (Pembangunan Lestari) untuk kesejahteraan sejagat. Di Institut ini ahli akademik dalam pelbagai pakar ilmu (botani, zoologi, geologi, ekonomi, antropologi, perundangan) disatukan untuk menjalankan penyelidikan multi- dan trans-disiplin bagi menyelesaikan isu kelestarian. Selain menjalankan 'penyelidikan tindakan' seperti membangunkan dasar pembangunan lestari dan agenda 21 negeri, dan beberapa aktiviti pemindahan ilmu untuk menjayakan gagasan pembangunan lestari dalam konteks ilmu 'sains kelestarian', saya turut memperkenalkan ilmu multi-disiplin berasaskan ilmu geologi.

Pada peringkat awal, saya mula meneroka konsep baru dalam geologi iaitu 'penggunaan sumber geologi secara tanpa musnah'. Ini amat bercanggah dengan peranan ahli geologi semasa iaitu 'eksploitasi sumber geologi untuk bahan komoditi dan pembangunan negara. Dana penyelidikan daripada kerajaan pertama diperolehi pada tahun 1996 memberikan tumpuan kepada 'utilisasi sumber geologi untuk pembangunan pelancongan'. Projek ini telah membawa perubahan kepada set minda saya dan beberapa rakan geologis sealiran mengenai gagasan baharu pemuliharaan iaitu warisan tabii secara terintegrasi. Kami memperkenalkan pasukan penyelidikan Warisan Geologi Malaysia dan mula meneroka konsep baru dalam geologi seperti geologi pelancongan, geologi pemuliharaan, geowarisan (sumber geologi berasaskan nilai warisan), geotapak, geopelancongan dan akhirnya geopark. Kini konsep geopark telah dikenali di peringkat global dan menjadi salah satu aktiviti geosaintis utama dalam menjayakan gagasan 'pembangunan lestari wilayah'. Kemuncak sumbangan saya meneroka idea geologi pemuliharaan ialah ketika saya menyampaikan Syarahan Pengukuhan ketika diiktiraf sebagai Felo, Akademi Sains Malaysia (ASM) berjudul 'Conservation Geology: hidden treasures of Malaysia' (Ibrahim Komoo, 2003).



Sepanjang hampir 40 tahun melibatkan diri dalam dunia akademik berpaksikan bidang geologi, ada beberapa penting yang telah saya pelajari. Pertama, ilmu yang telah saya terokai dan sebarkan untuk faedah masyarakat adalah sangat terbatas, tidak melebihi setitik tinta di lautan yang luas. Lebih banyak ilmu diketahui, lebih banyak lagi ilmu yang masih belum mampu diterokai oleh ilmuan. Kita perlu akur kepada kekayaan alam dan kehebatan Penciptanya. Kita perlu sentiasa menghargai ilmu yang diterokai oleh rakan kesepakaran untuk meraikan kesajarannya. Kedua, tak mungkin mampu saya terokai ilmu yang seluas lautan itu tanpa sokongan dan bantuan ratusan rakan yang sentiasa berada di sekitaran saya. Saya tidak mampu mengucapkan penghargaan kepada semuanya, tetapi hanya menyebut beberapa nama seperti Dr. Kardinal dan Pak Tjia guru saya; Prof Hamzah, Prof Umar, Prof Ibrahim, Prof Abd Ghani, Dr Kadderi, Dr Zaiton dan Dr Juhari selaku rakan seangkatan; kepada Prof Shafeea, Prof Joy, Prof Che Aziz dan Dr Kamal Roslan pengikut sealiran; dan Dr Tajul Anuar, Dr Mogana, Dr Tanot, Sdra Lim dan Sdra Dana bekas pelajar dan pelajar yang sentiasa mempercayai saya.

Satu perkara yang sering menyentuh perasaan saya ialah hakikat ilmu geologi yang sangat penting untuk pelbagai pembangunan negara masih digunakan dengan amat terbatas. Hal ini disebabkan oleh hubungan dan pengaruh ahli geologi kepada pembuat dasar dan pihak berkepentingan sangat terhad. Masyarakat umumnya kurang menyedari ilmu geologi mempunyai hubungan yang intim dengan kehidupan mereka. Mungkinkah, kekangan ini berpunca daripada pegangan kuat ahli geologi kepada prinsip 'the present is the key to the past'? Atau perlukan kita mula memperkenalkan prinsip baharu 'the past and present are the key to the future' bagi membolehkan kita menyalurkan ilmu geologi dengan lebih selesa untuk kesejahteraan masyarakat.

## CERAMAH TEKNIK TECHNICAL TALK

### Karst Studies in Kuala Lumpur: SMART Tunnel

Hareyani Zabidi (USM)

3 July 2013

Department of Geology, University of Malaya

The talk on "Karst Studies in Kuala Lumpur: SMART Tunnel" was given by Dr Hareyani Zabidi (USM) on 3<sup>rd</sup> July, 2013 at the Dept. of Geology, Univ. Malaya, K.L.

Sdri Hareyani explained in considerable details how karst development in the limestone bedrock of Kuala Lumpur can be predicted from the studies of drainage patterns, structural trends of lineaments, and field mapping of structures/joints in the bedrock; the data are then plotted on rose diagrams for comparisons and interpretations. Borehole data from the SMART tunnel were also used, and mapping of joints were conducted on exposed limestone bedrock at the SMART tunnel project site.

The study and talk was interesting, and refreshing, to say the least. As usual, a lively discussion session followed the presentation.

Tan Boon Kong,  
Chairman, W/G on Engineering Geology,  
Hydrogeology & Environmental Geology



# KURSUS MOULDING DAN CASTING

Kursus moulding dan casting yang dianjurkan oleh Institut Alam Sekitar dan Pembangunan (LESTARI) dengan kerjasama Kumpulan Warisan Geologi Malaysia, Persatuan Geologi Malaysia dan Pusat Penyelidikan Langkawi ini telah berjalan dengan lancar di makmal program Geologi UKM pada 22-27 Julai 2013. Kursus selama 5 hari ini telah disertai oleh 10 peserta yang terdiri daripada penyelidik bidang geologi dan biologi serta pemandu pelancong yang terlibat secara langsung dalam industri pelancongan tabii. Objektif kursus yang bertujuan untuk memperlengkapi individu yang terlibat dalam menyediakan alat bantu mengajar, serta kemudahan pembangunan muzium dan pameran yang berkaitan geologi ini telah tercapai dengan penghasilan beberapa mould batuan dan hidupan yang diletakkan di pusat pameran masing-masing. Kursus yang diberikan oleh pakar taxidermi Tuan Haji Abdullah (bekas pakar taxidermi Jabatan Muzium Negara) ini telah mendedahkan peserta kepada asas moulding dan casting sehingga ke peringkat penyediaan moulding menggunakan pelbagai medium, kesesuaian mengikut tekstur dan bentuk. Teknik moulding untuk batuan, hidupan dan artifk arkeologi diberikan penekanan khusus dalam kursus ini. Program casting pula difokuskan kepada penghasilan sampel dalam jumlah yang banyak menggunakan mould yang disediakan dan keupayaan menduplikasi bentuk dan warna sampel. Peserta telah dibimbing secara hands on terhadap sampel yang dipilih dan juga beberapa sampel yang telah disediakan oleh pengajar. Berdasarkan komen daripada peserta kursus ini dijangka dapat dilakukan lagi pada masa akan datang kerana membantu dalam menyediakan bahan pengajaran dan pameran yang diperlukan.

## Tanot Unjah



Mould sampel fosil yang telah kering.



Casting katak menggunakan Plaster of Paris (POP).



Salah seorang peserta dalam proses mewarnakan mould yang telah kering mengikut rupa asal sampel menggunakan oil paint.



## CERAMAH TEKNIK TECHNICAL TALK

### Remediation of contaminated groundwater using innovative technologies

Ed Fahnline (Geosyntec)

4 September 2013,  
Department of Geology, University of Malaya

The talk on Remediation of Contaminated Groundwater using Innovative Technologies was presented by Sdr Ed Fahnline (Geosyntec) on 4th Sept, 2013 at the Department of Geology, University of Malaya, Kuala Lumpur.

Sdr Ed gave a general overview of various remediation methods for cleaning up contaminated groundwater or contaminated sites. These include chemical treatment/injection, bioremediation involving the introduction of bugs/bacteria, etc. He then presented some case studies, mostly from overseas, to illustrate the various remediation works that have been successfully implemented in the past. Unfortunately, only one case study from Malaysia was presented, perhaps indicating the scarcity of such works in this country. More details of the talk are covered in the abstract attached below.

A lively discussion followed the presentation.

Tan Boon Kong,  
Chairman, W/G on Engineering Geology, Hydrogeology & Environmental Geology

**Abstract:** Groundwater plays a growing and critical role and its protection is vital for Malaysia's prosperity and water security. The efficiency and cost effectiveness of contaminated groundwater investigation and remediation has significantly increased over the last two decades. A great number of techniques now exist but selecting and implementing the optimal approach is still a difficult task because of the unique characteristics of every site. The purpose of this presentation is to share information on innovative methods to detect and address polluted groundwater. The presentation covers (i) overview of groundwater contamination investigation techniques; (ii) methodology for developing a remedial clean-up strategy for contaminated groundwater; (iii) examples of innovative groundwater remediation technologies including enhanced in-situ bioremediation; in-situ chemical oxidation and chemical reduction; thermal remediation; and electrokinetic enhanced in-situ remediation; and (iv) optimization of existing poor performing groundwater extraction and treatment systems.

## NATIONAL GEOSCIENCE CONFERENCE 2014

Hotel Grand Continental, Kuala Terengganu  
13-14 June 2014

*Climate and Sea-Level Change  
through Geologic Time*

## CERAMAH TEKNIK TECHNICAL TALK

### The impact of geology on the design and construction of KVMRT underground works

Ooi Lean Hock & Low Yoke Yen (Gamuda)

6 November 2013

Department of Geology, University of Malaya

The talk on “The Impact of Geology on the Design and Construction of KVMRT Underground Works” was delivered by Ir. Dr. Ooi Lean Hock & Ms Low Yoke Yen (Gamuda) on 6<sup>th</sup> Nov 2013 at University of Malaya.

Dr. Ooi gave an overall view of the underground works, i.e. underground stations and tunnels, while Ms Low concentrated on the details of tunnelling. Two main geologic formations, namely the Kenny Hill formation versus the KL Limestone, present stark differences and challenges in the tunnelling and underground stations works. A short video on the TBM tunnelling in karstic limestone was shown and the potential sinkhole versus blow-out problems were well illustrated.

As usual, lively discussions followed the two presentations.

Tan Boon Kong,

Chairman, W/G on Engineering Geology, Hydrogeology & Environmental Geology



## Thirteenth Regional Congress on Geology, Mineral and Energy Resources of Southeast Asia

Yangon, Myanmar, March 2014

*Green Resources – Shared Responsibility*

<http://www.geomyanmar.org/index.html>



## CERAMAH TEKNIK TECHNICAL TALK

### A new sea turtle fossil from the Cretaceous of Morocco: Morphological evolution of sea turtles

Masataka Yoshida (Waseda University, Tokyo)

16 December 2013

Department of Geology, University of Malaya

**Abstract:** Sea turtles are reptiles that have highly adapted to marine life. The oldest known sea turtle is *Santanachelys* from the early Cretaceous of Brazil. Since then, sea turtles have radiated throughout oceans. Although many groups of reptiles including dinosaurs were heavily damaged during the Cretaceous/Tertiary (K/T) mass extinction, sea turtles survived and 8 species are known today.

We report the skull and lower jaw of sea turtle (WUSILS-RHg 494, stored in Waseda University) found from the Maastrichtian (latest Cretaceous) of Morocco. The late Cretaceous–early Paleogene phosphate beds crop out at Ouled Abdoun basin, central Morocco, and are known with the rich marine vertebrate fossil faunas such as mosasaurus, plesiosaurus and sea turtles. Although various sea turtles, including the genus *Osteopygis*, are present in the Paleogene section, only few are known from the Cretaceous beds.

WUSILS-RHg 494 shows a synapomorphy of the superfamily Chelonioidae; the loss of the foramen praepalatium. This skull has the following synapomorphies of the cheloniids (family Cheloniidae); the vomer-palatine contact anterior to the choanae, and the V-shaped narrow basisphenoid from ventral surface. The cranial morphology of cheloniid sea turtles such as the triturating surfaces should be changed for their feeding habitats based on extant species. The upper triturating surface of the cheloniid sea turtles generally forms a secondary palate composed of the premaxilla, maxilla, vomer and palatine bones. WUSILS-RHg 494 shows the prominent secondary palate and very acute angle in the snout. Its rather generalized development of the secondary plate as a cheloniid suggests its omnivorous diet. The foramen palatinum posterius is lost as in *Osteopygis* and Cenozoic cheloniids. The prefrontal is well retracted from orbital margin as common in cheloniids such as *Argillochelys africana*, *Pacificchelys urbinai* and extant *Caretta caretta*. The dentary of the lower jaw shows no symphyseal ridge on the triturating surface. The lower jaw has no surangular process unlike modern cheloniids.

These characters clearly show that WUSILS-RHg 494 is a new cheloniid taxon, and this is important for better understanding of the morphological adaptation of sea turtles during the Cretaceous Period.

## Change of Address

Vijaindran Ganesan  
2060, Lorong Nusari Bayu 7/3N,  
Taman Nusari Bayu 3,  
71950 Bandar Sri Sendayan  
Negeri Sembilan.

Wong Yien Lim  
Lot 231 Westwood  
Jalan Tabuan  
93200 Kuching, Sarawak

Nordiana Mohd Muztaza  
Geophysics section  
School of Physics  
11800 Universiti Sains Malaysia  
Penang, Malaysia

Mohd Nazran bin Mohamad Nawi,  
Institut Teknologi Petroleum Petronas (INSTEP)  
Petronas Management Training Sdn Bhd,  
Lot 9764, Mukim Batu Rakit,  
21020 Kuala Terengganu,  
Terengganu

## OBITUARY



### **D. SANTOKH SINGH**

(10 May 1931 – 2 November 2013)

D. Santokh Singh was born in Kuala Kangsar, Perak on 10 May 1931. He passed away on November 2, 2013, at the age of 82.

The late Santokh Singh had his primary education at Clifford School, Kuala Kangsar, Perak followed by secondary education at King Edward VII School, Taiping, Perak and Anderson School, Ipoh, Perak. He obtained his BSc (Hons) degree from University of Western Australia, Perth and his MSc and D.I.C. degrees from the Imperial College London.

Santokh Singh started his career in 1958 with the Geological Survey of Malaysia in Ipoh. Soon after, he was transferred to Kota Bharu as Geologist Kelantan. There he was assigned to map the geology and assess the mineral resources potential of the Gunong Stong area. He was an avid reader and a great believer in fieldwork. Subsequently, he held various positions within the Geological Survey but his main interest was in minerals, especially tin. In fact, during his MSc at the Imperial College London, he researched extensively on tin.

Santokh Singh moved to Kuala Lumpur as Deputy Director General in 1973 when the headquarters of the department was shifted from Ipoh to Kuala Lumpur. He rose to the rank of Director General in 1983 and retired in 1986. For his services to the nation he was awarded with Ahli Kelantan in 1961 and Johan Mangku Negara in 1986.

After his retirement, Santokh Singh worked as a Consulting Geologist with Osborne and Chappel (Ipoh) from 1986 to 1991.

Santokh was very active throughout his career. He played cricket, rugby and hockey for Anderson School and also for his university. He also represented Perak at cricket. As a sport enthusiast, he followed cricket and hockey games closely.

Santokh was a Life Member of the Geological Society of Malaysia and its President from 1983 to 1986. He represented the country in several international organisations. During his career he published his research findings in local and international journals.

The late Santokh Singh is survived by his wife, Rajinder Sandhu, a son, two daughters and five grand children.

*Dato' Fateh Chand*  
28 November 2013



## PERSATUAN GEOLOGI MALAYSIA GEOLOGICAL SOCIETY OF MALAYSIA

### NATIONAL GEOSCIENCE CONFERENCE 2014

The Geological Society of Malaysia is pleased to announce that the National Geoscience Conference 2014 (NGC 2014), 27<sup>th</sup> in the annual conferences, will be held at the Hotel Grand Continental from 13 to 14 June 2014. The Conference is a premier geoscientific event in Malaysia, which is well attended by geoscientists from academia as well as the public and private sectors. NGC 2014 is co-organised with the Minerals & Geoscience Department Malaysia (JMG) Terengganu and Universiti Malaysia Terengganu (UMT).

### Theme: Climate and Sea-Level Change through Geologic Time

The potential effects of ongoing and future climate and sea-level change are of major regional and global concern. An important way of predicting future patterns is by using analogs from the past. Earth's history has been characterized by substantial changes in climate and sea level at various time scales and with various driving factors. The most recent period, the Quaternary, has been characterized by orbitally-driven, high-frequency climate and sea-level change. This conference will focus on our understanding of the geological record of these changes and how that understanding can be used to predict future trends.

### Programme

The technical program of NGC 2014 consists of oral and poster presentations on all aspects of geoscience related to the theme. Presentations will be delivered by keynote speakers on topics of relevance to the theme and of national and international interest. There will be a one-day Post-NGC 2014 Fieldtrip to several Terengganu offshore islands.

### Call for papers

Once again, we seek your support to ensure the success of NGC 2014. Participants are invited to present papers on original research either in English or Bahasa Malaysia for the Technical Sessions. Contributors may submit more than one paper, however the Organising Committee has the right to select only one paper by any first author for oral presentations, while the rest will be for poster presentations. Priority will also be given to papers with full manuscript. Please come and share your experiences, ideas and expertise for the benefit of our country and future generations.

Those who would like to present papers are required to submit an extended abstract. The extended abstract should be between 500 to 750 words long, can have up to 3 figures and/or tables and must have at least 3 references. Abstracts of accepted papers will be distributed to all participants of NGC 2014. Full papers will be reviewed and published in the Bulletin of the Geological Society of Malaysia. Manuscript requirements can be downloaded from <http://geology.um.edu.my/gsmpublic/NGC2014/Instruction.pdf>.

### Post-NGC 2014 Conference Fieldtrip

Location: Pulau Bidong and surrounding islands  
Date: 15<sup>th</sup> June 2014 (Sunday)  
Number of participants: Maximum 20  
Charges: RM 90.00 per person

The geology of the Terengganu islands is quite interesting and includes granitic, meta-sedimentary and volcanic rock types of generally late Paleozoic age. Evidence of higher Holocene relative sea level is preserved in places in the form of emergent oyster and other marine calcareous encrustations, intertidal to emergent fossil coral reefs, and elevated beach rock. The coastlines of the islands and surrounding waters are ideal for study of modern sedimentary processes. There are a UMT research station and remains of a Vietnamese refugee camp on Pulau Bidong.

## REGISTRATION FORM

### PERSATUAN GEOLOGI MALAYSIA GEOLOGICAL SOCIETY OF MALAYSIA



# NATIONAL GEOSCIENCE CONFERENCE 2014

Hotel Grand Continental, Kuala  
Terengganu  
13-14 June 2014

## Climate and Sea-Level Change through Geologic Time

Please complete and return this form to:

National Geoscience Conference 2013  
Geological Society of Malaysia  
c/o Department of Geology  
University of Malaya  
50603 Kuala Lumpur, Malaysia  
Tel: (603) 7957 7036 Fax: (603) 7956 3900  
Email: [geologicalsociety@gmail.com](mailto:geologicalsociety@gmail.com)

You may also download the pdf registration form from [http://geology.um.edu.my/gsmpublic/NGC2014/first\\_circular.pdf](http://geology.um.edu.my/gsmpublic/NGC2014/first_circular.pdf) and email the completed form to the above email address.

**PERSATUAN GEOLOGI MALAYSIA**  
GEOLOGICAL SOCIETY OF MALAYSIA  
**NATIONAL GEOSCIENCE CONFERENCE 2014**

Name: \_\_\_\_\_

Profession: \_\_\_\_\_

Organisation: \_\_\_\_\_

Address: \_\_\_\_\_

Membership Type: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Name & age (for children) of accompanying person(s)

- I would like to attend NGC 2014
- I would like to join the Pre-Conference Fieldtrip
- I would like to present the following paper(s)

1. \_\_\_\_\_

2. \_\_\_\_\_

Please email the abstract(s) to [geologicalsociety@gmail.com](mailto:geologicalsociety@gmail.com)

Signature \_\_\_\_\_ Date \_\_\_\_\_

**Deadlines**

Submission of abstract: 1 March 2014  
Submission of full manuscript: 1 April 2014  
Early Registration: 30<sup>th</sup> April 2014

**Registration**

All intending participants are advised to register early to facilitate the planning of the Conference. Registration fees will cover conference material, lunch and refreshment. Payment by crossed cheque or bank draft is acceptable and should be made payable to the "Geological Society of Malaysia". Payment can also be made by banking in directly to the Geological Society of Malaysia, Standard Chartered Bank, current account no. 794 1054 02263. Please fax or email the bank-in-advise slip to the Society for verification.

Membership	Early Registration	Late Registration
Presenters	RM 100	RM 120
Full/associate/life members	RM 100	RM 120
Non-members	RM 140	RM 170
Spouse/family of members	RM 80	RM 100
Student members	RM 50	RM 80
Student non-members	RM 80	RM 100
Children below 5 years	free	free

**Accommodation**

Accommodation is at the participant's own expense. Participants are advised to make early room reservations. For reservation, please contact the hotel:

Hotel Grand Continental, Kuala Terengganu  
Tel: +609 625 1888  
Fax: +609 625 1999  
Email: [reservation\\_kt@ghihotels.com.my](mailto:reservation_kt@ghihotels.com.my)  
Website: <http://www.ghihotels.com.my>

**Other hotels around Kuala Terengganu :**

Hotel Tanjung Vista: 09-631 9988  
Primula Beach Hotel : 09 622 2100  
Hotel Seri Malaysia : 09-623 6454

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**PERSATUAN GEOLOGI MALAYSIA**  
GEOLOGICAL SOCIETY OF MALAYSIA



**NATIONAL  
GEOSCIENCE  
CONFERENCE 2014**

**Hotel Grand Continental, Kuala  
Terengganu**  
**13-14 June 2014**

**Climate and Sea-Level Change  
through Geologic Time**



Co-organiser  
**Jabatan Mineral & Geosains Malaysia**  
**Universiti Malaysia Terengganu**

**CALL FOR PAPERS**



## YUTP Charity Golf 2013

On 12 October 2013, Universiti Teknologi PETRONAS had successfully organized “YUTP Charity Golf ” in conjunction with UTP 13th Convocation, at Kelab Golf Sultan Abdul Aziz Shah (KGSAAS), Shah Alam Selangor. The objective of the charity golf event was to raise fund for Yayasan UTP Bursary which is to be awarded to deserving students for their studies in the university.

The event was attended by our Pro-Chancellor and PETRONAS Chairman, Y.Bhg. Tan Sri Mohd Sidek Hassan as the Guest of Honor, our Vice Chancellor, Y.Bhg. Datuk Ir. (Dr) Abdul Rahim Hj Hashim, and several PETRONAS Vice Presidents. The YUTP Charity Golf 2013 managed to attract participation from industry such as PGCE, ExxonMobil, Bredero Shaw, Deleum Berhad, Dialog, Techsource, Halliburton, Makhostia, Talisman, TH Heavy Engineering, PBJVgroup Sdn Bhd, Murphy, Technip, Baker Hughes, Exxim Bank, Satcom Sales & Services, Bumi Jiwa and Winpower Corporation.

The event started with registration and breakfast at 6.30 am. After that the participants had a group photo with Y.Bhg. Tan Sri Mohd Sidek Hassan to capture the moments, and at 8.00 am sharp the tee-off started according to flight arrangement by the organizer.

After all the participants had their great time swinging their “club”, they proceeded with lunch at 12.45 pm. During the lunch, music from UTP Gamelan Group’s first album that was just released in September 2013, was played. Lunch continued with speech by our Vice Chancellor, Y.Bhg. Datuk Ir. (Dr) Abdul Rahim Hj Hashim, and followed with presentation of mock cheque by all sponsors and donors to our Vice Chancellor, representing the Yayasan UTP and witnessed by our UTP Pro Chancellor and Chairman of PETRONAS, Y.Bhg. Tan Sri Mohd Sidek Hassan.

YUTP Charity Golf 2013 managed to secure almost RM 0.5 million for Yayasan UTP fund.

On behalf of organizing committee, we wish to extend our utmost appreciation to our Honourable Vice Chancellor, Y.Bhg. Datuk Ir. (Dr) Abdul Rahim Hj Hashim, 13th Convocation Chairman, En. Solihuddin Ahmad Nasarudin and the COO, En. Syazwan Amarjit for the continuous support, advice and guidance. Special thanks to AP Dr Azrai Abdullah for being the Master of Ceremony and to my team and colleagues from various departments, thank you for demonstrating a very good team work and cooperation in making the event a successful one.

*M Hatta B Amran (ACADEMIC/UTP)*



# BAKER HUGHES TECHNICAL TALK



## “Role of Geoscience in Oil & Gas Industry – Formation Evaluation”

13 November 2013

Geology Department, University of Malaya



A technical talk sponsored by Baker Hughes had been organized by the AAPG Student Chapter of University Malaya on the 13th of November 2013 and had been held at the geology department, University of Malaya. The main objective of this technical talk is to expose the students about the role of geoscience in an oil and gas industry by exposing them to the evaluation of the formation besides exposing them the scope of work as a geoscientist. The title of the talk is “Role of Geoscience in Oil and Gas Industry – Formation Evaluation” and was given by the speakers from Baker Hughes, Mr. Wong Kum Seng and Mr. Mike Orr.

Through this event, participants were exposed with various types of reservoir evaluations. This includes Surface Logging Systems (SLS), Logging While Drilling (LWD), Wireline Logging (WL), Coring and Core Analysis, and Drill Stem Testing. Participants were also exposed with the important aspects in evaluating a formation or specifically a potential reservoir. These aspects include the thickness and extent of the reservoir, its porosity, permeability, water saturation and its resistivity. These aspects can be evaluated by a direct method which is by means of analyzing a core and several other indirect methods which require mathematical operations.

The event which started at 2.00pm and ended at 5.00pm was open to all undergraduate and postgraduate students of geology department, University of Malaya and was also attended by fellow geology students from University Kebangsaan Malaysia (UKM). The event started at 2.00 pm with the arrivals of speakers and participants and registration of participants. The talk started at 2.30pm until 4.00pm and there were 30-minutes Q&A session after the talk. After the talk, the president of AAPG Student Chapter of University of Malaya, Fatin Fariha Mohd Wafa had given her speech. The event proceeded with the submission of curriculum vitae for those interested applying for internship with Baker Hughes. At the end of the event, participants were provided with refreshments and there was a photography session for the speakers and participants.

Some weaknesses encountered during the program include the lateness of starting the event while the speakers arrived one hour earlier and some disruptions in the flow of event when students are going in and out of the venue while the talk was given. Suggestion to encounter this problem is to provide a room for the speakers where they could rest before the event start and for the protocol bureau to control more on the flow of the event. Although there were some problems encountered during this one-day event, the event was overall successful.

Highest appreciation is extended to all members, non-members, participants, staff and lecturers, especially Dr Ralph Kugler, our advisor for their assistance and guidance.

*Noor Faherah Hidayah Binti Ahmad Tamizi  
Secretary, Baker Hughes Technical Talk 2013,  
AAPG Student Chapter, University of Malaya.*





## OIL AND GAS FESTIVAL 2013 (OGFEST'13)



### “Human Integrity, Empowering Technology & Environmental Tranquility”

20 – 21 November 2013

Universiti Teknologi Malaysia (UTM), Skudai, Johor Darul Takzim.

AAPG student chapter, University of Malaya had been invited to participate in OGFEST'13, an event organized by the SPE-UTM (Society of Petroleum Engineers, Universiti Teknologi Malaysia) student chapter. It is a new event which includes Asia Pacific SPE Student Chapter Conference, Student Competitions, Forum, Career and Technical Talks. Student competitions are one of main attraction provided in this festival, which are Petrobrain competition, Paper Presentation competition, Oil Rig Competition, Mud Innovation competition and lastly, Green Photography contest. The aims of this event include giving deeper understanding to every participants toward the latest development and technologies in oil and gas industries; bringing together students and experts related to oil and gas industry to present their results and exchange experience, ideas, and solution regarding oil and gas problems; and strengthening kinship and friendship among students between universities and the Oil and Gas industry experts with the theme of “Human Integrity, Empowering Technology & Environmental Tranquility”.

A total of 73 students of second, third and final year students from the geology department, University of Malaya had participated in this two-day event which was held at Universiti Teknologi Malaysia, Skudai, Johor. A total of 15 students were sponsored a total of RM3000 by ConocoPhillips to participate in this events.

On Tuesday, 19th of November, two busses from University of Malaya had departed to Skudai where the participants were brought to the arranged accommodation. The registration for the audiences and participants of the event started at the next morning from 8.30am to 9.30 am which was held at Sultan Ismail Hall of Universiti Teknologi Malaysia. Almost all of the talks, conferences, competitions and exhibitions were also held in the same building. After the registration, the opening ceremony started at 9.30 and had been inaugurated by the dean of the Petroleum Engineering Faculty. This prestigious event was also participated by international students from various universities from China and Indonesia. After the opening ceremony, participants were invited to visit the exhibition booths.

The exhibition booths were quite informative as the speakers for respective booths shared their knowledge and experience in the oil and gas industry. There were also chances for the participants to drop their CVs especially at the Petronas and Scomi booths. The exhibitors which participated in the event includes SapuraKencana Petroleum, Petronas, Halliburton Energy, Schlumberger, Baker Hughes, Scomi and many other renowned companies in the industry. The exhibition booths were open for both days and most of the participants filled in their free times between the talks to visit the booths. Apart from the exhibition booths, there was also a booth for career counseling where the participants got their free counseling session.

The talks given during the event were divided into two which were the career talks and the technical talks. Though the career talks were quite popular among the participants since most of them are interested in pursuing career in the industry, the technical talks from various companies were also informative. The cons are that some of the talks were held at different venue but at the same time and the seats provided were limited and thus the participant had have to choose of which talks to attend which is quite disappointing especially for the enthusiast.

During the same time the talks is given, various competitions are also held at other venues. University of Malaya had only sent representatives to participate in one of the competition which is the Petrobrain competition which is a quiz regarding petroleum engineering. Our proud representatives consisted of Umami Athirah, Ungku Nur Natasya and Muhammad Hafiz. Though they were eliminated in the first round, their lost was a prideful one since the questions were more into the technical part of the petroleum engineering. However their experience in participating was sure a meaningful experience.

During the night of the first day, there was a barbeque night with the theme of rock-and-roll prepared for the participants. This was held at the lakeside of Universiti Teknologi Malaysia's lake. Apart from delicious foods, the cultural performances from fellow participants of other universities were also interesting. The participants had a nice time mingling with each other while networking and making new friends.

During the second day, the exhibitions and the talks were held, which were the same as the first day and a forum was also held. The closing ceremony later started at 3.00pm where there was prize giving ceremony held after the closing speech. The ceremony ended at 5.00pm and fellow participants from Institut Teknologi Bandung

(ITB) won the title as the best participants as they got their wins in almost all the competition held. Our respective participants departed back to University of Malaya at the next morning.

Some weaknesses encountered during the program include the miscommunication between the committees and the logistics company and miscommunication between the committees and the participants especially regarding the flow of events. These problems are regarded as due to lack of experience in handling the participation in such a big event. Suggestion to encounter this problem is protocol bureau to control more on the flow of the event and other committees to give assistance and cooperation though it is outside of their scope of works. Although there were some problems encountered during participation in this event, it was overall successful.

Highest appreciation is extended to Conoco-Phillips for the sponsorship, and to all members, non-members, participants, staff and lecturers, especially Dr Ralph Kugler, our advisor for their assistance, guidance, and understanding.

Noor Faherah Hidayah Binti Ahmad Tamizi  
Secretary, OGFEST'13,  
AAPG Student Chapter, University of Malaya.





## UPCOMING EVENTS

March 10 - 11, 2014: Thirteenth Regional Congress on Geology, Mineral & Energy Resources of Southeast Asia (GEOSEA), Yangon, Myanmar. Tel: +(959) 2042054; Fax: +(951) 552901; <http://www.geomyanmar.org/index.html>

April 3-5, 2014: Soil-Waste-Water 2013 workshop, Landau, Germany. [www.soil-waste-water.de](http://www.soil-waste-water.de)

May 11 – 16, 2014: 5th Edition of the International Congress on Arsenic in the Environment will be held in Buenos Aires, Argentina. Details can be found at: <http://www.as2014.com.ar>

May 27 - 29, 2014: 2014 LIPE Forum & AAPG Northern Arabia Geoscience Conference, Beirut, Lebanon. Contact: [middleeast@aapg.org](mailto:middleeast@aapg.org)

June 2 - 6 2014: World Landslide Forum III. China National Convention Center, Beijing. Theme: "Landslide Risk Mitigation Towards a Safer Geo-Environment". <http://icl.iplhq.org/HomePage.aspx?TabID=4945&Site=Portal&Lang=en-US>

June 13 - 14 2014: Geological Society of Malaysia National Geoscience Conference 2014, Hotel Grand Continental, Kuala Terengganu. Theme "Climate and Sea-Level Change through Geologic Time"

June 11-12, 2014: 3rd Tight and Shale Gas Summit, Edinburgh, UK. Contact: Justyna Korfanty; Tel: +44 (0) 20 3141 0607; email: [jkorfanty@acieu.co.uk](mailto:jkorfanty@acieu.co.uk)

June 14 - 17 2014: Storm Warning. Water, Energy and Climate Security in a Changing World. Beijing, China. <http://www.iseis.org/sw2014/>

June 15 - 18 2014: Geohazards VI. Canadian Geotechnical Society. Kingston, Ontario, Canada. <http://www.geohazards6.ca/index.php>

September 1 – 5, 2014: The International Mineralogical Association 21st general meeting (IMA 2014 – Delving Deeper: Minerals as Mines of Information). Johannesburg, South Africa. <http://www.ima2014.co.za>

September 15-18, 2014: IAEG X11 Congress. Torino, Italy. Theme: "Engineering Geology for Society and Territory". <http://www.iaeg2014.com/>

September 1 - 5 2014: 21st Business Meeting of the International Mineralogical Association (IMA2014), Johannesburg, South Africa. [www.ima2014.co.za](http://www.ima2014.co.za), email: [info@ima2014.co.za](mailto:info@ima2014.co.za)

September 8 - 12 2014: 3rd Slope Tectonics Conference. Trondheim, Norway. <http://www.ngu.no/slopetectonics>

September 15 - 18 2014: IAEG XII (International Association of Engineering Geology and the Environment) Congress. Torino, Italy. <http://www.iaeg2014.com/>

September 24- 26 2014: XXth Congress of the Carpathian Balkan Geological Association. Tirana, Albania. email: [info@cbga2014.org](mailto:info@cbga2014.org), [www.cbga2014.org](http://www.cbga2014.org)

September 27 - 30 2014: Society of Economic Geologists (SEG) 2014 Conference: Building Exploration Capability for the 21st Century, Keystone, Colorado, USA. [www.seg2014.org](http://www.seg2014.org)

September 28 - 3 October 2014: 4th International Palaeontological Congress, Mendoza, Argentina. email: [secretary@ipc4mendoza2014.org.ar](mailto:secretary@ipc4mendoza2014.org.ar), <http://www.ipc4mendoza2014.org.ar/>

November 12 – 19, 2014: IUCN World Parks Congress 2014, Sydney, Australia. The Congress will serve as a vital link to achieving IUCN's overall vision of a "just world that values and conserves nature". <http://www.iucn.org/>

December 10-12, 2014: The 8th edition of International Petroleum Technology Conference (IPTC), Kuala Lumpur Convention Centre in Kuala Lumpur, Malaysia. [www.iptcnet.org/2014/kl](http://www.iptcnet.org/2014/kl)

May 4 - 8 2015: VI Cuban Earth Science Convention and Geoproduction Conference Palace, Havana, Cuba. [www.cubacienciasdelatierra.com/](http://www.cubacienciasdelatierra.com/)

May 26 - 27 2015: The IIIrd International Geological Conference "AtyrauGeo - 2015" on CASPIAN SEA REGION: problems of structure and oil-and- gas occurrence of deep-seated complexes and pools and the genetic nature of hydrocarbons. Atyrau City, Kazakhstan. [www.ongk.kz](http://www.ongk.kz)

September 13 - 17 2015: XVI ECSMGE 2015– Geotechnical Investigation for Infrastructure and Development, Edinburgh, United Kingdom. <http://xvi-ecsmge-2015.org.uk/>

August 27 to September 5 2016: The 35th International Geological Congress: Cape Town, South Africa. Danie Barnado, Secretary-General: 35th IGC. [barnardo@geoscience.org.za](mailto:barnardo@geoscience.org.za); <http://www.35igc.org>

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Title must be informative and reflects the content of the paper. Title in Malay should include an English translation. It should be concise (less than 20 words). Avoid using abbreviation in the title.

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### *Article in Malay:*

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Please make sure that all illustrations are useful, necessary and of good quality. A maximum of ten (10) illustrations (photographs, graphs and diagrams) are allowed and these should be cited in the text and numbered consecutively as Figures. The papers are usually published in black-and-white but it may sometimes be possible to include colour figures at the author's expense. The scales for maps and photomicrographs should be drawn on the figure and not given as a magnification. Originals should not be greater than A4 size and annotations should be capable of being reduced down to 50 percent. The caption should be listed on a separate piece of paper. Do not insert the illustration within the text.

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# WARTA GEOLOGI PERSATUAN GEOLOGI MALAYSIA

Newsletter of the Geological Society of Malaysia

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