

## ASEG-PESA 2015: reflections

The numbers grew and grew: geologists and engineers and geochemists joining geophysicists in registering for the 24th ASEG-PESA Geophysical Conference and Exhibition. In the end, 1232 geoscientists from 25 countries came together in the Perth Convention and Exhibition Centre for six days of workshops and conference sessions. The fantastic turn-out was testament to the efforts of the volunteer conference organising committee, the professional conference organisers EECW, workshop organisers, and the great sponsorship and exhibition support at all levels. Special recognition goes to our Platinum Sponsor Western Geco and our Gold Sponsor BHP Billiton.

Here is a quick statistical snapshot of the conference:

- 1232 delegates from 25 countries
- 90 exhibitors
- 21 conference sponsors and 11 workshop sponsors
- 29 oral keynote papers, 164 regular oral papers, and 130 posters (all abstracts are now available via <http://www.publish.csiro.au/nid/268/issue/8090.htm>)
- 12 workshops, of which three were 2 days long
- 6 official social events and an untold number of unofficial ones!

We were spared the scorching days always possible in Perth in February, and the conference began with an outdoor icebreaker

on the lawn of the convention centre. The good food and drink continued for three more days, including a conference dinner at the summit of Kings Park with a night-time view over the city and the Swan River.

The 2015 conference chose to showcase the interpretation side of geophysics – the effort to turn data into geological information via the theme ‘Geophysics and Geology together for Discovery’. This theme was taken to heart by the technical papers committee, and whole days were fashioned in this mould, helped by a stellar line-up of keynote speakers in all streams, many of whom were not geophysicists. Workshops ran independently from the main conference, with no requirement to register for the conference in order to attend a workshop. This helped to draw in local delegates, who pushed the numbers to over 435 people across the three days of pre- and post-conference workshops.

The publicity effort helped draw many local non-geophysicists in the last weeks before the conference, swelling the delegate numbers and reinforcing not only that geophysics is interesting to non-geophysicists as well, but that we do all need and want to work together for the common discovery goal. Twenty percent (243) of delegates came from overseas, continuing the international status of



Large crowds of smiling faces characterise the 2015 ASEG-PESA conference in Perth.



The 2015 Conference Organising Committee on stage during the closing plenary. (Left to right) Adrian Noetzli (Students), Chris Wijns (Minerals Co-Chair), Michael Lees (Exhibition), Kristian Madaschi (Social), Paul Bouloudas (Petroleum Co-Chair), Mike Dentith (Minerals Technical), Ian James (Near-surface Technical), Andrew Long (Petroleum Technical), Katherine McKenna (Sponsorship), Amanda Carreno (Social), Lena Thrane, Tobias Colson (Publicity), Dave Annetts (Workshops and USB Editor). Absent: Andrew Fitzpatrick (Treasurer).

these conferences and the view that it is worth travelling around the world to attend. The exhibition is a big part of any conference, and with 90 exhibitors this year, including some from overseas, we filled most of two halls, even driving in a couple of seismic trucks.

Students received a large focus. During a dedicated high school student day, volunteer professional geophysicists and university students gave talks and led the high schoolers around the exhibition floor. Support from the EAGE meant that the three winners of the university student quiz night are off to Madrid very soon for the next EAGE conference, all paid for by the EAGE. Talk about incentive to remember those facts from the lectures!

One more round of applause to the 2015 organising committee for putting such a lot of personal time into a tremendously successful conference. Another show of thanks goes to a host of sponsors, without whom a conference could not eventuate, and the speakers and poster presenters who gave their time in ensuring the great technical content. And, a final but resounding acknowledgement of all the delegates, who together, gave the buzz and excitement to this conference.

We hand the baton and best of luck to the 2016 Adelaide conference committee, where we look forward to seeing everyone gathered again.

*On behalf of the 2015 Conference Organising Committee,  
Chris Wijns (Minerals Co-Chair)*

## ASEG-PESA 2015: ASEG Honours and Awards

### ASEG Gold Medal: Dr Terry Lee



*Dr Terry Lee.*

Dr Terry Lee has been awarded the ASEG Gold Medal for his theoretical and mathematical developments to exploration geophysics, specifically in the field of transient electromagnetics. The ASEG Gold Medal is awarded from time to time for exceptional and highly significant distinguished contributions to the science and practice of geophysics by a Member, resulting in wide recognition within the geoscientific community. Terry has been a Member of the ASEG since 1971.

Terry was awarded a Doctor of Science degree from the University of Tasmania in 1986 for published work that was

recognised by scholars in the field of transient electromagnetics as a distinguished original contribution to scientific knowledge, so as to give the candidate authoritative standing in that field. Previously he was awarded a BSc. Melbourne; BSc. Hons. Tasmania; MSc. New England; PhD Macquarie; and BA Hons (Art History) Sydney.

From 1975 to 1983 he was employed as research geophysicist with geophysical consultants L.A. Richardson and Associates in Sydney, later incorporated into Geopeko Ltd, where he was responsible for all theoretical research into exploration geophysics, including gravity, magnetic, radiometric, electrical and in particular transient electromagnetic methods. During this time he was also a Visiting Fellow at the Cooperative Institute for Research in Environmental Sciences at the University of Colorado. In 1983 he joined Bureau of Mineral Resources in Canberra where his responsibilities included research into potential fields, heat flow, remote sensing and transient electromagnetics. He has consulted in theoretical geophysics to exploration companies and in 1991 he was invited to be a member of the Editorial Board of the Journal of Applied Geophysics.

Terry has been a pre-eminent contributor to the field of useful analytical solutions to problems in electromagnetic prospecting. This work provided checks for numerical solutions and has practical applications in their own right. Important contributions include formulations for the response of half spaces, layered earths, and spheres, in addition to fundamental contributions to the understanding of the effects of polarisable bodies and superparamagnetism in TEM. He has also made theoretical contributions in remote sensing, potential field theory and resistivity. Terry's work has influenced science outside exploration geophysics.

Some of these contributions were recognised by the ASEG with the Grahame Sands Award for Innovation in Applied Geophysics in 1991. Previously in 1976 the EAGE awarded him their Van Weelden Award for the best paper by a person under 30 years of age for two papers on transient electromagnetics. Terry has also received the Primary Industry and Energy Achievement Award in 1993 for Outstanding Technical or Design Innovation for Coastal Geoscience using remote sensing.

Following his retirement from BMR Terry continued to be active in research, publishing 13 papers in scientific journals after 1991. Seven of these utilise the concept of the 'moments of the impulse response' published with several co-authors, although the concept is acknowledged as solely Terry's idea. The concept is used routinely in airborne EM processing resulting in software programmes of significant use to exploration geophysicists by making 3D EM inversions practical on desktop computers.

Terry has been a quiet achiever often working in the background to the mainstream explorationist. Theoretical geophysics is not regular currency among the vast majority of exploration geophysicists and often taken for granted. So it is probably true that there is not a wide range of applied, exploration geophysicists that know about and could understand the intricacies of the body of work comprising 57 papers that Terry has written or co-authored. Many would be surprised to learn that this work covers time and frequency domain electromagnetics, in addition to resistivity, gravity, magnetics, radiometrics, remote sensing, heat flow, crustal deformation, geomorphology and mathematics. By any measure this body of work in itself is exceptional and significant.

Terry's work has received accolades and support from a wide and diverse range of geophysicists in Australia and around the world, including industry geophysicists, consultants and contractors, and researchers. Such appreciation of this type of work is very rarely seen for an Australian geophysicist. Terry's remarkable volume of contributions to Australian and world-wide geophysics, and the wide recognition this work has gained within the geoscientific community, readily constitute the Gold Medal criteria for exceptional and highly significant distinguished contributions to the science and practice of geophysics.

#### *Honorary Membership of the ASEG: Barry Long*



*Barry Long.*

ASEG Honorary Membership has been awarded to Barry Long for his significant contribution to seismic data acquisition, and distinguished contribution to ASEG over many years.

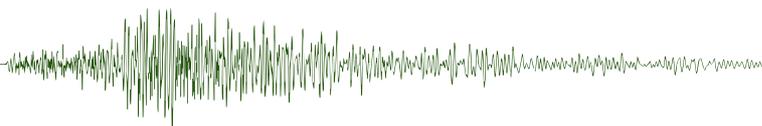
Barry studied at University of NSW, originally in Physics, where he obtained a 1st Class Honours Degree. He then became the first student ever at the University to change faculties during his Ph.D. He moved to the Geology Department and started a PhD in Geophysics, which was never submitted as he chose to pursue his consulting work, subsequently joining Velocity Data as a one-third shareholder in the late 1970s.

Barry has been heavily involved with seismic acquisition throughout a career spanning over 40 years. During his time at Velocity Data Barry grew their high resolution seismic acquisition business through the implementation of Mini-SOSIE on shallow coal prospects. In 1984 Barry headed up this business as owner and founding Managing Director of the new entity, Velseis Pty Ltd, which is now a major provider of integrated seismic services in Australia and overseas.

During his time at Velseis from 1984 to 1992, Barry directed the development of Mini-SOSIE acquisition. This involved modifications to existing acquisition systems to allow increasing the number of channels available for recording, and enabling real time PC display of shot records, and ultimately leading to field brute stacks. Barry's significant contribution to writing the software code together with his professional staff meant that Velseis was able to develop their own in-house seismic processing capability.

After leaving Velseis in 1992, Barry started Geocon Pty Ltd, a seismic acquisition company based in Thailand. He was able to continue development of new PC based seismic acquisition systems with real time processing to record Mini-SOSIE data and display field brute stacks in real time. Geocon has been active recording Mini-SOSIE data in Thailand as well as Laos, Philippines, Mongolia and Turkey.

Barry has an extensive history of commitment to the ASEG, having been an active Member since incorporation in 1971. He



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served on the Federal Executive committee in Sydney in the late 1970's.

After moving to Queensland in 1980, Barry was Branch President in 1984/85 and he remained a Branch Committee member until his departure overseas. During this time he was Chairman of the 1983 Brisbane Conference.

He was a member of the Honours & Awards Committee from its inception in the 1980's to 2013, and is a member of the ASEG History Committee.

Of particular note is Barry's active participation in every ASEG conference since the inaugural conference in 1979. Attendance at the conference has always been an important part of Barry's commitment to the ASEG, even after he re-located to Thailand. Barry also contributed much time and enterprise to many of the conferences as the white suited Master of Ceremonies at the conference dinners.

For his distinguished contribution to and achievements in the business and practice of exploration geophysics, and for his significant contributions to ASEG over 40 years, Barry is a worthy recipient of Honorary Membership of ASEG.

### *Honorary Membership of the ASEG: Kim Frankcombe*

ASEG Honorary Membership has been awarded to Kim Frankcombe for his significant contribution to exploration geophysics and distinguished contributions to the ASEG over many years.

Kim is a prominent figure in the minerals exploration industry in Australia. After graduating from the University of Tasmania with honours in 1978, his past positions included Field Geologist in Stockdale Prospecting Ltd, Geophysicist with Mobil Energy Minerals Australia, Manager of Ground Geophysics and Airborne Electromagnetic Divisions with World Geoscience / Aerodata, Senior Geophysicist with Normandy Group, and Senior Consulting Geophysicist with Southern Geoscience Consultants. He is currently director of ExploreGeo, the consulting firm he established in 2011.

Kim has been a member of ASEG since 1978 and has always been actively engaged in ASEG activities wherever he was based. He is one of the very few Members who has been President of two state branches: South Australia in 1988 and Western Australia in 1992. He became an active member of the WA committee on moving to the West in 1989.

He was a Convenor of the joint ASEG and Australian Geomechanics Society seminar on Engineering Geophysics in 1988, and Co-Chair of two ASEG Conferences – in 1994 and again in 2000. He was also actively involved on committees for the ASEG conferences in 1988, 2007 and 2015. With his experience in organising conferences, Kim has been an advisor and at times Chairman of ASEG's Conference Advisory Committee for 20 years, freely giving advice and support to all the conference organising committees through these years.

He is a member of the Technical Standards Committee and contributed significantly to the ASEG's recently released 'ASEG-ESF: Format for exchange of Electrical Survey Data'.

Kim joined the ASEG Federal Executive in 2011 and served as President 2012–13. He has represented ASEG on the Australian Geoscience Council since 2011. In 2013, Kim led the subcommittee to select the new secretariat. With his

organisational skill and leadership, the selection process was completed smoothly.

In addition to his very extensive and ongoing service to the ASEG, Kim often gives technical presentations at many of the ASEG/AIG seminars in Perth. He also was co-editor of the UWA book 'The Geophysical Signatures of Western Australian Ore Deposits' and co-authored four articles in that volume. He has a strong presence in geophysical forums such as SEGMIN. He speaks without fear or favour on many subjects, some controversial. He is very generous with his time and knowledge, in particular mentoring young graduates.

For his achievements in the profession and his significant contribution to the ASEG over many years, Kim is a most worthy recipient of the award of Honorary Membership of the ASEG.



*Kim Frankcombe receiving his ASEG Honorary Membership from ASEG President Greg Street.*

### *Honorary Membership of the ASEG: Dr Barry Drummond*

ASEG Honorary Membership has been awarded to Dr Barry Drummond in recognition of his distinguished career and outstanding contribution and leadership in geoscience spanning 40 years and nearly every aspect of geophysics, and for his on-going contributions to the ASEG.

Barry's work in relation to the application of seismology to hard rock terranes is widely recognised throughout Australia and overseas, as is his role in the design and construction of the earthquake monitoring element of the Australian Tsunami Warning Centre (ATWS), which was established jointly by Geoscience Australia, the Bureau of Meteorology and Emergency Management Australia following the devastating Indian Ocean tsunami of December 2004. Barry was appointed head of the Earth Monitoring Group of projects in Geoscience Australia. Other projects in the Earth Monitoring Group during Barry's leadership included monitoring the Earth's magnetic field, screening for nuclear explosions, and volcano monitoring in Papua New Guinea and Indonesia. The national geodesy programme was also part of the group.

Before moving to the Earth Monitoring Group in 2004, Barry led a number of programmes that used seismic reflection and refraction techniques and potential field data to image many aspects of Australian geology. He was instrumental in the

establishment of ANSIR – The Australian National Seismic Imaging Resource Research Facility and was the foundation Director of the facility from 1997 to 2002. More recently Barry has worked in the area of Coal Seam Gas and submitted a background paper on Seismicity and induced earthquakes to the Independent Review of Coal Seam Gas Activities in New South Wales.

His leadership role in Geoscience Australia also included oversight of many other aspects of GA's programmes including the Australia-wide data acquisition programme that ultimately delivered the first complete gravity, airborne magnetic and radiometric coverage of the continent.

Barry's foresight drove many national scale projects forward by uniting the earth science disciplines and strategically aligning priorities with the national interest. His extensive publication list is testament to the breadth of the scientific work in which he was involved. Barry spoke at many conferences, often as a Key Note, and mentored many young geophysicists.

Barry has been a long time pro-active Member of the ASEG and GSA, and he was a Member of PESA and SEG until his retirement from Geoscience Australia in 2011. He was a member of the editorial board of the Australian Journal of Earth Sciences. He has been an active local ASEG branch member over many years. In recent years, he has served on the ASEG Federal Executive in the most important role of Honorary Secretary from 2012 to the present.

Barry is highly respected in the geoscience community. His work has promoted the science of geophysics throughout Australia and worldwide, and developed closer understanding and co-operation between geophysicists and other earth scientists. The ASEG is pleased to acknowledge Barry's significant contributions to the profession and the Society with this award of Honorary Membership of the ASEG.



Barry Drummond receiving his ASEG Honorary Membership from ASEG President Greg Street.

#### *ASEG Service Certificate: Anne Tomlinson*

An ASEG Service Certificate for distinguished contributions by a Member to the ASEG is awarded to Anne Tomlinson, through her involvement in and contribution to the WA Branch committee, Federal Committee, ASEG Conferences, and other ASEG activities over many years.

Anne studied at the University of Auckland graduating with a BSc in Geophysics in 2002 and MSc in Geology in 2004. She became an Active Member of the ASEG in 2003, and has

actively participated in the WA Branch activities since moving to Perth in 2005. She became a member of the WA State branch committee in 2009 and served as President over several years. During this term, she was involved in the organisation of special meetings and events, including WA's Junior Geophysicists Forum. Student nights in Western Australia have grown strong with Anne's leadership. She implemented a joint society committee comprising ASEG, PESA, AIG and ESWA representatives to organise the major annual Careers in Geoscience event. She has also organised numerous ASEG talks for state meetings and annual general meetings held in Perth, and was an organiser of ASEG's Airborne Electromagnetic Workshop in 2012.

Anne has made significant contributions to the management of the ASEG, and her efforts have resulted in transformations to the WA branch, as well as other important contributions including management of the WA branch events on the ASEG website, introducing an online event registration system, and establishing regular e-newsletters. In 2014, she led the WA committee to terminate the Branch's management contract with the existing secretariat, resulting in substantial cost savings to the state branch.

Anne always worked extremely hard to achieve goals and has given a huge amount of her time to ASEG. Anne has also dedicated a significant amount of personal time to the AIG organisation, particularly in her role as Federal Councillor for Membership, a position which she has held since 2012.



Anne Tomlinson receiving her ASEG Service Certificate from ASEG President Greg Street.

#### *Lindsay Ingall Memorial Award: Michael Dentith and Stephen Mudge*

The Lindsay Ingall Memorial Award is intended for an Australian resident or former resident for the promotion of geophysics within the non-geophysical community, including geologists, geochemists, engineers, managers, politicians, the media or the general public. The award honours the memory of an ASEG founder, past President and Honorary Member, the late Lindsay Ingall for his capacity to cross geoscience boundaries, his ability to relate technically and effectively with other professionals, regardless of their own understanding of the principles of geophysics, and for his enduring commitment to assist geoscientists across Australia. It is awarded generally to



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an individual who has actively promoted geophysics to the wider community.

This year the award is, for the first time, made jointly to two prominent Members of the ASEG, Michael Dentith and Stephen Mudge, for their combined effort in promoting geophysics to the wider community through their authorship of the new textbook 'Geophysics for the Mineral Exploration Geoscientist' published by Cambridge University Press in 2014.

Mike Dentith is Professor of Geophysics at The University of Western Australia. He has been an active researcher and teacher of university level applied geophysics for more than 25 years, and he also consults to the minerals and petroleum industries. Mike's research interests include geophysical signatures of mineral deposits, petrophysics and terrain scale analysis of geophysical data for exploration targeting. Mike has also been a great contributor to the ASEG over many years, having been part of the technical papers committee for ASEG conferences in 1994, 2000, and again this year, and editor of the conference edition of *Exploration Geophysics* in 2000 and the ASEG Special Publications: 'Geophysical Signatures of WA Mineral Deposits', and 'Geophysical Signatures of SA Mineral Deposits'. He has also been a Board Member of the ASEG Research Foundation since its inauguration to the present.

Steve Mudge has worked as an exploration geophysicist in Australia for more than 35 years, and currently works as a consultant in his own company Vector Research. He has worked in many parts of the world and has participated in a number of new mineral discoveries. Steve has a keen interest in data processing techniques for mineral discovery and has produced several publications reporting new developments. Through his series of 'Excitations' articles on geophysical techniques that were published in ASEG's *Preview* magazine over several years, Steve was able to present an understanding of the techniques in a way that both geophysicists and geologists could readily comprehend. Steve has also been a Board Member of the ASEG Research Foundation since its inauguration to the present.

Whilst the new textbook explains how geophysics may be used in the search for mineral deposits, the importance of this contribution lies in the careful linking of geology and geophysics. Mike and Steve advise that this book was specifically written for geologists who would like to know more about using geophysics and also for geophysicists who would like to know more about the interpretation of geophysical data. It presents modern practice in geophysics in a way that will undoubtedly assist exploration geologists to better communicate their aims and goals to geophysicists. At the same time, the book helps geophysicists to better understand the geological and commercial implications of their results. But above all, it is a book directed at the wider geological community to facilitate mutual understanding of both the benefits and pitfalls of geophysical surveying.

For Mike and Steve this book has been a labour of love. Their dedication to the project, extending over more than a decade, demonstrates a strong commitment and passion by both authors to educate the wider geoscientific community about the great benefits of applying geophysics in mineral exploration.

Like the career of Lindsay Ingall, this book succeeds comfortably in crossing traditional geoscience boundaries. The writers have shown that they also share Lindsay Ingall's capacity to relate technically and effectively with other

professionals. Mike Dentith and Steve Mudge are worthy recipients of the ASEG Lindsay Ingall Memorial award.



Steve Mudge and Mike Dentith receiving Lindsay Ingall Memorial Award from ASEG President Greg Street.

### *Grahame Sands Memorial Award: Dr Phil Schmidt (MagneticEarth Pty Ltd)*

This award is based on an endowment made by Members of the ASEG and the geoscience profession in memory of the late Grahame Sands, who was tragically killed at the prime of his life in an aircraft crash in 1986, whilst developing and testing new equipment for geophysical survey aircraft. Because of Grahame's abilities to turn scientific theory into innovative application, the award is made for innovation in applied geophysics through a significant practical development of benefit to Australian exploration geophysics in the field of instrumentation, data acquisition, interpretation or theory.

The Grahame Sands Award for 2015 is made to Phil Schmidt from MagneticEarth Pty Ltd for his unique and practical development of the Qmeter for in-field measurement of the magnetic remanence properties of field samples. The Qmeter provides geophysicists with a practical and affordable method for investigating the magnetic remanence and magnetic susceptibility properties of field samples collected from outcrop, drill core, mine open cuts and quarries.

Phil is an adjunct Professor at Macquarie University, NSW, and an Honorary Fellow at CSIRO. Since 2005, he has been a member of the Federal Executive of the ASEG. As Publications Chairman during that time he has been instrumental in raising the profile of ASEG's publications *Exploration Geophysics* and *Preview*.

The development of the Qmeter is the result of years of investigation of the magnetic properties of rocks, their relationship to mineralisation systems and theoretical methods for the analysis of field data. Phil has made a significant contribution to our knowledge of the magnetic properties of many mineralisation systems through his prior research at CSIRO and collaboration with other global research organisations, and through more than 120 professional publications that he has authored or co-authored ranging from rock magnetism, instrumentation and magnetic survey interpretation to palaeomagnetism.

The Qmeter was developed from the concept first published in 1973 by Sheldon Breiner in a booklet entitled 'Applications

manual for portable magnetometers' as a practical field guide for total field magnetometers. Phil has adapted the hand held method suggested by Breiner and turned it into a practical portable system that uses a miniature flux gate magnetometer and associated electronics that is directly powered from the USB port on a laptop computer. The new theoretical development required for use with the flux gate magnetometer is published in the ASEG special publication on magnetic remanence and demagnetisation: Schmidt, P.W. and Lackie, M.A. 2014, Practical considerations: making measurements of susceptibility, remanence and Q in the field (*Exploration Geophysics* 45(4), 305–313).

The Qmeter is an elegant and simple machine which fills an important niche. Interpretation of aeromagnetic surveys have often made the simplifying assumption that anomalies are produced only by induced magnetic fields proportional to the magnetic susceptibility, a property that can be readily measured in the field with small simple instruments. However, the fact is that most rocks, and especially economically interesting rocks, hold a permanent or remanent magnetisation as well as their induced magnetisation. For the companies that do recognise the importance of remanence, current practice is to submit rocks to laboratories, with significant time and cost factors involved.

The Qmeter is an inexpensive instrument which permits rapid measurement of magnetic susceptibility and remanence in the field. The hope is that by making it possible for companies to produce their own magnetic remanence data in real time during exploration, they will perform more complete and realistic magnetic survey interpretations, leading to more efficient and successful discovery strategies.

Given the emergence of magnetic remanence as an important rock property for assisting in the exploration of many mineralisation systems, Phil's development of the Qmeter is a significant step forward by providing geophysicists with a practical tool for the direct field measurement of the magnetic remanence properties of rock samples. The ASEG is pleased to present the Grahame Sands Award to Phil Schmidt in recognition of this unique and practical contribution to our industry.



Phil Schmidt receiving the Grahame Sands Memorial Award from ASEG President Greg Street.

#### *Shanti Rajagopalan Memorial Award: Andrew Pethick*

The Shanti Rajagopalan Memorial Award, inaugurated in 2013, is presented for the best paper published by a Student Member of the ASEG in *Exploration Geophysics* in the period prior to each ASEG Conference.

The award is named in memory of the late Dr Shanti Rajagopalan, who passed away in 2010. Shanti was one of the best known and respected Members of the ASEG, and was well known within the geophysical profession for her outstanding contributions and service to the profession and the ASEG.

Shanti was a major contributor to the ASEG in many ways. She was Victorian branch President, and was actively involved in the organisation of ASEG conferences in Hobart and Melbourne. She was also Managing Editor of *Exploration Geophysics* in 2000 and 2001.

But it is most noteworthy in the context of this award that, in 1987 as a Student Member, Shanti was awarded the inaugural Laric Hawkins Award for the most innovative use of a geophysical technique from a paper presented at the ASEG Conference. It is therefore very appropriate that an award to encourage technical excellence by our Student Members is named in honour of Shanti.

There were two papers selected by the adjudication panel that were in close contention for the award. The papers were of very similar quality and both addressed topics of importance and of current interest. The selection committee had difficulty separating the papers but one paper was judged to be slightly better constructed and more informative.

The runner up for the award is Konstantin Tertyshnikov from Curtin University for his paper co-authored with A. Bóna and R. Pevzner entitled: 'Prestack time imaging algorithm with simultaneous velocity estimation in hard rock environments'.

The winner and recipient of the Shanti Rajagopalan Memorial Award for 2015 is Andrew Pethick of Curtin University, for his paper co-authored with Brett Harris entitled: 'Bathymetry, electromagnetic streamlines and the marine controlled source electromagnetic method'.



Andrew Pethick receiving the Shanti Rajagopalan Memorial Award from ASEG President Greg Street.



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### ASEG-PESA 2015: Conference and Exhibition Awards

#### *Best Paper: Minerals Geophysics*

Matthew Hope, 'Geophysical Response of the Atlántida Cu-Au Porphyry Deposit, Chile – An Undercover Discovery in an Old District'

#### *Best Poster: Minerals Geophysics*

Phillip Schmidt, 'The Qmeter – a portable tool for remanence and susceptibility'

#### *Best Student Paper: Minerals Geophysics*

Seogi Kang, 'Restoration of distributed IP information in airborne-time domain electromagnetic data'

#### *Best Student Poster: Minerals Geophysics*

Tom Horrocks, 'Evaluation of Automated Lithology Classification Architectures using Highly-Sampled Wireline Logs for Coal Exploration'

#### *Best Paper: Energy Resources Geophysics*

Olga Zdraveva, 'Anisotropic depth imaging in presence of stress: transversely isotropic or orthorhombic?'

#### *Best Poster: Energy Resources Geophysics*

Zhijun Du, 'North Sea case study: Heavy oil reservoir characterization from integrated analysis of Towed Streamer EM and dual-sensor seismic data'

#### *Best Student Paper: Energy Resources Geophysics*

Alexander Robson, '3D seismic analysis of normal fault growth and interaction within a gravitational detachment delta system in the Ceduna Sub-Basin, Great Australian Bight'

#### *Best Student Poster: Energy Resources Geophysics*

Muhammad Mudasar Saqab, 'Neogene oblique extensional system in the north-western Bonaparte Basin, Australia'

#### *Best Paper: Engineering-Environmental Geophysics*

Ken Lawrie, 'Optimizing Airborne Electromagnetic (AEM) Inversions for Hydrogeological Investigations using a Transdisciplinary Approach'

#### *Best Poster: Engineering-Environmental Geophysics*

Markku Montonen, 'SPM Effect in Glacial Till'

#### *Best Student Paper: Engineering-Environmental Geophysics*

Michael McMillan, 'Parametric 3D inversion of airborne time domain electromagnetics'

#### *Best Student Poster: Engineering-Environmental Geophysics*

Adrian Barford, 'Geostatistical analysis of the relationship between airborne electromagnetic data and borehole lithological data'

#### *Best Small Exhibitor*

GPX Surveys

#### *Best Large Exhibitor*

DownUnderGeoSolutions

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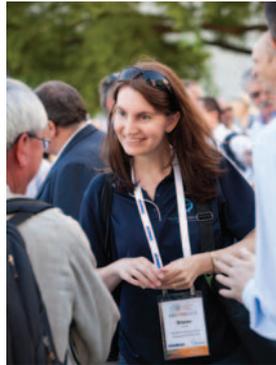


**Geophysics and  
Geology together  
for Discovery**

# ASEG-PESA

## 2015

24th International Geophysical  
Conference and Exhibition  
15-18 February 2015  
Perth, Western Australia



## ASEG-PESA 2016



Congratulations to the ASEG-PESA 2015 conference organising committee for organising a record-breaking conference! A great effort!

The next International Geophysical Conference and Exhibition for the ASEG will be held in Adelaide, South Australia from 21 to the 24 August, 2016.

This will be the 25th Conference and Exhibition – a landmark occasion – and it is fitting that the conference will be held in Adelaide where the first conference was held in 1979. Our conference theme is ‘Interpreting the Past, Discovering the Future’: a nod to our past and a view to our future. It also encapsulates the nature of our industry: we frequently revisit past data, and new discoveries are made from new interpretations.

The call for papers has not yet been announced, but please do start planning your technical papers and posters. Our conference organising committee (see table) has been formed and has been working hard to ensure that the 25th conference is a success. Information and paper submission will be available via the conference website ([conference.aseg.org.au](http://conference.aseg.org.au)). Delegates are encouraged to join the conversations on social media: Facebook, LinkedIn and Twitter. Look out for #ASEGPESA2016!

Adelaide has been voted one of the top ten cities in the world to visit by Lonely Planet. It boasts a recently renovated Exhibition Centre, the largest Fringe festival in the Southern Hemisphere, the National Wine Centre, and of course Adelaide Oval. The conference dinner is already booked in at the Adelaide Oval so don't miss out! Adelaide is a stone's throw from major wine regions: the Barossa, McLaren Vale and the Clare Valley to

name a few. It's from these regions that the wine for the annual ASEG wine offer is selected.

Please join us in Adelaide in August 2016 and in the meantime please stay tuned to the website for all the latest news. Sponsorship and Exhibition opportunities are ready to be discussed now with Claudia Fintina and Rod Lovibond respectively.

*Philip Heath*  
Co-chair Minerals  
[www.conference.aseg.org.au](http://www.conference.aseg.org.au)

#### ASEG-PESA 2016 conference organising committee

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