

# Engineering Connections

Issue 07 - June 2013

# President's Column and Summary of Annual Report 2012/2013

Warm Greetings to all SPEA Chapters

Since its formal launch on 4 March 2010 in Suva, Fiji, the South Pacific Engineers Association (SPEA) has made slow and steady progress. Although in its early phase of development, various objectives were achieved over the last year during my first term as the President. This annual report presents some of these achievements over the last 12 months together with some of the current and future challenges.

Traditionally, nearly all over the world most professions have taken personal interest and formed their membership based societies to advance their professions and economies. Unfortunately most are self funded and without any government or other support. For smaller economies, which are still developing like the Pacific Island countries, it is quite a challenge for a profession like engineering to effectively function and contribute without some external support. Yet, it is probably the most needed of all the professions and the cornerstone for a successful economy. The engineering profession needs to better understand the importance of its role in an economy by proactively identifying key partners such as the National Planning Unit, the donors, various platform organisers and the policy makers. The profession needs to make inroads so that it can hold key positions from where it can provide guidance and direction to the decision makers.

#### National Chapters

The Fiji Institution of Engineers (FIE), Institution of Engineers Papua New Guinea (IPENG), Institution of Professional Engineers Samoa (IPES), Institution of Professional Engineers Tonga (IPET), Institution of Professional Engineers Cook Islands (IPECI), Vanuatu and Solomon Islands

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SPEA was formed at the regional level by the Pacific Island country engineers with the financial and administrative support from the Institution of Professional Engineers New Zealand (IPENZ), Wellington, New Zealand. Engineers Australia (EA), Canberra, Australia recognise SPEA and provide on-going support. The Policy Papers published on SPEA website strongly suggest, engineer's key areas of interest are disasters and climate change, sustainable infrastructure and affordable housing, quality technical standards, engineering education, role of engineering and professional development/human excellence.

# **Professional Development**

Post University learning on a continuing basis is important in all professions. In the profession of engineering, the increasingly demanding market challenges require engineers to constantly reassess their competencies. SPEA is committed to identify and coordinate relevant and appropriate professional engineering development programmes for the region.

In line with one of the objectives of SPEA on continuing professional engineering development, a successful conference on the "Outcomes, Lessons & Implementations from Canterbury Earthquakes" of September 2010 and February 2011 was held in Suva on 04 May 2012. Six invited expert speakers from New Zealand representing the Ministry of Civil Defence, insurance industry, academia and consulting engineering spoke at a one day long conference. Participants from the engineering and architecture professions, policy making, insurance, banking & finance, academia, university undergraduates, disaster management, building & construction, legal profession & donor agencies attended the conference. The conference was fully funded by the Australian Agency for International Development (AusAID) of the Commonwealth of Australia under an annual Agreement with the Fiji Institution of Engineers (FIE).

#### Relationship with the International Donors

SPEA is recognized by the international donors based locally in Fiji. Apart from various other arrangements and partnerships, SPEA wishes to work in close collaboration with donors and local implementing authorities.

Preliminary discussions with some donor agencies to partner and support "Sustainable Development through Capacity Building by Strengthening Engineering Capacity for Disaster Preparedness and Poverty Alleviation in Pacific Island Forum States" have been in progress. A planned formal meeting between donors and SPEA is scheduled for 20 May 2013 in Suva.

# Regional Government's Endorsement

Not only the profession of engineering but governments as well recognise the shortage of technical expertise. The local SPEA Chapters have been in discussion with their respective governments and in collaboration they have made written submissions to the donors for support to address both the long term shortage and lack of training of technical skills for long term sustainability of the island economies. The message will be presented at a special session to the donors during a face to face meeting in Suva on 20 May 2013.

# Institution Strengthening

The SPEA Council encourages and provides support for the formation and establishment of local engineering Chapters wherever needed.

The engineering society in the Cook Islands is applauded for its efforts in the last couple of years to form and launch in Rarotonga last month the Institution of Professional Engineers Cook Islands (IPECI). Mr Tenga Mana, the inaugural President of IPECI has been instrumental over the years in the formation of the IPECI. SPEA is proud of the achievement of the engineers in CI.

Engineers in Tonga have made substantial progress in the last few years to register a professional society in Tonga. This has now been recognised as a formal chapter of SPEA. SPEA is looking forward to the Institution of Professional Engineers Tonga (IPET) undertaking activities to assist engineering in Tonga.

After nearly three years of drafting work including several consultations within the membership and outside, the Fiji Institution of Engineers (FIE) submitted to the line Minister a draft of the proposed Chartered Professional Engineers Act Fiji. The document has been submitted to the Office of the Solicitor General for vetting. It is expected the government regulation of the profession of engineering will become legislated this year.

Currently the Solomon Islands do not have formal membership to the SPEA. Some three months ago the Institution of Engineers Papua New Guinea (IEPNG) on behalf of the SPEA visited the Solomon Islands and met up with the Solomon Islands Built Environment Professional Association (SIBEPA) and the local engineers. The purpose of the meeting was to assist the engineers in the Solomon Islands set up a membership society, which would then become a Chapter of the SPEA. Currently society engineers in the Solomon Islands belong to SIBEPA. SPEA is looking forward to Solomon Islands membership to SPEA.

A meeting to discuss issues of common and mutual interest and values exchange between SPEA, EA, IPENZ and IEPNG was held in Canberra in August 2012. Through appropriate and good engineering certain objectives of SPEA would be achieved with the help of relevant stakeholders including the industries in general, the donors and the policy makers.

# Presentation to the UNISDR & UNDP, International Recovery Workshop, Fiji

At the invitation of the regional offices of the United Nations International Strategy for Disaster Reduction (UNISDR) and United Nations Development Programme, the President was invited to facilitate a Shelter Session of the Disaster Recovery Workshop under the International Recovery Platform for Fiji and the Pacific in September 2012. Local Chapters and engineering bodies are encouraged to show interest and participate in similar events.

# Participation in the Pacific Humanitarian Team (PHT) Regional Workshop, Nadi, Fiji

The above event was organized by the UNOCHA, the United Nations Office for the Coordination of Humanitarian Affairs. The President participated during one of the four days. The PHT is a collaborative mechanism within the major humanitarian partners for the humanitarian preparedness and response in the region. It has proven to be a valuable opportunity to promote international and regional best practices in humanitarian assistance across the Pacific Island region.

# Representation at the ANZ Pacific Infrastructure Meeting, Auckland, New Zealand

This Forum brought together decision makers from across the Pacific to discuss infrastructure in the region. Four topics of discussion were: a) Mining, with focus on LNG in PNG. b) Mineral rush in Fiji. c) Renewable energy featuring specialized geothermal opportunities. d) Donor funding. The President of SPEA participated.

#### Participation in the COPOLCO Workshop, Nadi, Fiji

The Fiji governmenthosts the Committee on the Consumer Policy of the International Organization for Standardization (COPOLCO). COPOLCO is a forum for the exchange of information and experience on Standards and conformity assessment issues of interest to consumers. It identifies standardisation areas of priority interest to consumers and works to promote and coordinate consumer representation in those areas. SPEA wishes to develop its relationship with this body.

#### Participation and Presentation to the WEF 2012, Ljubljana, Slovenia

SPEA was represented by the President at the "World Engineering Forum, WEF 2012' held in Ljubljana, Slovenia last September. Contributions were made in the Disaster, Education, Environment and Anti Corruption Standing Technical Committee meetings. The Forum took place over one week.

On behalf of the Fiji Institution of Engineers (FIE), a successful application for membership of the World Federation of Engineering Organization (WFEO) was made by the President. As of 21 September 2012, the FIE is a full Member of the WFEO.

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# **Engineering Profile and Private Dinner**

In December 2012, the President hosted a private dinner attended by some 40 invited guests including His Excellency, Ratu Epeli Nailatikau, the President of the Republic of the Fiji, the Chief Justice of Fiji, dignitaries from the Australian High Commission and AusAID, New Zealand High Commission and NZAID, United Nations, European Union, Transparency International, former Politicians, academics, banking and financial institutions, insurers and executives from the private sector.

# **Engineering Education**

SPEA and IPENZ visited the University of the South Pacific (USP), Fiji National University (FNU) and the Fiji Higher Education Commission in preparation for the planning of the eventual accreditation of the BE degree programmes.

With the assistance from IPENZ, SPEA facilitated the Deans of Engineering from USP and FNU to attend the New Zealand Council of Engineering Dean's meeting in Auckland in August 2012.

The President conducted a major industry consultation between the USP and the industry for the Bachelor of Engineering programmes. SPEA is active within the higher education institutions (HEI) to strengthen the HEI and industry partnership.

#### **Teleconferences**

Due to the geographical spread of the Chapter countries, and hence the difficulty in meeting face to face regularly, the SPEA Council conducts business through teleconferences, as and when required. One face to face meeting takes place annually coinciding the AGM. In the last year three teleconferences were held to discuss the business of the SPEA.

# SPEA/Engineering Profile Building Expenditure

Profile building of SPEA and the engineering profession occurs through various local, regional and international presentations, participations and meetings like the UNISDR & UNDP International Recovery Workshop.

# SPEA/Engineering Profile Building at Chapter Level

Engagement and interaction with the donors, the policy makers, banks, insurers, teaching institutions, etc is encouraged. Engaging in public speaking at forums of not only engineering interest but national interest is vital and therefore highly recommended.

# **Sponsorship**

During the year, SPEA is proud to have received sponsorship from Fletcher Construction and from BSP Life, Fiji. We look forward to a long term relationship with BSP Life. Sponsorship is welcomed as it helps defray costs associated with the face to face meetings.

#### Challenges

There are short and long term challenges SPEA Council and the Chapters will continue to experience.

- In order to advance the profession of engineering, engineers at all levels need to be encouraged to make sacrifices and to "give back".
- Chapters need to invest in building strong local profile, in particular with their government and key organisations.
- The role of engineering in the development of the local economy needs to be explained to the governments and the key organizations.
- Active involvement and support to industry related partners is crucial. It is
  important to identify areas of engineering needs such as disaster, education,
  infrastructure, etc and as experts engineers should play a leading role in advising
  appropriate bodies such as the government, donors, NGO's, financial institutions,
  insurance, etc.
- Investment in human excellence in the engineering profession is vital.
- SPEA needs to strengthen its relationship outside the engineering profession, e.g. architecture, building, planning, etc.

#### Appreciation

Dr Andrew Cleland of IPENZ has been a mentor to guide SPEA from its inception. The Council of the SPEA wishes to acknowledge the immense assistance Andrew and his assistant, Karen Cooper have provided through IPENZ.

The Chapters have made substantial progress for which I sincerely thank the Chapter Representatives.

At its own expense the IEPNG visited the Solomon Islands to initiate discussion with the SI engineers with a view of setting up a local Chapter. I wish to sincerely thank IEPNG, in particular the Chief Executive Mr Benedict Mick and the PNG SPEA Chapter President Mr Eric Sikam for their generosity.

Pratarp Singh BE, FFIE, AIAMA
President
South Pacific Engineers Association

# Launch of the Cook Islands Chapter

The launch of the Institution of Professional Engineers Cook Islands (IPECI) on 9 April 2013 was attended by 20 Cook Islands engineers and performed by the Minister of Infrastructure and Planning.

The launch was used by IPECI to highlight the role of engineering in the Cook Islands with national leaders, and this was assisted by the presence of Dr Andrew Cleland, Chief Executive of IPENZ who visited the country to attend the launch. The IPECI President Tenga Mana and Deputy President Atatoa Herman arranged a set of meetings including with:

Hon Henry Puna – Prime Minister

Teariki Heather - Minister for Infrastructure and Planning

Mac Mokoroa – head of that Ministry

The focus was to emphasise the importance of engineering to ensure government budgets are well spent and that there is local content and capacity building in all engineering projects. As an example, there were discussions with the team in the Prime Minister's office responsible for the solar energy project which intends to make photo-voltaic energy capture a significant part of the Cook Islands electricity supply over the next few years.

Dr Cleland spoke to a meeting of Cook Island engineers about what is happening in engineering around the world, and how that might impact into the South Pacific region. IPECI representatives and Dr Cleland also spoke to about 100 senior secondary students from all high schools about engineering careers – the government is keen to develop a pool of young people able to contribute in the future.

#### SPEA MEETINGS IN SUVA

The representatives from the various chapters assembled in Suva for the Annual General Meeting that was held on Monday 20 May 2013. Immediately following that meeting, there was a face-to-face Council meeting followed by a meeting with various possible donors.

Due to flight delays resulting in missed connections that upset the plans some representatives were left with little alternative but to take a taxi from Nadi Airport, a three hour drive to Suva. One representative arrived at midnight. The photograph below shows those representatives who had arrived in time for an informal dinner on Sunday evening. That gave a good opportunity for representatives to meet up again and for others to meet for the first time.



Left row, from front: Sione Taumoepeau (Tonga) Eric Sikam (PNG) Benedict Mick (PNG) Johnson Binaru (Vanuatu)

Right row, from front: Merv Lindsay (Engineers Australia), Andrew Cleland (IPENZ), Pratarp Singh (Fiji).

Behind the camera, Robin Palmer (Fiji)

# Briefly from the 2013 AGM

From the audited accounts, SPEA had moved from a deficit of NZD\$5,332 to a positive balance of \$9,246. Subscriptions will remain the same as for 2012

The Institution of Professional Engineers Cook Islands become a formal Chapter of SPEA under Rule 2.4.

IEPNG had offered and pledged their support to assist the Solomon Islands. Already they had taken the opportunity to speak to engineers in the Solomon Islands.

Johnson Binaru said that he would very much welcome similar help from PNG for Vanuatu.

Pratarp thanked IEPNG for their excellent work in helping the Solomon Islands. He hoped that he would also be able to add his support by visiting both the Solomon Islands and Vanuatu

From SPEA Rules it appeared that the Engineering Society within Solomon Islands Built Environment Professional Association (SIBEPA) will be the Chapter of SPEA, providing that the board of that Society accepts the commitment. The Chapter Representative will be the Chairman of the Engineering Society.

Each chapters submitted a brief report and below are extracts from those reports:

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# Tonga

 IPET had their first formal Annual General Meeting and can now move forward to have a Council with Sione Taumoepeau as the President.

#### Samoa

- IPES had just had their Annual General Meeting. That meeting was delayed due to cyclone Evan.
- Repairs were ongoing from the effects of cyclone Evan, especially from flood damage. The Institution was able to help.
- The Government was reviewing its procurement rules.
- The Rules and Regulations for registration had been delayed, but were now going ahead.
- There was continuation in promoting the engineering profession through education with emphasis on maths and science.
- The IPES membership list was published twice a year with good response from all financial members at all classes. The listing was also published on the website.

#### **PNG**

- The report from the very active PNG chapter was given by Benedict Mick.
- The Government was pumping in money to fund upgrading of infrastructure.
- Financially IEPNG are in a sound position and happy with progress
- There had been an official launch of the IEPNG Corporate Plan up to the year 2020. The launch had good media coverage.
- IEPNG were looking at requiring all expatriates to pay membership fees in line with locals for whom it is mandatory for them to pay their fees in order to work.
- International meetings had been attended in the SPEA region, Seoul and with Engineers Australia.
- There had been an introduction of audits to ensure that Government money was spent wisely and also to see that the work was carried out to the required standard. In connection with this, IEPNG were looking at a pool of engineers who could carry out the necessary inspections and divided so that suitable people would be allocated to each job.

- IEPNG had almost secured land for a 10 storey Engineers House with the plan to let out most of the floors.
- Next year would see the competency assessments modified but modelled from the NZ model.

#### Vanuatu

- The report for Vanuatu was presented by Johnson Binaru. There was a request for other member countries to assist them with their legislation that needs to be put in place to support engineering. Vanuatu engineers use the Australian Standards but the country has its own Building Code.
- Vanuatu engineers were very happy to be members of SPEA

#### Fiji

- It was sad to report that Fiji and the FIE had lost two of its stalwart members. Bill
  Yee was the first President of the FIE and Dick Elder who was possibly known to
  some of the SPEA representatives.
- A very successful one day symposium was held on the, "Outcomes and Lessons from the 2011Canterbury Earthquake. That symposium was held as a part of the agreement that the FIE has with the Commonwealth of Australia.
- In regard to the revision of the National Building Code, the FIE were still contributing, but no longer leading. That lead role had been passed to the Ministry of Health. The World Health Organization had also shown an interest in funding the review of the Code.
- The FIE had been admitted as a fully paid up member of the World Federation of Engineering Organization (WFEO).
- The registration of engineers following the NZ format was recommended in a submission to the Minister. Government had made some changes to proposed legislation and will consult the FIE before submitting to the Parliament.



The Chapter Representatives at the SPEA Meetings with Andrew Cleland and Merv Lindsay

# **AID Funding**

The big subject of the day was aid funding which was very fully discussed with all representatives taking the matter most seriously with a concerted effort from everyone.

It was suggested that it would be economic to have a Regional Building Code funded by one of the possible donors. The code would take in all updates including lessons learnt from the Christchurch disaster. That would save time and expense for each chapter. It was recognised that there would be clauses applicable only to certain countries.

Education was considered a strong point using a buddy system to support academic staff with an Australian or New Zealand counterpart. Universities might gain funding through a donor providing funding to SPEA for distribution. It was thought that this would take 3 to 4 years and cost in the region of \$1 million a year. It was considered that education would be the strong point to raise with the donors.





A light hearted moment at the meeting with donors – Benedict Mick and JJ Varma First Secretary, the High Commissioner of India

From left to right John Morley (AusAID), Tukatara Tangi (AusAID), Scott Hook (Forum Secretariat) and in the background Pratarp Singh being interviewed by Fiji TV.



The Minister for Works, Transport & Public Utilities speaking at the dinner.



Pratarp Singh speaking at the closing of dinner.

It was most encouraging to note the help that was being given to the newer and smaller Chapters and the good participation by all the representatives to see SPEA move forward.

Special thanks to the President Pratarp Singh and his firm's staff for making all the necessary arrangements for the meeting and for steering the meeting in such a good manner. Pratarp personally funds many of his activities as president of SPEA and this is gratefully acknowledged by the chapters.