



THE INSTITUTION OF ENGINEERS, SRI LANKA
NSW AUSTRALIA CHAPTER

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ANNUAL REPORT – 2017/2018

IESL NSW Chapter Annual General Meeting was held on 22 October 2017

1 IESL NSW Chapter Executive Committee 2017/2018

The ninth Executive Committee of IESL NSW Chapter was elected at the Annual General Meeting (AGM) held on 22 October 2017. Since then the committee held nine committee meetings. The committee currently consists of following committee members:

- Eng. Sarath Wijayapala (Chair)
- Eng. Rohitha Silva (Vice Chair)
- Eng. Dayantha Jayarathna (Past Chair)
- Eng. (Dr.) Buddhi Wijerathna (Secretary)
- Eng. Mahendram Manoharan (Treasurer)
- Eng. Udaya Peeligama (Editor)
- Eng. Subhani Medawala
- Eng. Sisira Marakkala
- Eng. Indunil Kariyakaranage
- Eng. Buddhi Ranasinghe
- Eng. Gayan Abeywardena

In addition to the official committee members, Eng. Pamal Dias was appointed as the Web Administrator to maintain the website. He was appointed to serve on specific duties in relation to controlling access to the website editing, managing email addresses, and special IT support activities. All committee meetings were well attended, although some members had difficulties attending meetings due to unavoidable circumstances.

2 Membership

Based on the information received from IESL membership database, there are 76 members residing in New South Wales in 2018. There has been a slight increase in active membership numbers during last year.

	2012	2013	2014	2015	2016	2017	2018
Fellow	8	8	8	8	8	9	9
Honorary Life Member	2	2	2	2	2	4	6
Members	91	75	75	86	91	41	48
Associate Member	33	26	25	31	33	10	13
Student	1	1	1	1	1	0	0
Total	135	112	111	122	135	64	76

Table 1 IESL NSW Membership Details

Membership details for this year were received on the Chapter on 18th September 2018 from IESL HQ after several hastening. Since the Chapter doesn't have the visibility of membership details, it wasn't possible to take follow up action to improve the membership registrations. It is important to receive membership details from the membership registrar of IESL in the month of February each year allowing required follow up actions.

2.1 Chapter Affiliation

According to directives received from IESL Head Office, members residing in NSW are required declare their affiliation to the Chapter via the IESL membership portal. Members have been informed via the newsletter and the website. At this stage the actual number of members those who have declared affiliation with NSW Chapter is not available to us.

2.2 Membership fees

According to the IESL constitution and the subsequent agreements with IESL, the Chapter was entitled to receive 1/3rd of the membership fees of all members residing in New South Wales and Australian Capital Territory from IESL.

From the early days of Chapter, the amount due was reconciled with the fees collected locally from the members and an account was maintained to reflect the balance. With the introduction of online payment system, NSW Chapter stopped collecting membership fees locally as members could pay directly by using the credit card. IESL NSW Chapter requested the amount due to be transferred to the account, preferably in February or March in each year so that the Chapter accounts can be updated.

After many discussions in 2017 and 2018 held by NSW Chapter Chairs with IESL Presidents in Colombo and the CEO of IESL, it was agreed to transfer the balance due to the IESL NSW Chapter account and the last three-year tranche (2015, 2016 and 2017) was received in mid 2018.

The final tranche covering the years 2012, 2013 and 2014 is still awaited to be released from IESL HQ.

From 2018, a fixed annual contribution will be paid to all Provincial and Overseas Chapters to meet their operational expenses as decided recently by the IESL Council.

2.3 New Membership applications

It should be noted that the level of cooperation between the IESL Membership Registrar and NSW Chapter can be improved to better support new membership applications. It is essential to have a coordinated approach to promote and encourage new members to join and current members to retain the membership.

3 Knowledge sharing lectures and industrial visits

During the year the Committee has facilitated the following four knowledge sharing lectures and an industrial visit.

3.1 *Lecture 1: Young Engineers Day held on 28 Feb 2018*



A sizeable audience was present consisting of members and industry professionals to listen to stimulating presentations made by young engineers on their experiences with some exciting projects, followed by a question and answer session. Four presentations in all were made at the sessions.

The first presentation was on **“Drainage Design and the North West Metro”** by **Eng. Pulith Vidanapathirana**. Pulith, a Civil Engineer from SMEC, with extensive experience on Operations, Trains and Systems (OTS) Contracts with the Sydney Metro Northwest and the WestConnex and Northconnex Projects, spoke on the drainage design aspects of the NorthWest Metro Project in his presentation. Pulith holds a Bachelor of Civil Engineering (Hons) degree from the University of New South Wales.

The next presentation titled **“Enabling the World’s Smallest CPAP Device”** was from **Eng. Varuni Fernando**, a Systems Engineer at ResMed Ltd on the next generation of devices for the treatment of Sleep Disordered Breathing (SDB). Varuni with a Bachelor of Engineering (Electrical) (Hons 1) from UNSW is currently pursuing a Masters in Systems Engineering from Johns Hopkins University and is the Chair of Women in Engineering, Engineers Australia, Sydney Division.

The third presentation on **“Use of elastic inclusions to improve rail track performances”** was from **Eng. Chamindi Jayasuriya**, a PhD Student at the University of Wollongong. She presented her research into the use of rubber-based underlay in rail tracks. Chamindi is a Civil Engineer who graduated from the University of Moratuwa Sri Lanka and has a Master’s degree in Highway Engineering.

The fourth presentation titled **“Re-igniting the Village Economy with Humanitarian Engineering”** was from a group of engineering undergraduates from the University of New South Wales who call themselves **“UNSW Impact Engineers”** who spoke on their achievements in constructing a water treatment plant and training community members in its maintenance and conducting of a mindfulness program in rural Galwaduwegama & Thodamaduwa, two villages in Sri Lanka affected by Chronic Kidney Disease. Their efforts were assisted by the UNSW Global Water Institute, National Water Supply & Drainage Board Sri Lanka, University of Peradeniya, Project Fountain and multiple other corporate partners

3.2 Lecture 2: The Use of the Underground Space for Sustainable Development by Eng. Alexandre RA Gomes held on 11 April 2018



Alex has been an Adjunct professor for Tunnelling at the University of Chile, having published more than 50 technical papers and articles. He holds the position of Chief Technical Principal Tunnels and Underground at SMEC in Sydney, also serving as Vice President of the International Tunnelling and Underground Space Association (ITA-AITES).

The presentation was well attended and attracted a lot of questions from the audience.

3.3 Lecture 3: Current and Future Trends of Robotics in Infrastructure by A/Prof Sarath Kodagoda held on 11 July 2018



Sarath Kodagoda has 20 years of experience in robotics. He is a co-chair of the ‘A Robotics Road Map for Australia’, which was launched in June 2018 at Parliamentary House Canberra. He is currently serving as Associate Professor, Coordinator of the Mechanical and Mechatronics engineering program and deputy director (Teaching and Research Integration) at Centre for Autonomous Systems at University of Technology Sydney.

The presentation was well attended.

3.4 Lecture 4: Eng. Kamal Fernando Memorial Lecture - delivered by Dr Nalin Pahalawaththa, Principal Consultant, Network Planning, TransGrid, on the topic “Power System Planning – The Art of Raising a Phoenix” held on 22 August 2018



Nalin Pahalawaththa is a Principal Consultant at TransGrid, the NSW electricity transmission network service provider.

A brief commemoration speech on late Eng. Kamal Fernando was made which was followed by Dr. Nalin Pahalawatte’s lecture. A large audience was present.

4 IESL NSW Chapter newsletters

This year we continued the web-based newsletter as a convenient way of presenting news without the limitations of a formatted structure, which was started in 2017. Readers were able to see the front page of the newsletter with highlights of the content and details were hosted in the website. Using this method, we can monitor the number of readers visiting each page. We issued four newsletters this year.

5 IESLNSW.ORG website and Social media

We continue to enhance the website throughout the year by adding more useful content. All event invitations were issued with a link for registration, so that we could have an estimate of number of attendees. Therefore we could better manage the refreshments and able to create the list of attendees, and registers before the event with names pre- printed.

At the beginning of the year we had a serious problem with our website due to spamming and we had to shut it down and start again. My thanks go to Eng. Dayantha Jayarathna, Eng. (Dr.) Buddhi Wijerathna and Eng. Pamal Dias in getting us back on line after a few months.

ISLE NSW Chapter Facebook page has become very popular among the engineering community as we could share photos and event information conveniently. We also successfully started webcasting our Public presentations via Facebook to reach a global audience.

Eng. (Dr). Buddhi Wijerathna managed the content and the format of the website as well as the Facebook page with Eng. Dayantha Jayarathna assisting with webcasting presentations.

We must appreciate the continuous support given by Eng. Nihal Fernando by fully hosting the website in his servers from the beginning of the Chapter. He offered this service completely free of charge up to last year. Due to unavoidable expenses associated with providing this service there will be a nominal charge for hosting the website and email service from this year.

I like to take this opportunity to thank Eng. Nihal Fernando for the dedicated service to the NSW Chapter.

Also I would like to appreciate services of Eng. Pamal Dial who served as the Web Administrator. This role was introduced last year to maintain continuity and consistency in technical management of the website. He will continue to work with the committee and liaise with Nihal for the administrative matters of online resources.

6 Engineering Convention, Award Presentation and Gala Nite 2018



The Institution of Engineers Sri Lanka, NSW Chapter (IESL NSW Chapter), Engineers' Nite 2018 was held on 9 June 2018 at Hornsby RSL. This was held in grand style for the seventh consecutive time. Invitees were Prof

(Mrs) Niranjanie Ratnayake, President of the Institution of Engineers Sri Lanka, Ms. Julie Mikhail, President of Engineers Australia, Sydney Division, Dr. Marlene Kanga, President of the World Federation of Engineering Organisations (WFEO). Key note speech was delivered by Professor Karu Esselle. This annual event was attended by over 250 engineers, industry experts, academia and many distinguished invitees representing various collaborative organisations.



The Engineering Conference, was held on 8 of June 2018 at the Engineers Australia Auditorium, Chatswood, and preceded the Engineers Nite 2018. The Papers presented were assessed and the Engineering Achievement Awards were presented at the Gala Nite the next day. The assessments were carried out on the established criteria by an independent selection panel.

The Selection Panel consisted of

- Eng. (Dr.) Chinthaka Fonseka
- Eng. (Dr.) Jahan Peiris
- Eng. (Dr.) Premaratne Samaranayake
- Eng. (Dr.) Ranjith Liyanapathirana
- Eng. Yasapala Weerasinghe

I wish to convey my thanks to the Panel members for taking their valuable time for this activity.

Some photos are provided below on the Awards Presentation.



Awards Winners on stage



Eng. Chamindi Jayasuriya



Eng. Bandula Subasinghe



Prof. (Sathaa) Arumugam Sathasivan



Eng. Nilindu Muthubandara



Eng. Manori Suriyarachchi



Eng. Pubudu Jayathileka

6.1.1 Winners of Best Paper Published category

- Excellence Award won by Eng. Chamindi Jayasuriya
- Highly Commended Award won by Eng. Pubudu Jayathileka

6.1.2 Winners of Best Innovation and/or Invention Category

- Excellence Award won by Prof. (Sathaa) Sathasivan
- Highly Commended Award won by Eng. Nilindu Muthubandara

6.1.3 Winners of Best Achievement and/or Contribution in an Applied Engineering Project

- Excellence Award won by Eng. Bandula Subasinghe
- Highly Commended Award won by Eng. Manori Suriyarachchi

7 Our sponsors

Although efforts were made by many committee members, this year the Engineering Convention and the Gala Nite was supported by only one sponsor SMEC Australia Pty Ltd, Member of the Surbana Jurong Group. Eng. Rohitha Silva worked hard to get this sponsorship. We managed to get several advertisements for the Gala Nite Souvenir including UTS and John Keels Group Sri Lanka. The efforts of Eng. Rohitha Silva, Eng. Buddhi Wijerathna and Eng. Waruna Kaluarachchi should be appreciated.

Because of limited sponsorships received, we are in a slightly worse financial position this year. It is important to maintain our professional standards and deliver best possible service to the members and the new Committee should examine ways of raising revenue to deliver the expected outcomes.

8 Industrial Visit

Visit to the NSW Rail Museum at Thirlmere on 4th August 2018



This year's industrial visit took place on Saturday 4th August 2018 to the NSW Rail Museum located at Thirlmere, NSW.

This visit was facilitated by Eng, Udaya Peeligama our Editor, who works at this facility as a volunteer due to his love for locomotives and trains.



A group of the Chapter's members, many with their families and totalling around twenty five assembled at 10.00 am at the Museum and was first entertained to an enlightening presentation by Jennifer on "The Great Strike of 1917" which commenced on the railways and tramways of NSW and soon spread to the rest of Australia, arguably the biggest such event to have taken place in the country.



The tour of the Museum then followed, the group being able to observe and learn of the rich heritage and history and some of the exceptional engineering and design achievements of NSW railways.

My sincere thanks go to Udaya for organising this very successful visit.

9 Regional Cooperation

The tradition of exchanging information between overseas chapters about activities in regular conference calls and also with IESL Head office was continued. The links with Western Australia Chapter and Queensland Chapter were maintained and there had been active conversations when it was required.

We received the invitation to attend the Engineering Nite of Western Australia Chapter and the IESL NSW Chair attended it. It was quite impressive and for the first time Engineering Achievement Awards were presented at their Engineers Night.

10 Chapter membership and Harmonising IESL Overseas Chapter operations

One essential requirement at this stage is to harmonise the constitutions, reporting procedures and processes of all overseas chapters to make them operate in a consistent and accountable manner.

NSW Chapter took the lead in discussing the need for a standardised Overseas Chapter Membership process in consultation with WA and QLD Chapters and a proposal was submitted to IESL President Prof. (Mrs) Niranjanie Ratnayake several months ago.

It is believed it was submitted to the IESL Council, but the Council decision has not been conveyed to us in spite of several reminders

11 Knowledge Sharing Program

Our Past Chair, Eng. Dayantha Jayaratne is closely associated with the NERD on the development of a remote switching solution for street lights in Sri Lanka, which is currently posing many hazards to people. IESL NSW Chair submitted a proposal to IESL HQ on establishing a formal process for engineers from Sri Lanka and NSW Australia for making presentations in each other country on a voluntary basis to start with. Council response is awaited.

It is also required to recognise that Sri Lanka has progressed in many areas in engineering and there are professionals who can offer their services to the international market. Therefore, the knowledge sharing can and should take place in both ways.

12 Working with Engineers Australia

Relationship between Engineers Australia (EA) the Chapter was maintained at a high level throughout this year. Arrangements for IESL President to meet with the EA National President and EA Sydney Division President were unsuccessful due to their non-availability during the IESL President's stay in Sydney.

It was an important achievement to understand that Engineers Australia has included International Professional Engineers from Sri Lanka to be recognised for the EA membership.

Although the announcement is made and the EA website has set up the process, there is more work to be done to formalise this process. The reciprocal arrangements need to be made in Sri Lanka. Again it is not clear when this will be discussed in IESL Council and if that would attract any recognition of council members over their other priorities.

Engineers Australia continued their support in providing the venue for all our public lectures free of charge. I take this opportunity to thank Engineers Australia for their generous support.

13 Working with IESL headquarters

During this year relationship with IESL headquarters was well maintained through regular conversations with IESL President Eng. (Prof) Niranjani Ratnayake and CEO Eng. Neil Abeysekera. They all were keen to assist the Chapters despite the issues they had to deal with in the local context.

NSW Chapter Chair Eng. Sarath Wijayapala visited IESL HQ and had a meeting with President and CEO in March 2018. Many important issues were discussed including formalising Chapter membership and other initiatives. However, the decision making processes in Sri Lanka are quite time consuming and can be quite frustrating.

He also attended the IESL Provincial and Overseas Chapter meeting held on that day, which provided an opportunity to meet the President Elect and other Provincial Chapter representatives.

14 Information/Document Management

The Chapter continued to gather information/documents relating to the Chapter and store them in an orderly manner. Past presidents were requested to access the online storage space over the internet and save their files in the allocated folders. We are making progress in gathering all information in to one place in MyCloud.

15 Financial report

A separate audited financial report prepared by the Treasurer, Eng. Mahendram Manoharan forms a part of this Annual Report.

16 Suggestions for next year

Following is a summary of suggestions for next year. The successful delivery of these outcomes should further enhance the services of IESL in NSW to the engineering profession and its members.

- It is important to review the current constitution as it requires updating. The constitution was drafted at the inception of the Chapter with the intention of revising it in two years. That revision is overdue now, therefore it is required to make necessary changes in consultation with other Chapters and the IESL head office. Although discussions took place with other Australian Chapters of IESL and a process for Overseas Chapter Membership was developed and submitted to the IESL President, the Council decision has not been clearly communicated to our Chapter despite several reminders.
- The Public Lecture series is a popular and useful part of our activities, it should be continued and facilitated. We should also re-activate the Engineers Get-together coming year to engage with young engineers and families
- Engineering Convention is the most significant event, though it is a challenge to meet expectations of audience and ever-increasing costs. Need to carefully manage costs and obtain sponsorships or seek alternative fund raising options to make this a viable activity in coming years
- Review the objectives and guidelines of the mentoring program for migrant engineers to include if this program can be extended to assist professional development of young engineers

- Continue to gather critical information from past NSW committees and save in the private cloud already set up
- Support IESL in maintaining and strengthening the link with Engineers Australia and establish links with Washington Accord member countries as required.
- Assist IESL to sustain the full membership of Washington Accord as required
- Continue to recognise excellence in achievements and promote participation of young engineers in the Chapter activities

17 Conclusion

From the inception of the IESL NSW Chapter in 2009, we have maintained our standard of operations as well as the reputation within the engineering community. We can clearly mark this year as another successful year in operation.

We conducted the usual range of activities such as Lecture Series, Engineering Convention, Industrial visit etc. with good participation. From the past years' experience and feedback we received from our fellow engineers, we recognised the difficulties of young families to take part in professional activities organised by us. Due to family commitments there was a need to provide a suitable occasion to meet other engineers in a family friendly environment. Unfortunately, this year we were unable to organise the Engineers Get together which was held for the first-time last year.

As a Chapter of IESL, it is important to focus in serving the membership, by assisting professional development, networking, and assisting to communicate with IESL Head Office.

Sometimes we hear from members that IESL Head office is not promptly replying to member's emails or other inquiries. As a chapter of this organisation we must develop capabilities to serve the membership to the best of our ability. Although, supporting Sri Lanka with engineering expertise was one of the main intentions in forming the Chapter, it can be observed that it is much more challenging task than we expected. As it was mentioned earlier in this report, there are many practical difficulties in this approach.

Whilst NSW Chapter is able and willing to engage positively with IESL HQ, I have the impression the same enthusiasm is not reciprocated from our parent organisation. This may be due to their higher priorities elsewhere. We have to identify ways of improving productive communications between our Chapter and IESL HQ.

Concluding the report, I would like to thank all members in the Executive Committee, as well as past committee members and well-wishers for their great support and contribution in making this year a success. I would also like to congratulate the new executive committee and extend my fullest support to make the next year another successful year in operation.

Sarath Wijayapala, BSc(Eng)Hons, MSc(EOE), MBA(Tech Mgmt), CEng. HLF IESL, FIEAust, CPEng(Ret)

Chair IESL NSW Chapter (2017/2018)