

IESL NSW Chapter

1. Introduction

This report summarises the events which took place in the current IESL NSW Chapter Management Committee's term of office for 2019/20. Most of the Chapter's activities were compelled to be cancelled from March 2020 due to the ongoing COVID-19 Pandemic. This Annual report will be presented to the Chapter membership at the AGM to be held on 20 September 2020 via the Zoom platform. The report will be sent to IESL Head Quarters for publication in the annual IESL Transactions.

2. IESL NSW Chapter Management Committee 2019/2020

The eleventh Management Committee of the IESL NSW Chapter was elected at the AGM held on 22 September 2019 at the Crestwood Community Centre, Baulkham Hill NSW 2153. The Committee currently consists of the following members.

- Eng. Mahendram Manoharan (Chair)
- Eng. Dr. Ashok Peiris (Vice Chair)
- Eng. Indunil Kariyakaranage (Secretary)
- Eng. Paramsothy Gnanasothy (Treasurer)
- Eng. Prof. Arumugam Sathasivan (Editor)
- Eng. Rohitha Silva (Immediate Past Chair)
- Eng. Sisira Kantha Sanda Marakkalage (Committee Member)
- Eng. Thiruvalluvar Janahan (Committee Member)
- Eng. Dr. Nilakshi Perera (Committee Member)
- Eng. Waranga Dilanthi (Committee Member)
- Eng. Buddhi Ranasinghe (Committee Member)
- Eng. Menuli Sanda Marakkalage (Committee Member)
- Eng. Mihimal Kadurugamuwa (Committee Member)

In addition to the above Committee members Eng. Dr Buddhi Wijerathna was appointed as the Web Administrator and Mr. Prabhath Amarasinghe was appointed as the Auditor. There were 6 face-to-face Committee meetings and 4 online meetings due to the COVID-19 Pandemic restrictions.

3. Membership

IESL NSW Chapter has not yet received the current membership register from the Headquarters.

4. Public Lecture Series

IESL NSW Chapter's Management committee organised 2 Public Lectures for the term of 2019/2020.

The lectures were notified to our membership and published via Engineers Australia website. The events were posted on IESL's Announcements web page. Engineering organisations in both private sector and public sector, universities etc. were informed about these public lectures.

The presentations were about one-hour of duration with a fifteen minutes Questions and Answer time with the audience at the end of the presentations. Engineers and students from different engineering background participated in the lecture. The lectures were live telecast via the Chapter Facebook. IESL Headquarters was provided with the presentation materials of the Public lectures.

The details of the Public Lectures are as follows.

- Lecture delivered by Eng. Indaka Raigama (CEO & Co-Founder, iTelaSoft Pty Ltd.), on 13 November 2019 at the Engineers Australia Auditorium, on “Evolution of M2M Communications”.
- A Public Lecture was delivered by Prof. Sarath Perera on Power Quality - A subject of increasing interest on 29 January 2020 at the Western Sydney University, Parramatta CBD Campus.



Eng. Indaka Raigama



Prof. Sarath Perera

5. Young Engineers Day

The Young Engineers Day was held on 20 February 2020 at the Western Sydney University, Parramatta CBD Campus. 10 Engineers presented on a wide range of topics at this annual event.

The event was notified to our membership and published via Engineers Australia website. The details of the Young Engineers Day were posted on IESL’s Announcements web page. Engineering organisations in both private sector and public sector, universities etc. were informed about the Young Engineers Day.

The 10 presenters were allocated 10 minutes each for their presentations with a 5 minutes Questions and Answer session at the end of each presentation. Engineers and students from different engineering background participated in this event. The event was live telecast via the Chapter Facebook. IESL Headquarters was provided with the presentation materials of all 10 participants.

The details of the presentations at the Young Engineers Day are as follows.

- Eng. Dileepa Rathnayake - Evaluating Sewer Corrosion Control Options Using a Novel Laboratory Scale Sewer System

- Eng. Hasindu Gamaarachchi - Real-time, portable and lightweight Nanopore DNA sequence analysis using System-on-Chip
- Eng. Kanashya Thivagarupan - Rolling Stock – New Intercity Fleet and Tangara Technology Upgrade Projects
- Eng. Nadeesha Abayaratna - Risky Business: The Importance of Risk Management and Safety in Design
- Eng. Mahendran Roobavannan - Role of Economic Diversification in Sustainable Water Management: A Socio-Hydrological Analysis
- Eng. Viraj Kulathunge - Nanotechnology-based cancer imaging and treatment methods
- Eng. Kavindie Katuwandeniya - Efficient and Effective Human Robot Interactions in Dynamic Environments
- Eng. Madhawa Premarathna - Enhancement of Organic Matter and Total Nitrogen Removal in a Membrane Aerated Biofilm Reactor using PVA-Gel Bio-Carriers
- Eng. Darshana Jayasinghe - Revealing Secret Information via Emanated Side-Channel Information
- Eng. Chamal Perera - Space Engineering as viewed as a student



Dileepa Rathnayake



Hasindu Gamaarachchi



Kanashya Thivagarupan



Nadeesha Abayaratna



Mahendran Roobavannan



Viraj Kulatunga



Kavindie Katuwandeniya



Madhawa Premarathna



Darshana Jayasinghe



Chamal Perera

6. IESL NSW Chapter Newsletters

The IESL NSW Chapter issued 2 Newsletters on 19 December 2019 and 2 April 2020. The third Newsletter for the current term will be published in mid-September 2020. The objective of these Newsletters is to communicate with the General membership in NSW and ACT creating awareness in, the Chapter activities, achievements of member engineers and Sri Lankan news and events related to engineering. The Newsletter also includes general engineering articles written by members. The Chapter Newsletters are sent to IESL Headquarters to be circulated among engineers in Sri Lanka.

7. COVID-19 impact on Chapter activities for 2019/2020

The Institution of Engineers Sri Lanka NSW Chapter Management Committee had its 9th Committee Meeting via Zoom on 24 July 2020 and the following decisions were taken on the Chapter's activities for the term 2019/2020. The committee took into consideration the

current status of the COVID-19 pandemic in NSW and interstate and the public perception of the pandemic and made the decisions below.

1. The following events for the term 19/20 were cancelled.
 - Women in Engineering Day event
 - 2 nos. of scheduled Public Lectures – The presenter designated for the cancelled event will be given the opportunity in 2020/2021
 - Engineering Conference – 3 nominations were received and will be considered for the next event in 2021
 - Gala Dinner
 - Industrial visit
2. The Annual General Meeting (AGM) of the Chapter will be held on 20 September 2020 via the Zoom web application.
3. The Engineering Magazine 2020 will not be issued during the current Management Committee's term.

8. Collaboration with Engineers Australia (EA), IESL HQ and other Organisations

IESL NSW Chapter participated in the Sydney Engineering Practice Forum (SEPF) quarterly meetings held on 6 February 2020, 28 May 2020 and 27 August 2020. These meetings are chaired by Engineers Australia and attended by many practicing engineering groups in NSW. IESL NSW Chapter took part in the IESL Provincial/Overseas Chapters quarterly meeting on 7 December 2019, 7 March 2020 and 20 June 2020. The next meeting will be held on 12 September 2020.

IESL NSW Chapter's Eng. Chinthaka Rupasinghe and his Miracles Live Band Sydney performed at the Live Virtual Musical Fiesta on Friday, 10 July 2020 organised by the Civil Engineering Sectional Committee of the Institution of Engineers Sri Lanka (IESL) jointly with the Music Engineers.

The IESL Chapter participated in the following events organised by the Consulate General of Sri Lanka, Sydney.

- Official inauguration of the Sri Lankan Food & Cultural Tourism Festival – 2019 at the Tumbalong Park, Darling Harbour, Sydney on 23 November 2019.
- Meeting on the way forward 2020, held at the Thornleigh Community Centre, Thornleigh, Sydney on 19 December 2019.
- 72nd Sri Lankan Independence Day celebrations on 04 February 2020 at Great Hall of the University of Sydney

Chapter donated engineering books to Sri Lankan Universities via the Consulate General of Sri Lanka, Sydney. IESL NSW Chapter took part in the Hearts Aflame Sydney event held on 1 February 2020 at the Croatian Club Punchbowl Sydney, organised by the Sri Lankan Communities in NSW to raise funds for the Bush Fire affected communities.

9. Our Sponsors

The IESL NSW Chapter received only limited sponsorship since the Engineering Convention was cancelled due to the COVID-19 pandemic. GEO-AM Consulting and ECON HOMES are the sponsors of the Chapter activities in 2019/2020. Chapter received a considerable

amount as voluntary contribution from its members which is appreciated by the current Management Committee.

10. Financial Report

The audited Financial Report prepared by the Chapter Treasurer, Eng. Paramsothy Gnanasothy is attached with this Annual Report.

11. Achievements by Engineers of IESL NSW Chapter

Past Chair of the IESL NSW Chapter Eng. Dayantha Jayarathna who has been working tirelessly on the Street Light Controller Project marked a major milestone of the project by demonstrating a functional prototype of the product to the representatives from CEB, LECO and SLBC on 31 August 2020. At the moment the product is in the prototype stage which can be used to evaluate the performance in the field under controlled conditions. An industrialised version will be developed and further discussions will be conducted with relevant parties to introduce as a fully developed commercial product providing a safe and reliable streetlight control system for Sri Lanka.

Chapter Engineer Professor Wije Ariyaratne (Ari) commenced as the **first** Professor of Practice (Bridge Engineering) to join the School of Civil Engineering, University of Sydney from July 2019. Ari obtained his Bachelor of Engineering degree from the University of Ceylon, Master of Engineering degree from the University of NSW and Graduate Diploma in Business Management from Deakin University. He is a Fellow of Engineers Australia and was previously an Adjunct Professor of Engineering at the University of Technology Sydney (UTS).

12. Challenges faced by the Chapter and the way forward

IESL NSW Chapter which is the 1st overseas Chapter was formed in 2009. The Chapter has grown over the last 11 years with a current membership of more than 500 engineers living and practicing in NSW and ACT. Some of the issues and challenges faced by the Chapter are as follows.

- Difficulties in finding engineers to volunteer and become Management Committee members of IESL and taking part in chapter activities
- Financial viability of the Chapter – An uphill task to cover the operating deficit with sponsorships and voluntary contributions

Some areas, on which the newly elected committee and the future committees could work on and achieve excellence, are as follows.

- Renewing the agreement for the mutual recognition of engineers between IESL & EA which had lapsed on 17 June 2020
- Recognising engineers who have made outstanding contributions in NSW/ACT
- Reaching out to engineers in ACT
- Increasing interaction amongst the past Management Committee members

13. Conclusion

IESL NSW Chapter sincerely appreciates the lecturers who delivered the Public Lectures and the presenters at the Young Engineers Day for their contributions towards the Chapter activities in 2019/2020. The assistance provided by Engineers Australia and the University of

Western Sydney is highly appreciated by the current Management Committee. Our special thanks go to the sponsors and the engineers who made voluntary contributions enabling the Chapter to sustain its activities. Chapter acknowledges the support provided to the current Management Committee by past committee members and well-wishers.

I sincerely appreciate the current IESL NSW Chapter Management Committee for the contribution and support, for the activities organised during the term of 2019/2020. My sincere gratitude goes out to the Web Administrator and Auditor for their continuous assistance provided to the Chapter. I warmly congratulate the newly elected Management committee and extend my fullest support during the upcoming term of the committee.

(Reported by Eng. Mahendram Manoharan, Chair - IESL NSW Chapter)