



NEWS LETTER

THE INSTITUTION OF ENGINEERS SRI LANKA

WESTERN AUSTRALIAN CHAPTER

April 2021 Issue

Institution of Engineers Sri Lanka, Western Australia Chapter – 7th Annual General Meeting was held on 20th of December 2020 at Centenary Pavilion, Centenary Avenue, Wilson WA 6107.

The following committee was elected uncontested for the year

	Position	Name
1	President	Tissa Wijayasinghe
2	Vice President	Manjula Abayawickrama
3	Secretary	Anuradha Wijayasinghe
4	Treasurer	Muditha De Silva
5	Editor	Jayantha Dharmaratne
6	Committee Member 1	Sumedha Rajakaruna
7	Committee Member 2	Dilan Amarasinghe
8	Committee Member 3	Chirantha Weerawardena
9	Committee Member 4	Rajinda Jayamanne
10	Committee Member 5	Kasun Jayaratne
11	Committee Member 6	Harshanie Jayasinghe
12	Committee Member 7	Tilak Jayantha
13	Committee Member 8	Asoka Wickramasuriya
14	Committee Member 9	Mahesh Kariyawasam



Appointed committee members of IESL WA Chapter for 2021

Committee Members (From left to right): Front Row: Eng. Manjula Abayawickrama (Vice President), Eng. Anuradha Wijayasinghe (Secretary), Eng. Tissa Wijayasinghe (President), Eng. Muditha De Silva (Treasurer), Eng. Jayantha Dharmaratne (Editor).

Back Row: Eng. Tilak Jayantha, Dr. Sumedha Rajakaruna, Eng. Chirantha Weerawardena, Dr. Dilan Amarasinghe, Eng. Mahesh Kariyawasam, Eng. Asoka Wickramasuriya, Eng. Harshanie Jayasinghe

Message from the Chapter President

Despite being a difficult year 2020, the chapter managed to achieve many tasks/events, thanks to the efforts of the past 2019/2020 committee. Three online seminar presentations, one site visit, one social barbeque and three face to face presentations were successfully completed during the period of the previous committee. I wish to thank and congratulate the previous committee personally and on behalf of the general membership for their wonderful efforts.

Annual general meeting for the start of the year 2020/2021 was held on 20 Dec 2020 and the details of the new committee and event details are given in this newsletter.

As the new President for the year 2020/2021 I wish to convey my sincere thanks to the general membership, well-wishers of the public and all members of the previous committees for their efforts in keeping this organisation active and in good spirits.

This year we have had one online presentation and a social barbeque. Few more events are on pipeline and will keep the general membership informed through our newsletters.

I am really encouraged by the enthusiasm shown by the new committee and the other supporting members of our engineering community. With this support we hope to progress to a productive 2020/2021 session.

Wish you all a happy Sri Lankan festive season.

Tissa Wijayasinghe

Our sixth annual general meeting was held on 27 October 2019 and the elected committee functioned successfully till December 2020 in a COVID affected period. The details of the committee and the events and tasks carried out during this period are;

THE ELECTED COMMITTEE FOR THE YEAR 2019/2020

	Position	Name
1	President	Chirantha Weerawardena
2	Vice President	Dilan Amarasinghe
3	Secretary	Lakshman Jayasundara
4	Treasurer	Bandula Samarasinghe
5	Editor	Jayantha Dharmaratne
6	Committee Member 1	Lal Jayaweera
7	Committee Member 2	Tissa Wijayasinghe
8	Committee Member 3	Rajinda Jayamanne
9	Committee Member 4	Aruna Gunatilake
10	Committee Member 5	Muditha De Silva
11	Committee Member 6	Kasun Jayaratne
12	Committee Member 7	Vishwanath Gunatilake
13	Committee Member 8	Bandula Gunawardena
14	Committee Member 9	Chris Perera

The post of Hon. Auditor

AGM passed a resolution to give authority to appoint a suitable Auditor as it was informed that Mr Soma Meegahage is not available. During committee meeting on 11th November, Dhammika Thelikada Gamage (CPA/ICAAZ/IPA) was appointed as Hon. Auditor

The following members were appointed for three appeal committee members as per the Constitution

	Position	Name
1	Appeal Com. Member 1	Ajith Mathota
2	Appeal Com. Member 2	Nimal Jayaratne
3	Appeal Com. Member 3	Mithra Mudiyansele

Presentations and events organised by the IESL WA subcommittees in 2019/20 period

Event 1 - November CPD Presentation


Energy Policy Matters – Understanding the energy policy paralysis in relation to the oil and gas value chain - Eng. Nalin Gunasekera

(Organised by Mining Engineering Subcommittee)

Energy Policy Matters

Understanding the energy policy paralysis in relation to the oil and gas value chain


Presenter:
Eng. Nalin Gunasekera
Oil & Gas Consultant




DATE: Monday 4th November 2019
TIME: 5.30pm
VENUE: North Metropolitan TAFE Campus
30 Aberdeen Street, Northbridge, WA, 6003
ENTRY: Free of charge and just walk in

Presentation Highlights:

- The current state of energy policy paralysis globally, with reference to Australia and Sri Lanka
- Why oil and gas companies invest? Understanding the value chain and its brief history
- Future trajectory of the global oil and gas business, its future and the challenges and risks they face
- The policy changes in major oil companies



About the speaker



Nalin trained as an Engineer at University of Ceylon, Sri Lanka and was a postgraduate Colombo Plan scholar at University College London, University of London. He has spent the past 38 years in the upstream oil and gas exploration and production sector, and specializes in monetizing challenging oil and gas reserves including harsh met ocean environmental conditions across numerous difficult jurisdictions, diverse fiscal regimes and high risk economically marginal reserves. In addition to Shell, he has worked with oil majors such as ExxonMobil, TOTAL, Gulf, Apache, BP, as well as with numerous smaller oil companies such as BHP, Maxus, Woodside, Santos, ONGC, Mitsubishi and various national oil companies such as Petronas, PTTEP, CNOOC and other undisclosed clients. Nalin has reviewed and advised SL's Mannar gas development and has been reviewing the introduction to LNG via a FSRU since 2012 and has given many presentations to interested parties in SL.

Nalin specializes in the bringing together key stakeholders such as Regulators/ Governments, Oil Companies, Lenders/Banks and Service Providers/ Contractors to monetize and in reaching successful fruition of projects. His experience includes projects the Middle East, Asia, West Africa, South America and in Australia/ NZ. He works out of offices in Perth and Singapore, the regional epicenter for project management of most major regional Asian projects. He has lived long term in more than 10 countries.

Event 2 – New Year BBQ

(Organized by Mining Engineering Subcommittee)



Event 3 – January CPD Presentation

Renewable Energy for Electricity Generation - Sri Lanka's Experience and Proposed way Forward

- By Prof. Anura Wijepala

(Organised by Electrical Engineering Subcommittee and hosted by School of Electrical Engineering Computing and Mathematical Sciences, Curtin University and Technology)



Curtin University

Renewable Energy for Electricity Generation Sri Lanka's Experience and Proposed way Forward

Presenter: **Prof. Anura Wijayapala** B.Sc.(Eng), M.Sc.(Eng), FIESL C.Eng.
CEO, WindForce Pvt. Ltd and Associate Professor Department of Electrical Engineering, University of Moratuwa.

Hosted by: School of Electrical Engineering Computing and Mathematical Sciences,
Curtin University and Institution of Engineers Sri Lanka – WA Chapter



DATE: Monday 13th January 2020 TIME: 5.00 pm

VENUE: Curtin University (building and room number TBA)

The electricity Sector in Sri Lanka is a government monopoly for transmission and distribution while electricity generation is partly supported by Independent Power Producers (IPPs). Sector is regulated by the Public Utilities Commission of Sri Lanka (PUCSL). Total installed capacity of the system is 4000MW with the evening peak of 2700MW. Annual electricity generation is 15000 GWh. The demand for electricity grows at about 6% for both capacity as well as for energy.

Sri Lanka had a near 100% renewable based electricity generation until about mid-1980s. Many large hydro power plants have been constructed over several river basins totaling to a capacity of 1400MW while small hydro power plants contribute about 400MW. Currently there are about 130MW of wind power and about 90MW coming from solar and biomass. Solar roof tops contribute about 150MW. Another 100MW wind power plant is under construction. Introduction of the Standard Power Purchase Agreement (SPPA) for the private sector development of New Renewable Energy (NRE) Sources with attractive feed- in tariffs has resulted in the small hydro, wind solar and biomass power plants as IPPs with investments coming from local business communities.

The intermittency of wind and solar as well as the seasonality of wind and hydro generation creates major issues in system management. Large hydro generation is also affected by cyclic dry years. Speaker will present on the impact of intermittency of renewable sources and its impact on System Management.



About the Speaker

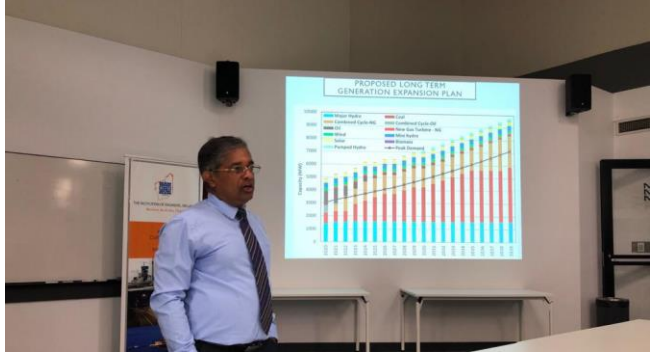


Prof. Anura Wijayapala is an Electrical Engineer graduated from University of Moratuwa in 1991. He served in the private sector electrical engineering industry for 15 years before joining as a Senior Lecturer in the Department of Electrical Engineering of University of Moratuwa in 2006. During his time in the industry, he has served as a Transformer Design Engineer and a Factory Manager, Diesel Power Plant Manager and Small Hydro Power Project Manager.

He obtained his Master of Engineering Degree in 2001 from University Moratuwa. He has been a Chartered Electrical Engineer since 1996 and he is a Fellow of the Institution of Engineers, Sri Lanka as well as an International Professional Engineer. He was promoted as an Associate Professor at University of Moratuwa in 2017.

He has served as the Chairman of Ceylon Electricity Board, Chairman of National Engineering Research and Development Center, Chairman of LTL Holdings Pvt Ltd, Chairman of Trincomalee Power Company Pvt Ltd and Director at Lanka Electricity Company (Pvt) Ltd and Director at Lanka Coal Company (Pvt) Ltd.

Presently, he is on sabbatical leave from the University of Moratuwa and serving as CEO of WindForce Pvt Ltd, the largest renewable energy company in Sri Lanka.



Event 4 – February CPD Presentation

Maintenance Fundamentals – The basic introduction and understanding of Maintenance within the O&G and Mining industries

—By Matheesha Jayasekera (Organised by Mechanical Engineering Subcommittee)

Maintenance Fundamentals

The basic introduction and understanding of Maintenance within the O&G and Mining industries

Presenter:
Matheesha Jayasekera
Maintenance and Reliability (SME) Consultant, Nihar Associates Pty Ltd/
Governor of Petroleum club WA



DATE: Monday 3rd February 2020
TIME: 5.30pm

VENUE: North Metropolitan TAFE Campus
30 Aberdeen Street, Northbridge, WA, 6003

ENTRY: Free of charge and just walk in

Sponsored by



PEAK ASSET PERFORMANCE

Presentation Highlights:

- Maintenance Basics and Terminology
- Maintenance Process
- Maintenance System Set Up (CMMS/ERP)
- ISO 55000 and how it applies
- Future Trends



About the speaker



Matheesha has been in the industry for over 20 years and is a mechanical engineer. During that time he has spent supporting major O&G and mining clients worldwide in maintenance, reliability and maintenance consultancy. He currently holds a dual role as a Maintenance SME and Business Development Lead for Nihar and is a Governor of Petroleum Club of WA.

During his career he has worked both nationally and internationally for many of the majors such as Woodside, Shell, Modec, Santos, South 32 and BHP to name a few.

He has extensive experience in business development and building long-term sustainable business models for small organisations through business intelligence, marketing, branding and basic business fundamentals.

"Maintenance when done well can extend the life of your asset and minimise the overall cost, which is the goal of a reliability or maintenance engineer."



All other CPD events planned for rest of the year had to be cancelled due to Covid-19 restrictions. But they were successfully presented through Webinar

Event 5 (1st Webinar)– July CPD Presentation



Challenges in design, construction and maintenance of Tailings Storage Facilities -
Introduction to tailings storage facility design and construction

—By Sam Dalugoda (Organised by Civil Engineering Subcommittee)

Challenges in design, construction and maintenance of Tailings Storage Facilities


Introduction to Tailings Storage Facility design and construction

Presenter:
Sam Dalugoda
BScEng (Hons), MEngSc, MIEAust, CPEng, NER, RPEQ
Associate Geotechnical Engineer, ATC Williams Pty Ltd


	<p>DATE: Monday 27th July 2020</p> <p>TIME: 4.00pm AWST (6.00pm AEST, 1.30pm Sri Lanka Time)</p> <h3 style="margin: 0;">Webinar</h3> <p>https://us02web.zoom.us/j/83670807062</p>	
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Presentation Highlights:

- Introduction to Tailings Storage Facilities (TSFs) and how they differ from water reservoirs
- Main aspects of TSF Design
- Overview of design guidelines (ANCOLD & DMIRS)
- TSF Construction, Operations & Monitoring
- TSF Closure



About the speaker

	<p>Sam is a chartered professional engineer with 14 years of experience as a geotechnical engineer working in mining and civil industries in Australia. He has a broad range of geotechnical experience encompassing the areas of dams and tailings, soft soil engineering, shallow and deep foundations, soil and rock slope stability assessments, earth retaining structures, numerical modelling of soil/structure interaction problems and geotechnical investigations.</p> <p>Sam is experienced as a project manager and a team leader. In addition, Sam has authored several publications and has been recognized with awards including the best conference paper award.</p> <p>Currently Sam is working as an associate geotechnical engineer for ATC Williams and he is involved in delivering tailings dam designs for a range of clients including RTIO, BHP, Anglo Gold Ashanti, FMG and Regis Resources to name a few.</p>
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Event 6 (2nd Webinar)– September CPD Presentation

Electric and Autonomous Vehicles – The three major revolutions currently happening in the Automotive Industry

—By Prof. Thomas Brauni

(Organised by Electrical Engineering Subcommittee)

Electric and Autonomous Vehicles

The three major revolutions currently happening in the Automotive Industry

Presenter:
Professor Thomas Brauni
MEngSc, PhD Eng
Professor in Electrical Engineering, University of Western Australia



DATE: Monday 14th September 2020
TIME: 4.00pm AWST
(1.30pm Sri Lanka Time, 6.00pm AEST)

Webinar

Webinar details :TBA



Presentation Highlights:

- Connected Vehicles
- Electric Vehicles
- Autonomous Driving
- Future trends in the autonomous industry
- UWA's Renewable Energy Vehicle Project (REV)



About the speaker



Thomas Brauni is professor at The University of Western Australia, Perth, where he directs the Renewable Energy Vehicle Project (REV) as well as the Robotics & Automation Lab.

He has converted several road-licensed cars to battery-electric drive and autonomous driving and operates one of Australia's largest EV charging networks with 24AC & DC charging stations.

He was Technical Director of the Western Australian Electric Vehicle Trial and Principal Investigator of the ARC Electric Vehicle Fast-Recharging

Event 7 (3rd Webinar)– October CPD Presentation

The Development in Subsea Processing, its Reality and Aspiration - An enable technology for the development of stranded reserves and in an environmental efficient manner

—By Luca Letizia

(Organised by Mechanical Engineering Subcommittee)


The Development in subsea processing, its reality and aspiration

An enable technology for the development of stranded reserves and in an environmental efficient manner.

Presenter:

Luca Letizia PhD, MBA

Regional Manager for Australia, China, Indonesia and Japan — OneSubsea at Schlumberger




DATE: October 12th October 2020

TIME: 4.00pm AWST
(1.30pm Sri Lanka Time, 6.00pm AEST)


Webinar Details: TBA

<https://us02web.zoom.us/j/88184223256>




Presentation Highlights:

- My Value moment
- Why Subsea processing
- What is subsea processing
- Pump or pump system?
- Track record
- Subsea compression
- Ormen Lange
- Latest Development



About the speaker



Luca graduated from Naples University in the mid 90's, and followed with a PhD in Chemical Engineering in Nottingham University in UK, and a MBA from Warwick Business School.

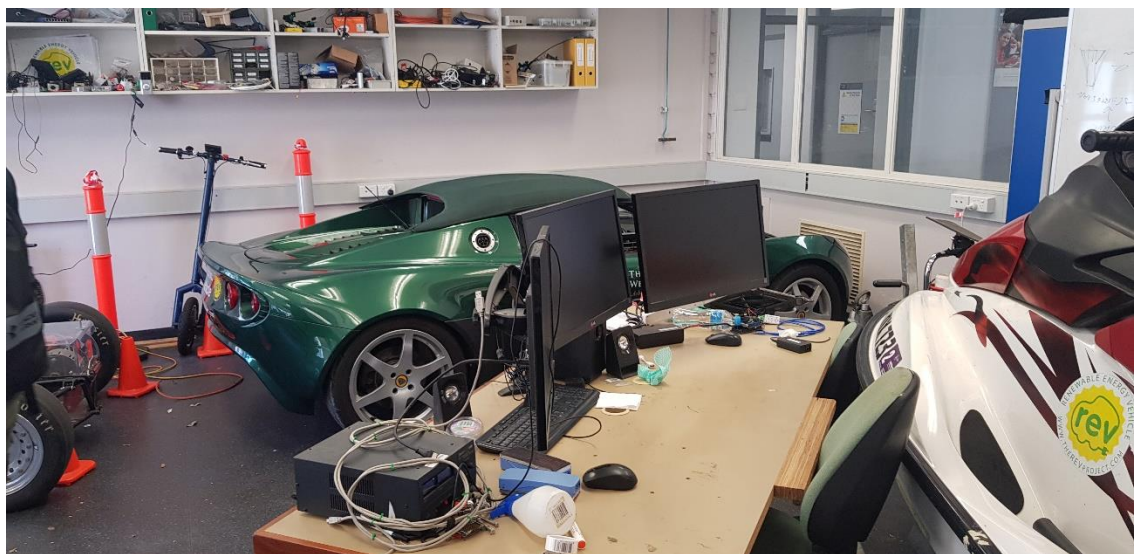
Luca has changed few roles during his 20 years career, starting in software development, followed by roles product management, general management and more recently commercial roles. Since moving to Australia in 2010, Luca focus has been on subsea project with a specific interest in subsea processing projects in Australia and China.

In his spare time, Luca is a keen surfer and mot6orbike enthusiast and trying to pick up woodwork and gardening.

Event 8 – Site Visit to UWA Renewable Energy Vehicles (REV) Lab (16th October 2020)

(Organised by Electrical Engineering Subcommittee)





- END NEWS LETTER -