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A Member Association of  
the International Federation  
of Consulting Engineers

Issue 28

## KEEP IN TOUCH WITH THE ASSOCIATION OF CONSULTING ENGINEERS, SRI LANKA

### FROM THE EDITOR.....

It is a great honour and pleasure to present the 28th issue of ACESL newsletter after long stay.

Looking back, I feel satisfied in having achieved the goals up to some extent by providing some extent by providing here by information useful for the professionals in the consultant industry.

Request from all members to send short comments about anything that appears in this issue and or new thoughts. We are ready to publish them.

In the year 2017, We look forward to serve as a team to achieve the set targets successfully with the support from all the members of the association and our well-wishers.

Taking this space, I would like to wish you all happy and prosperous New year 2017.

### Annual General Meeting

The Annual General Meeting for the Year 2017 was held on 20th January 2017 at Hotel Ramada, Colombo 03. The AGM was attended by forty three members including seven member firms.

### Obituaries

A period of silence was observed as a mark of respect to late Eng. H G Thilakaratne.

### New Members elected to the Council

Eng. K.Suntharalingam, Eng. S.H.U. De Silva and Eng. A.W.Gamage were elected at the AGM to fill the three vacancies in the Council.

### Amendments to Rules

Resolutions were passed at the AGM to the following effect;

**Rule 46:** At General Meetings, a Member company or firm shall be represented by a director /partner who is a Member of the ACESL.

**Rule 48:** The proxy appointed by a Member company or firm or individual Member to attend a General Meeting and to vote at the meeting shall be a Member of the ACESL

**Rule 51:** The number of Office bearers is increased from four to eight by creating the following offices;

- Honorary Assistant Secretary of the Association,
- Honorary Assistant Treasurer of the Association.
- Editor,
- Coordinator, Young Professional Forum

**Rule 54:** Cheques of the Association's bankers shall be signed by the Honorary Treasurer, or in his absence, by the Honorary Assistant Treasurer and either the President or the Honorary Secretary, or in his absence, by the Honorary Assistant Secretary named under Rule 51.

**Rule 56:** A retiring president will continue as a Council member for the following year and will be designated Immediate Past President. When the incumbent President is elected for a consecutive term, the incumbent Immediate Past President will also continue for the following year.

**Rule 60:** A valid nomination referred shall satisfy the criteria; No person other than a Member whose name has been on the Register of Members of the Association for more than two years and who is not in arrears of subscription in respect of membership or other sum (if any) which shall be due and payable to the Association for over one year, shall be entitled to be nominated or to nominate or second a nomination.

**Rule 65(e):** The office of a member of the Council shall be vacated if he fails to attend any three meetings of the Council unless he has obtained from the Council leave of absence owing to being abroad, illness or other sufficient reason

**Form C:** The word "apply" in phrase "to apply for payment of your subscription" replaced with word "request".

### Outgoing President's Address

Eng. Dr. Kamal Laksiri, in his address as the President of ACESL, mentioned that it was a very important day for him and Eng. Ranjan Gunawardena having the annual meeting and having just returned from Broadlands Power project after a major breakthrough in the Link Tunnel. In his address, he said that there was the need to amend the existing rules of the Association to remove some ambiguities which are the main cause of the problems currently faced by ACESL. He hoped that the amendments made at this AGM would improve the functioning of ACESL. He also stressed on the need and duty of members to actively participate in ACESL affairs and invited them to do so. He said as also pointed out by other members the number of members remain almost the same during the recent years and this is not acceptable.

He said there are over 400 consulting firms in the country and some are willing, but find difficult join the ACESL, because of certain requirements in our rules which need to be further examined.

He said that though much could not be done during the year, a very successful workshop on Contract Management was conducted.

He said that Young Professionals' Forums in some countries are very strong, but we are still struggling to get members for the YPF. In its Council, Board of Management and several Task Committees.

He also mentioned that ACESL is represented at CIDA. He also said that as reported earlier, ACESL members participated in the FIDIC ASPAC Seminar held in New Zealand in May 2016 and in the Annual Conference of FIDIC held in Morocco in September 2016.

Dr. Laksiri pointed out that as the national chapter of FIDIC, ACESL has an important role to play. For example, he said that most of our contracts are made as per FIDIC Guidelines, but the familiarity of some engineers is not satisfactory. This is not something unique to Sri Lanka but as he gathered from some participants to the ASPAC Seminar in New Zealand, FIDIC Guidelines are sometimes abused in their countries for lack of understanding. It is our duty as ACESL to intervene in this issue to draw attention of our engineers on correct use FIDIC Books with proper understanding of the philosophy behind. He said that he will work hard on these issues with the team for next session and will work.

He further mentioned that it is pleasure to inform that Eng. Malith Mendis has been accepted as an Accredited Trainer by the FIDIC to represent Asian Region and he has been invited to the FIDIC team to review the Silver Book and the Red Book.

As the outgoing President, Dr. Laksiri thanked all the members for giving him the opportunity and to coordinate with him during the past year.

#### **Address by the Guest Speaker**

Guest Speaker, Eng. Nissanka N. Wijeratne, CEO, The Chamber of Construction Industry and Former Secretary, Ministry of Construction & Engineering Services in delivering his lecture addressed on the problems and issues faced in the Construction Industry and enlightened on the progressive measures taken by the Construction Industry Development Authority.

#### **Council Meetings and Activities**

The 1st Council Meeting for the Session 2016/2017 was held on 20th February 2017.

The Members of the new Council and the Office Bearers elected at the 1st Council Meeting are;

Eng. Kirthi Sri Senanayake	- President
Eng. Rathna Rupasinghe	- Vice President
Eng. H.P.R.Gunawardena	Honorary. Secretary
Eng. Ananda Senerath	- Honorary Treasurer
Eng. A.W.Gamage	-Honorary Assistant Secretary
Eng. Dr.R.U.Halwatura	-Honorary Assistant Treasurer
Eng. K.G. Dayananda	-Editor
Eng. Dr .Kamal Laksiri	Immediate Past President
Eng. Dr.R.U. Halwatura	-Chairman, Young Professionals' Forum
Eng P.C.Jimasena	Council Member
Eng.Malith Mendis	Council Member
Eng.S.H.U.De Silva	Council Member
Eng.K.Suntharalingam	Council Member

#### **Council Decisions**

Taking note of the members' concerns expressed at the last AGM, Council discussed those issues in detail and the following decisions were taken.

- (i) To formulate a strategic plan for the ACESL
- (ii) To pursue on the Accreditation of Consulting Engineers.
- (iii) To pursue on the revision of Procurement Guidelines/Manuals for Employment of Consultants.
- (iv) To update the ACESL Website and publish the newsletter regularly for better interaction with the members.
- (v) To publish the following in the ACESL web and/or in the Newsletter for the information of members.
  - The important Council decisions
  - Rules of the ACESL (updated)
  - Forthcoming important events
- (vi) To explore how to exploit the Website space for the benefit of members e.g. by publishing the directory of Consulting Engineers, relevant advertisements by others for promotion of conferences etc.,
- (vii) To carry out a membership promotion campaign e.g. by creating awareness on ACESL among engineers
- (viii) To campaign for the formation of a Young Professionals' Forum
- (ix) To conduct a workshop to sort out any remaining Problems in the Rules
- (x) To rejuvenate the ACESL Journal
- (xi) To conduct seminars to discuss major developments projects in the pipeline or in progress and advice the authorities with professional opinion
- (xii) To conduct training programmes for the Engineers

### President's Message

I am extremely grateful to the Council Members for the trust and honor bestowed upon me by electing me as the President of ACESL.

I had the privilege to serve in the Council during the past two years. I realized how difficult it is to run the association and deliver all what the members need from the Council. It is going to be a big task, but I assure all the members of ACESL that I will endeavor to meet your expectations.

During the two Council Meetings we already had, a number of issues were identified and an action plan is being prepared to address them. Council alone cannot do that.

It needs your support and advice and the inputs. First of all, we have to put our house in order. I propose to set up several task committees to work on each important issue. Please do feel free to send your ideas, suggestions and proposals that help in achieving the objectives of ACESL. I am confident that all members will help in our efforts to the best possible.

Let us work together!

Eng. Kirthi Sri Senanayake  
President, ACESL

### International Workshop on Contract Management- Sri Lanka

Two-day International workshop on Contract management was held on 9<sup>th</sup> and 10<sup>th</sup> August 2016 at OZO Colombo Hotel, with over 80 Engineers participating.

The workshop was conducted by FIDIC accredited trainer Eng. Malith Mendis, Past President ACESL, Member, FIDIC Capacity Building Committee, Sri Lanka, and Country Representative – Dispute Resolution Board Foundation.

It was a great platform for the participants to get practical know-how on correct application of different FIDIC documents in today's international projects.

At the work shop participants could also get essential know how on FIDIC There were Engineers, Project Managers, Claim Managers, Consultants and Contractors among the participants. At the end, certificate was awarded to them.



Inauguration of the Workshop



Eng. Dr. Kamal Laksiri delivering the Welcome Address



Eng. Malith Mendis conducting the Workshop



Section of the Participants



Energy efficiency of a building is considered as a main aspect of a building design as, it contributes significantly to running cost of a building and, it affects the thermal and optical comfort of the occupants. Energy efficiency rating systems are widely used in many countries as a key policy instrument that assist the government's aims for reducing the energy consumption. Stein and Meier [1] has defined energy rating system as "a method for the assessment of predicted energy use under standard conditions and its potential for improvement". The commonly available energy certification schemes provide an output with predicted energy use, a rating score compared to a reference building or reference value and recommendations for energy efficiency improvements. The direct benefits associated with the energy rating systems include the reduction in energy requirement and CO<sub>2</sub> emission; energy cost reduction for the consumers, and improving the building data available for policy making [2].

Based on the assessment type, the existing energy rating systems for buildings can be categorized in to two as calculated rating (asset rating) and measured rating (operational rating). In asset rating systems, the energy consumption is calculated or simulated and the inherent energy performance of the properties of the building are considered. Different rating systems use various calculation tools and simulation models such as BREDEM (SAP), AccuRate (NatHERS) and HOT2000 (EnerGuide) etc. In operational rating, the actual energy consumption is measured using utility meters and can be commonly seen in rating of the existing buildings [3]. Normalization is widely applied in operational rating in order to minimize the impact of occupant behavior to the rating. There are few attempts to combine the two rating types to provide a more accurate rating. In China MOHURD rating system displays both ratings, however the integration of the systems are not still successful.

The point of energy measurement is important when measuring and calculating energy use. The energy is categorized in to tow as site and source energy based on the point of measurement. The energy

consumption reflected in the utility bills are in the site energy category and this may be the primary energy such as natural gas or fuel oil, or secondary energy such as the electricity which can be purchased from the grid. Source energy provides more accurate determination of the building energy consumption and thus more recommended for the energy ratings. Energy star and Building Energy Quotient are two examples of the rating systems which use source energy for the measurements. Usage of renewable energy such as solar energy is widely considered in many energy rating applications. When the rating system is aiming at net zero energy policy this is widely used. In Norwegian energy rating system (Energimerking), two grades called energy grade and heating grade are displayed in the label, and the colour of the heating grade reflect the renewable energy proportion used in the building.

The carbon dioxide emission is also an important factor in building energy performance. Some rating systems such as RESNET HERS considers the net zero energy building as a net zero carbon foot print building. In UK SAP system, the energy efficiency rating and the environment (CO<sub>2</sub>) impact rating are displayed separately in the label. There various other factors considered in designing energy rating systems. The geographical location of the building is a main consideration as the climate conditions and weather depend on the location. When simulation models are used for energy performance calculations, a weather file needs to be fed which includes the information such as dry bulb temperature, daily temperature range, humidity, wind direction and wind speed. The physical characteristics of the building is important specially when asset rating is used. The building characteristics such as building components, building shape, orientation, shading, dimensions of the building, floor plan, construction type of the components, and thermal performance of the components are the main basic considerations. The consideration of natural ventilation is rarely seen in rating systems except PBE Edifica where the policy of Brazil is to promote passive houses [4].

However the ventilation and infiltration rates, HVAC systems, cooling and heating system efficiencies, cooling and heating degree days are heavily considered in the existing systems. Plug and process loads has a significant importance when the proportion of energy used for the heating and cooling purpose is lower. These energy requirements heavily depend on the occupant behaviour [5] and are always considered in operational rating. Due to the variation of the plug and process loads based on occupant behaviour some building energy modelling software

ignore the plug and process loading in the energy consumption calculation some systems like RESNET HERS use projected energy usage for plug and process loads.

Considering the importance of the energy rating system as a policy tool for the energy use reduction, there is a requirement for Sri Lanka to implement such system. Although it is possible to use the features involved in rating systems in countries which have similar climatic and economic situation, the reference values that are used for the scale is country specific and therefore a separate reference building stock or an absolute reference based on country policies should be developed. Also, if the rating systems is developed inappropriately outside its scope inadequacies can arise and the rating system for Sri Lanka should be designed considering all the related aspects

#### FIDIC International Infrastructure Conference – 2017

The 2017 FIDIC International Infrastructure Conference will take place in Jakarta, the capital of the Republic of Indonesia. Conference sessions will be starting from 1st to 3rd of October, and it includes some official social events. The Balai Sidang Jakarta Convention Center will serve as the official venue for the FIDIC 2017 Conference.

Please reserve for your participation early.

#### **FIDIC Conference registration fees\***

Categories	Early bird Until 30th of June	Standard From the 1st July 2017
FIDIC Member	1050	1200
Young Professional(YP)	900	1050

All fees are in US dollars.

\*For updates and more details please visit the Conference website: [www.fidic2017.org](http://www.fidic2017.org)

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#### **References**

- [1] J.R. Stein, A. Meier, Accuracy of home energy rating systems, *Energy*. 25 (2000) 339–354. doi:10.1016/S0360-5442(99)00072-9.
- [2] Sri Lanka Sustainable Energy Authority, *Code of practice for energy efficient buildings in Sri Lanka-2008*, (2009).
- [3] D. Leipziger, Comparing Building Energy Performance Measurement. A framework for international energy efficiency assessment systems, (2013) 39.
- [4] C. Morishita, M. Fossati, M. Ordenes, M.J. Sorgato, R. Versage, R. Lamberts, Regulation for energy efficiency labeling of residential buildings of Brazil, 2013. <http://www.buildingrating.org/document/regulation-energy-efficiency-labeling-residential-buildings-brazil>.
- [5] O.T. Masoso, L.J. Grobler, The dark side of occupants' behaviour on building energy use, *Energy and Buildings*. 42 (2010) 173–177. doi:10.1016/j.enbuild.2009.08.009.

#### ACESL Members representing in other committee or councils

Committee or Council	ACESL Represented by
Construction Industry Development Authority (CIDA)	
The National Advisory Council on Construction	Eng. Dr. Kamal Laksiri
The Board of Management (The Board)	Eng. Ranjan Gunawardena
The Committee on Rules and Regulations of Adjudication	Eng. Malith Mendis
The Credential Committee	Eng. K.S. Senanayake Eng. Prabhoda Jinasena
The Committee to Draft Criteria/Procedures/Rules & Regulations related to Technical Auditing	Eng. K. S. Senanayake
The Technical Standards, Rules & Regulations Committee	Eng. R. Rupasinghe
The Environmental & Public Health committee	Eng. Prabhoda Jinasena
<b>Chamber of Construction Industry, Sri Lanka</b>	
Council of CCI	Eng. K.S.. Senanayake