



SLGS NEWSLETTER

SRI LANKAN GEOTECHNICAL SOCIETY

A Member Society of the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)

Established in 1986

A Message from the Editor

2019 January: No 16

Dear Readers,

This edition of the newsletter presents details on the Annual General Meeting, Annual Conference, the Geoforum of the month of October and the visits to Road Development Authority and Irrigation Department to encourage the local engineers to present papers at the forthcoming ICGE Colombo 2020. Geotechnical toolbox is also presented.

Dr. (Mrs.) A.S. Ranathunga - Editor Newsletter
Email: ashanis@uom.lk

Contents

A Message from the Editor	1
AGM of SLGS 2018	1
SLGS Executive Committee 2018-2019	1
Some Glimpses of Annual Conference 2018	2
Visits by SLGS to RDA and Irrigation Department	3
Geoforum of Dr. Dilan Robert	3
Geotechnical Toolbox	4
Forthcoming Conferences	5
Forthcoming Events of SLGS	5

AGM of SLGS 2018

The Annual General Meeting (AGM) of SLGS was held on 18 September at Galle Face Hotel immediately after the Annual Conference. The newly elected executive committee is presented below.

SLGS Annual Conference 2018

The annual conference of SLGS was held successfully on 18 September 2018 at the Galle Face Hotel, Colombo with participation of over 170 engineers. Considering the current requirement of various approaches in foundations, the theme of the conference was chosen as "Modern Day Foundation Solutions". The event was jointly organized by SLGS, Denver Korea E & C Co. Ltd, EXT Co. Ltd. Korea and Korea Port Engineering Corporation (KORPEC).

SLGS Executive Committee 2018 - 2019



Prof. SAS Kulathilaka (President)	Eng. KLS Sahabandu (Vice President)	Eng. KS Senanayake (Past President)	Prof. BL Tennekoon (Past President)	Dr. JSM Fowze (Hony. Secretary)
--------------------------------------	--	--	--	------------------------------------



Eng. MSM Uzair (Assist. Secretary)	Eng. WAAW Bandara (Treasurer)	Eng. RM Rathnasiri (Assist. Treasurer)	Dr. NH Priyankara (Editor - Journal)	Dr. AS Ranathunga (Editor - Newsletter)
---------------------------------------	----------------------------------	---	---	--



Prof. HS Thilakasiri (Committee Member)	Dr. WA Karunawardena (Committee Member)	Dr. UP Nawagamuwa (Committee Member)	Dr. LIN De Silva (Committee Member)	Dr. SK Nawarathnarajah (Committee Member)
--	--	---	--	--

The topics presented at the conference are given below.

- **Compaction Grouting Techniques** by Eng. Park Tae Young - Director, Denver Korea E & C Co. Ltd.
- **Sea Side Construction** by Dr. Kim Gyang Suk - General Director, Denver Korea E & C Co. Ltd. and Dr. Kim Kyung Mo - General Director, KORPEC.
- **Point Foundation and Screw Anchor Piles** by Eng. Hon Byung Kwon - Vice President, EXT Co. Ltd., Korea and Eng. Lee Ki Tae, General Manager of Global Business Division, EXT Co. Ltd., Korea.
- **Basement Construction & Soil Improvements** by Dr. Mun Jae Sung, Senior Researcher, EXT Co. Ltd., Korea and Eng. Lee Ki Tae, General Manager of Global Business Division, EXT Co. Ltd., Korea.



SLGS Annual Conference

Modern Day Foundation Solutions

Some glimpses of SLGS Annual Conference 2018



Prof. S. A. S. Kuathilaka, The president of SLGS addressing the participants



Presentation on "Sea Side Construction" by Denver Korea E & C Co. Ltd. Korea and Port Engineering Cooperation (KORPEC).



Presentation on "Point Foundation and Screw Anchor Piles" by EXT Co. Ltd. Korea



Presentation on "Compaction Grouting Techniques" by Denver Korea E & C Co. Ltd.



Presentation on "Basement Construction & Soil Improvements" by EXT Co. Ltd., Korea.



Dr. J. S. M. Fowze, The Hony. Secretary of SLGS delivering the Vote of Thanks



Segment of the participants



Segment of the participants

Visits by SLGS to RDA and Irrigation Department

In order to encourage young local engineers to present papers at the forthcoming ICGE-Colombo-2020, SLGS initiated a programme last September. Here, a group of Senior Academics and Practitioners of SLGS EXco visits different institutions and organizations and have close discussions with young Engineers guiding them to prepare research papers based on projects they conduct. After the successful first visit to SLLRDC last September, the second and third visits were made to Road Development Authority (RDA) and the Irrigation Department on 8 and 15 November 2018 with participation of Prof Athula Kualthilaka, Dr Prasanna Rathnaweera, Dr Udeni Nawagamuwa and Dr. Ashani Ranathunga. Prof Kulathilaka outlined the concept and highlighted the importance of publishing their work. Dr. Ranathunga made a presentation on formulation of a conference paper and useful techniques to adhere when writing research papers. Few engineers from both institutions presented their current projects with geotechnical issues and discussions were done on possibility of developing research papers out of these projects. It was a very productive, collaborative session and SLGS will follow up until the research papers are completed.

Some glimpses of the event are depicted below.



At RDA Research Division, Ratmalana



At RDA Research Division, Ratmalana



At RDA Research Division, Ratmalana



At Irrigation Department, Colombo 07

Geoforum of Dr. Dilan Robert

Geoforum for the month of October 2018 was conducted by Dr. Dilan Robert, Senior Lecturer, RMIT University, Australia on 23rd October 2018 at NBRO Conference Room. Dr. Robert is also the Director of Research and Education - Center for Pavement Excellence Asia Pacific Ltd.

The title of the geoforum was "Safe Life Prediction of Buried Pipes". The lecture covered the importance of predicting the safe life of buried pipes, external and internal factors which influence the failure of pipes and the difficulties and challenges in predicting the failures of buried pipes. He further elaborated about a new theory on the accurate prediction of the remaining safe life of buried metal pipes by integrating material deterioration, soil mechanics, fracture mechanics and time-dependent reliability theory.



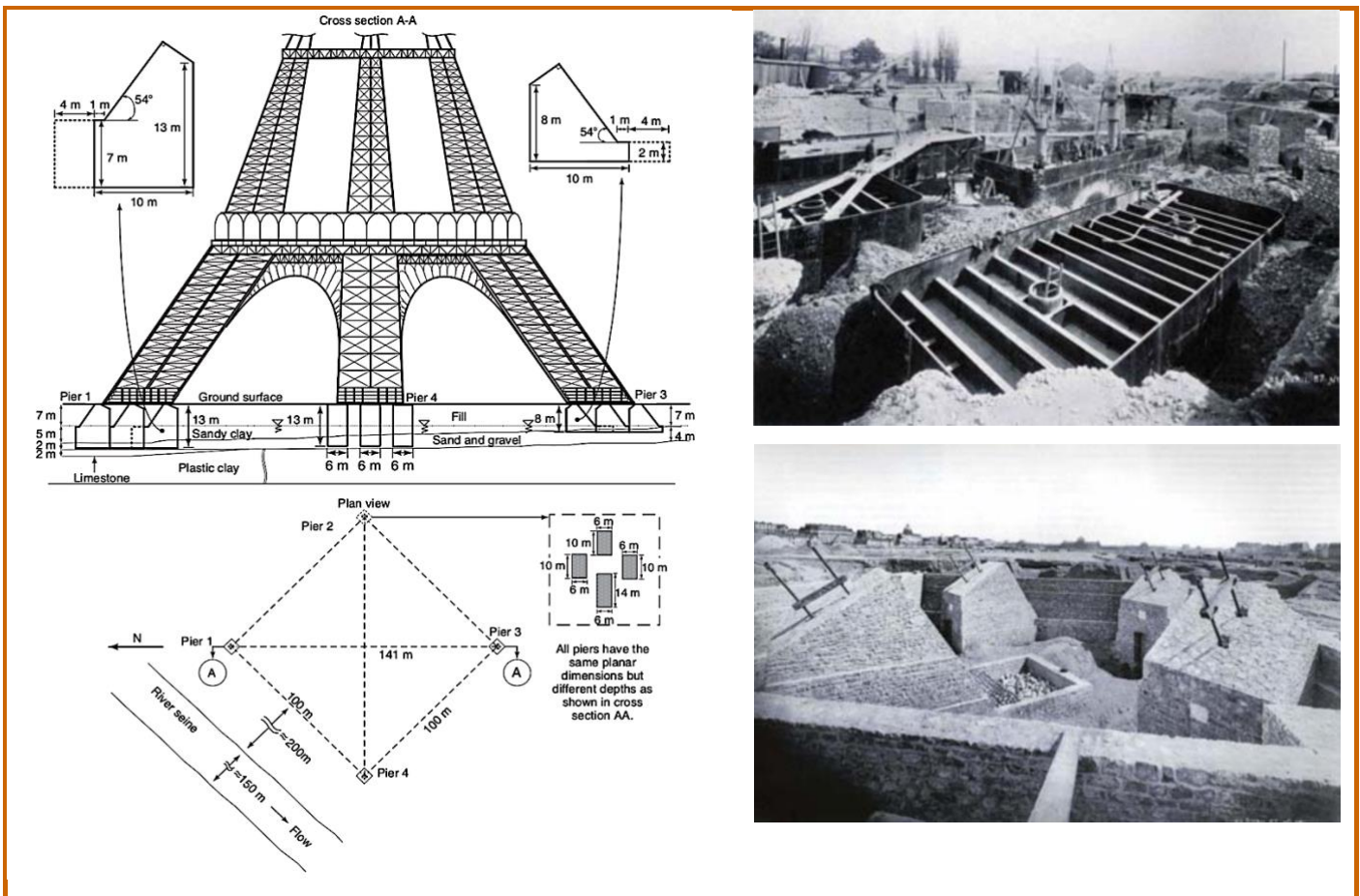
Geotechnical Toolbox

According to Karl Terzaghi, "there is no glory attached to the foundations, and that the sources of success or failures are hidden deep in the ground". For example, everyone knows the Eiffel Tower in Paris, but very few know about its foundation.

The foundation was built by excavating down to the water level about 7 m deep, but the soil at that depth was not strong enough to support the 100 MN weight of the Tower, so digging continued. Because of the water coming from the River Seine, the deepening of the excavation had to be done using pressurized caissons so that the air pressure could balance the water pressure and keep it out of the excavation.

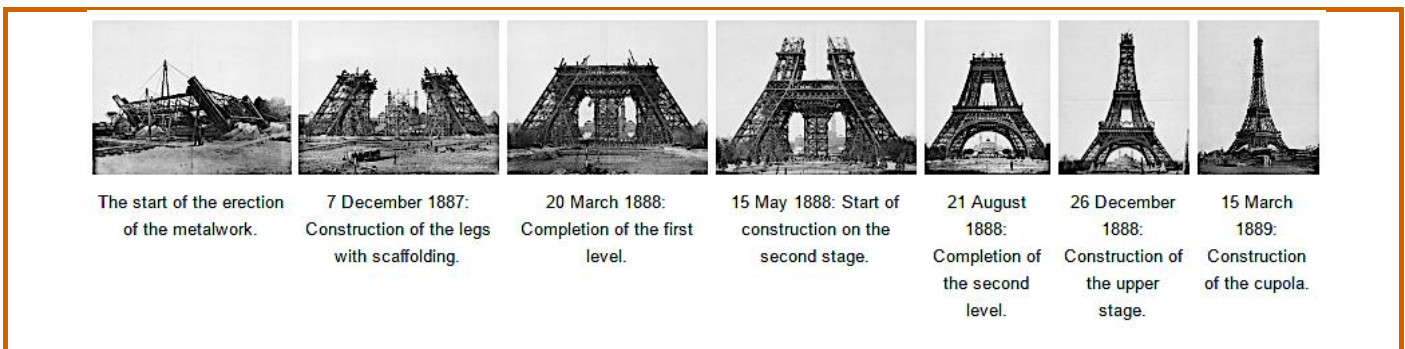
Workers got into these 14 × 6 × 15 m caissons (and worked literally under pressure until they reached a depth where the soil was strong enough to support the Tower (about 13 m on the side closest to the river and about 8 m on the side away from the river).

Extracted from Briaud, J. L. (2013). *Geotechnical engineering: unsaturated and saturated soils*. John Wiley & Sons. pp 8 & 9.



The Eiffel Tower Foundation Plan (left) and construction of foundation (right)

(Source: Briaud, J. L. (2013). *Geotechnical engineering: unsaturated and saturated soils*. John Wiley & Sons. pp 8 & 9.)



The Eiffel Tower construction step by step

(Source: Inspiration from the Eiffel Tower for project management. (2017, February 08). Retrieved from <https://www.orchestra-ppm.com/en/2017/02/02/seeking-inspiration-from-the-eiffel-tower-for-project-management/>)

Forthcoming Conferences

- ICGRE'19 - 4th International Conference on Geotechnical Research and Engineering, 7 to 9 April, 2019, Rome, Italy. <https://icgre.org>
- IS-GLASGOW 2019 - 7th International Symposium on Deformation Characteristics of Geomaterials, 26 to 28 June, 2019, Glasgow, UK. <https://www.is-glasgow2019.org.uk/>
- AP-UNSAT2019 - 7th Asia-Pacific Conference on Unsaturated Soils, 23 to 25 August, 2019, Nagoya, Japan. <https://www.jiban.or.jp/e/activities/events/20190823-25-seventh-asia-pacific-conference-on-unsaturated-soils/>
- CGE 2019 - Third International Conference "Challenges in Geotechnical Engineering", 10 to 13 September, 2019, Zielona Gora, Poland. <https://www.cgeconf.com/>
- 12th ARC of IAEG - 12th Asian Regional Conference of International Association of Engineering Geology and the Environment, 23 to 27 September, 2019, Jeju Island, South Korea. <http://www.iaeqarc12.org>

Forthcoming Events of SLGS

ICGE - Colombo - 2020



3rd International Conference in Geotechnical Engineering
10 - 11 August 2020
@ Cinnamon Grand, Colombo, Sri Lanka

The conference website has been launched and can be accessed through <http://icgecolombo.org/2020/>. Now, the abstracts can be submitted through the conference website and closing date for abstract submission is **25 March, 2019**.

Keynote Speakers

- Prof. Charles W.W. Ng* - Unsaturated Soils and Slope Stability.
Distinguished Prof Buddhima Indraratna - Ground Improvement for Rail and Road .
Prof. Krishna Reddy - Modeling Coupled Dynamic Processes in Landfills: Holistic Long-Term Performance Management to Improve Sustainability .
Dr. Brian Simpson - Deep Excavations and Tunnelling.
Dr. Chris Haberfield - Piled Foundations - Soil Structure Interaction.

Call for papers for SLGS Journal

SLGS wishes to call for full papers for its Annual Journal. Number of pages per paper is limited to 12. All the papers will be subjected to double blind review by two referees. Selected papers will be published in the SLGS Journal (hard copy version) and will be made available online through the SLGS website. Please send your papers to the following email address.

Editor Journal: nadee.jpriyankara@yahoo.com

SLGS and ISSMGE Membership Fees

SLGS members are kindly requested to pay the membership arrears at your earliest. A notice indicating due fees is attached.

Please inform any changes in the contact details.

Membership Admission Fee Rs. 200/=

Annual Membership Fee Rs. 700/=

ISSMGE Fee Rs. 1500/=

The SLGS Newsletter comes to you in volumes of four fascicles issued in January, March, July and October each year. If you prefer to receive the newsletter by email, please send your email address to the editor, newsletter.

Address for Correspondence:

Sri Lankan Geotechnical Society

C/o National Building Research Organisation

No. 99/1, Jawatta Road, Colombo 5, SRI LANKA

Tel:

President: +94-77-6623411 Hon Secretary: +94-11-2668842

Treasurer: +94-11-4309494 Editor: +94-11-2640362

Note: The views expressed by authors are not necessarily the views of SLGS.

Important Dates for ICGE-Colombo-2020

Acceptance of abstracts - **25 March 2019**

Notification of the acceptance of abstracts - **24 June 2019**

Receipt of the full paper for reviewing - **14 Oct 2019**

Notification of the acceptance of full paper - **13 Jan 2020**

Receipt of the final camera ready papers - **10 Feb 2020**

**PRINTED MATTER
SLGS**