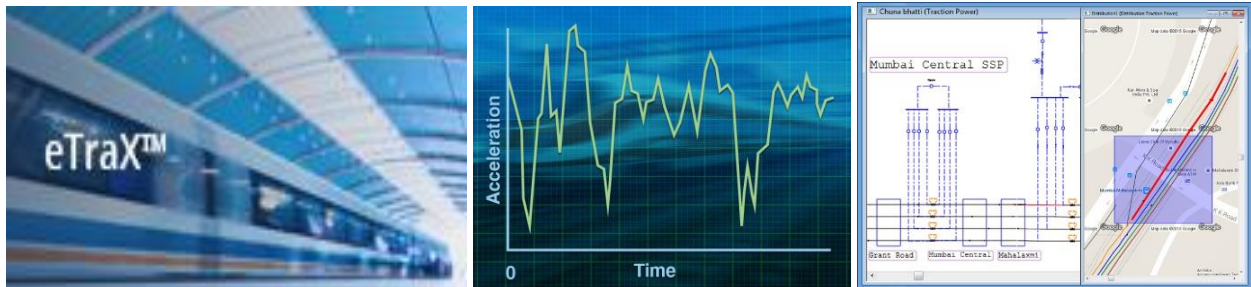




## ETAP – eTraX Traction Power Solution

15 – 17, July 2019 at Orchard Hotel Singapore

This is a practical 3 days session to learn about latest features and capabilities of eTraX™ solution for analysis and operation of rail traction systems. Case study presentation on the application of eTraX software for modeling and analysis of low and medium voltage AC & C rail power systems using advanced geospatial asset information.



### Who Should Attend?

This seminar benefits railway electric engineers, consultants, and owners-operators interested to learn about the latest integrated traction power system software for modeling, simulation, prediction and optimization of rail infrastructure.

Location: Orchard Hotel <http://www.orchardhotel.com.sg> (Tentatively)

All travel and hotel arrangements are the responsibility of the attendee.

### Course Fee:

US Dollars 2,080.00 / per person

- 1/. Fee does not include lodging, transportation and Singapore Government Tax.
- 2/. Fee include light breakfast snacks, tea-breaks & lunch (15-17, July 2019).
- 3/. Course is limited to 15 participants. So please register early!
- 4/. Payment in full must be received Three weeks prior to start date of course.

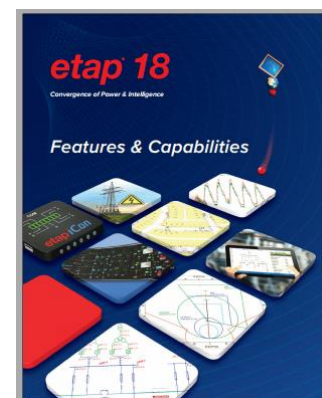
Date: 15 - 17, July 2019

Time: 09:00 a.m. to 17.00 p.m. daily

### Information / Registration:

#### **Cahaya Jaya Services**

37 Jalan Pemimpin  
#07-07 MAPEX Building, Singapore 577177  
Tel: (65) 64814106 Fax: (65) 64814609  
Email: [cahayaj6@singnet.com.sg](mailto:cahayaj6@singnet.com.sg); [robin@cjaya.com](mailto:robin@cjaya.com)  
Website: [www.cjaya.com](http://www.cjaya.com)





# ETAP – eTraX Traction Power Solution

## 3-Day Workshop Agenda

<b>Topics</b>	<b>Morning Session</b> 09:00 A.M. – 12:30 P.M.	<b>Afternoon Session</b> 13:30 P.M. – 17:00 P.M.
Day 1	<ul style="list-style-type: none"> <li>➤ eTraX Overview</li> <li>➤ Traction System Overview</li> <li>➤ Geospatial &amp; Schematic Modeling</li> </ul>	<ul style="list-style-type: none"> <li>➤ Rail Infrastructure</li> <li>➤ Train Timetable &amp; Consist Configuration</li> </ul>
Day 2	<ul style="list-style-type: none"> <li>➤ Train Performance Calculation</li> </ul>	<ul style="list-style-type: none"> <li>➤ Unified Power Flow &amp; Voltage Drop Flow</li> </ul>
Day 3	<ul style="list-style-type: none"> <li>➤ Traction Substation Fault Analysis</li> <li>➤ Traction Substation Ground Grid Design</li> </ul>	<ul style="list-style-type: none"> <li>➤ Substation Transformer Sizing</li> <li>➤ Additional Topics &amp; Review</li> </ul>



## Registration Form

### ETAP - eTraX Traction Power Solution

15 – 17, July 2019

Orchard Hotel

US Dollars 2,080.00 / per person

Please complete a registration form with payment to Cahaya Jaya Services to confirm registration. Reservations are taken on a first come, first serve basis. Submitting this form electronically does NOT confirm your reservation. Contact robin@cjaya.com if you have any questions.

Name \_\_\_\_\_  
Position \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_  
E-mail \_\_\_\_\_

**Payment:**

Payment methods available:

- Cheques should be crossed and made payable to 'Cahaya Jaya Services' (for S'pore attendee)
- via telegraphic transfer (for oversea attendee)
- Visa, MasterCard (add on 4% administration fee)

**Remark:**

1. A confirmation letter will be sent to you upon receipt of the enrollment form.
2. Any cancellation must be in writing and received by 14 days prior to the course date. Otherwise the full fee will be chargeable. Cahaya Jaya Services reserves the right to reschedule, change venue or cancel the course due to unforeseen circumstances.
3. Course fee does not include lodging, transportation and taxes.

Note: For group registration, please photocopy this form for submission.



By registering for the Cahaya Jaya Services ("ETAP") seminar, attending the seminar or making any use whatsoever of the material provided by Cahaya Jaya Services the participant or user of material acknowledges that the information and materials presented in the course of the seminar are for information purposes only. Examples and data used in the seminar as just that, examples, that are being used to help the participants in gaining a knowledge of product, materials and services available to the participants. Otherwise, ETAP makes no representation or warranties of any kind, express or implied, as to the information, content, materials, included. All title and intellectual property rights remain those of the respective content owner and any intellectual property protected by laws and treaties, without grant or rights to use, and not to copy or print.

In no event shall ETAP, its subsidiaries or affiliates, or their respective officers, directors, employees, representatives or agents (collectively called "ETAP") be liable for special, incidental, consequential, punitive, indirect, or other special damages, including but not limited to, loss of data, use, or profits, however caused, whether for breach of contract, negligence, or otherwise.