

CLP Internship Programme 2022

Project Focus – Electrical Engineering (Summer)

<b>Project Code</b>	E1_SUM_01	
<b>Project Detail</b>	<b>Internship Category</b>	Summer
	<b>Internship Period</b>	Jun 2022 to Aug 2022
	<b>Preferred Discipline</b>	<b>First Preference:</b> Electrical Engineering <b>Other Preference:</b> Nil
	<b>Project Name</b>	Study & Enhancement of Emergency Cases Reporting System
	<b>Business Objective(s)</b>	<ul style="list-style-type: none"> <li>• To review the overall process of emergency cases in Emergency Services.</li> <li>• To improve and develop record and reporting system, which can be applicable to our staff in timely handling emergencies.</li> </ul>
	<b>Project Description</b>	<ul style="list-style-type: none"> <li>• Emergency Services team seeks to uphold the restoration processes with numerous enhancement initiatives in order to meet all service pledges.</li> <li>• This project aims to offer a platform for the intern to conduct the technical study on fault handling and repair processes.</li> <li>• Candidate is needed to develop a presentable reporting model for routine control and monitoring.</li> </ul>
<b>Required Skills</b>	<ul style="list-style-type: none"> <li>• Sound power system and related equipment knowledge</li> <li>• Comprehension, analytical and communication abilities with relevant parties involved throughout the project</li> <li>• Creative and flexible in design thinking</li> <li>• Proficient Microsoft Office skills</li> </ul>	

## CLP Internship Programme 2022

## Project Focus – Electrical Engineering (Summer)

<b>Project Code</b>	E1_SUM_02	
<b>Project Detail</b>	<b>Internship Category</b>	Summer
	<b>Internship Period</b>	Jun 2022 to Aug 2022
	<b>Preferred Discipline</b>	<b>First Preference:</b> Electrical Engineering <b>Other Preference:</b> Energy Engineering
	<b>Project Name</b>	Demand side management in smart grid
	<b>Business Objective(s)</b>	<ul style="list-style-type: none"> <li>• An overall review on drivers, benefits, approaches and current state for demand side management in globally.</li> <li>• Benchmark global utilities smart grid practices to resolve distribution network constraint.</li> </ul>
	<b>Project Description</b>	<ul style="list-style-type: none"> <li>• To conduct worldwide market research on new technology and its applications related to demand side management.</li> <li>• To benchmark global utilities practices on smart grid initiative on demand management.</li> <li>• To formulate options and conduct feasible study for demand response management in Hong Kong</li> <li>• To support the study on localized demand response projects and stakeholders management for proof-of-concept (PoC).</li> <li>• To assist the cost-benefit evaluation on the PoC projects for full scale implementation.</li> <li>• To conduct data analytics on system load forecast and its correlation with weather forecasts and records.</li> </ul>
<b>Required Skills</b>	<ul style="list-style-type: none"> <li>• Basic knowledge in electrical engineering with sound knowledge of power systems</li> <li>• Proactive, creative, self-motivated, well-organised, detail-minded, and responsible individual</li> <li>• Excellent team player, outgoing and eager to learn</li> <li>• Excellent command of both written and spoken Chinese and English</li> <li>• Proficiency in MS Word, Excel, PowerPoint &amp; Word Processing</li> <li>• Knowledge of Matlab or other computerized simulation tool is an advantage</li> </ul>	

CLP Internship Programme 2022

Project Focus – Electrical Engineering (Summer)

<b>Project Code</b>	E1_SUM_03	
<b>Project Detail</b>	<b>Internship Category</b>	Summer
	<b>Internship Period</b>	Jun 2022 to Aug 2022
	<b>Preferred Discipline</b>	<b>First Preference:</b> Electrical Engineering <b>Other Preference:</b> Electronic Engineering
	<b>Project Name</b>	Optimizing Transmission Projects & Outages' planning
	<b>Business Objective(s)</b>	<ul style="list-style-type: none"> <li>• To improve systems for outage scheduling to optimize manpower arrangement, system availability and ensure statutory compliance.</li> <li>• To improve the current platforms for the planning and reporting of the annual Transmission projects and associated equipment under the projects.</li> </ul>
<b>Project Description</b>	<ul style="list-style-type: none"> <li>• The yearly outage plan within Transmission is prepared at the start of each year. The preparation of the outage plan highly depends on the experiences of the planner regarding system loading, statutory requirements &amp; manpower available in each work team, etc. In addition, multiple parties may request to work on the same equipment over different time, resulting in repeated outage and is not desirable in view of system availability.</li> <li>• A user-friendly platform to help the planner to prioritize and arrange the numerous outages is desired. The system should be able to group all related outages to avoid repeated outages while optimizing the manpower resources utilization. Propose a suitable outage schedule after checking the existing outage plan and other limitation. The process automation system can help planner to manage the certificate of statutory requirement work which included due date reminder, manage the soft copy of certificate etc.</li> <li>• On the first working day of each month, a target achievement report is generated using Excel and submitted to the person in charge in order to monitor the work order completion status of line branch in TD for the previous month. Existing target achievement report generated from SAP do not have enough report filter to fit TD's requirement. In order to have better interpretation of the target achievement data, a Power Automate or Excel program able to help planner to generate target achievement report and create pie chart representation by simply clicking</li> </ul>	

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	<b>Required Skills</b>	<ul style="list-style-type: none"><li>• Using Office 365 related code libraries to simplify the writing of code</li><li>• Detail-orientated Mindset</li><li>• Communication and interpersonal skills</li></ul>

## CLP Internship Programme 2022

## Project Focus – Electrical Engineering (Summer)

<b>Project Code</b>	E1_SUM_04	
<b>Project Detail</b>	<b>Internship Category</b>	Summer
	<b>Internship Period</b>	Jul 2022 to Aug 2022
	<b>Preferred Discipline</b>	<b>First Preference:</b> Electrical Engineering <b>Other Preference:</b> Nil
	<b>Project Name</b>	Visualization of Plant Requirements for Transmission Substation Design
	<b>Business Objective(s)</b>	<ul style="list-style-type: none"> <li>To uplift communicate with and help developers understand CLP's requirements of plant equipment for transmission substation design and to reduce iterative works by developers.</li> <li>To enhance the company's image and customers' satisfaction.</li> </ul>
	<b>Project Description</b>	<p>Deliverables:</p> <ul style="list-style-type: none"> <li>Devise simplified drawing sketches of plant equipment to visualize the requirements of different plant equipment for delivery, installation, testing &amp; commissioning and operation &amp; maintenance, etc.;</li> <li>Enrich plant equipment design information as supplement to help developers understand our standard requirements in the Code of Practice.</li> </ul> <p>Learning:</p> <ul style="list-style-type: none"> <li>Acquire knowledge in transmission substation design and plant equipment;</li> <li>Gain exposure to project management, design thinking and analytical thinking;</li> <li>Visit transmission substations.</li> </ul>
<b>Required Skills</b>	<ul style="list-style-type: none"> <li>Proficiency in spoken and written Chinese and English;</li> <li>Being self-motivated, customer-oriented, a good team player, analytical, and able to work under pressure and tight schedule;</li> <li>Strong sense of responsibility with good interpersonal and communication skills;</li> <li>Proficiency in Microsoft Office, Microsoft Visio and AutoCAD</li> </ul>	

CLP Internship Programme 2022

Project Focus – Electrical Engineering (Summer)

<b>Project Code</b>	E1_SUM_05	
<b>Project Detail</b>	<b>Internship Category</b>	Summer
	<b>Internship Period</b>	Jun 2022 to Aug 2022
	<b>Preferred Discipline</b>	<b>First Preference:</b> Electrical <b>Other Preference:</b> Electronic/ Information Technology
	<b>Project Name</b>	Automated Vehicle Utilization and Permit Monitoring System
	<b>Business Objective(s)</b>	<ul style="list-style-type: none"> <li>To optimize the existing process which involves manual, repetitive works and minimize prone to human errors especially for closed area permit monitoring for Transmission Department.</li> </ul>
	<b>Project Description</b>	<ul style="list-style-type: none"> <li>The Closed Area Permit application is reviewed in monthly basis to check any of the vehicle's permit would be expired in coming two months. The valid Closed Area Permit of vehicles is essential to support operation but it relies on manual update and checking in excel file.</li> <li>The vehicle mileage report for department is compiled every 4 months, with various input sources. The process involves repetitive checking and verifying tasks.</li> <li>A user friendly platform which reduce human error and manual data entry by automatically collecting, uploading or syncing data into the record for generating report, providing notification in advance for Closed Area Permit renewal would definitely desired to users, with potential productivity gain and essential to daily operation.</li> </ul>
	<b>Required Skills</b>	<ul style="list-style-type: none"> <li>Microsoft Power Platform( Power BI, Power Apps, Power Automate)</li> <li>Blue prism would be an advantage</li> <li>Communication and interpersonal skills</li> </ul>

CLP Internship Programme 2022

Project Focus – Electrical Engineering (Summer)

<b>Project Code</b>	E1_SUM_06	
<b>Project Detail</b>	<b>Internship Category</b>	Summer
	<b>Internship Period</b>	Jun 2022 to Aug 2022
	<b>Preferred Discipline</b>	Electrical Engineering
	<b>Project Name</b>	Improvement on distribution Low-voltage network
	<b>Business Objective(s)</b>	<ul style="list-style-type: none"> <li>To improve system reliability and keep up customer service pledge by identifying system weakness and improvement opportunities of distribution low-voltage network</li> </ul>
	<b>Project Description</b>	<ul style="list-style-type: none"> <li>Distribution low-voltage network is a crucial stage for the supply reliability of the power system, as it is connected directly to customers, and is generally configured as radial fed network.</li> <li>The project aims to realize the established strategic project framework, review and expedite its implementation, and monitor progress of system improvement projects.</li> </ul>
<b>Required Skills</b>	<ul style="list-style-type: none"> <li>Nil</li> </ul>	

CLP Internship Programme 2022

Project Focus – Electrical Engineering (Summer)

<b>Project Code</b>	E1_SUM_07	
<b>Project Detail</b>	<b>Internship Category</b>	Summer
	<b>Internship Period</b>	Jun 2022 to Aug 2022
	<b>Preferred Discipline</b>	Nil
	<b>Project Name</b>	Distribution Construction Project
	<b>Business Objective(s)</b>	<ul style="list-style-type: none"> <li>To participate construction branch activities such as installation and commission of distribution cable, plant, OHL and protection system in the power network in order to nurture a young talent pool.</li> </ul>
	<b>Project Description</b>	<ul style="list-style-type: none"> <li>Develop understanding on Construction Branch activities such as cable laying, plant erection, overhead line erection and commissioning of installed power plant and equipment.</li> </ul>
<b>Required Skills</b>	<ul style="list-style-type: none"> <li>Good communication and analytical skills</li> <li>Fluent in both Cantonese and English.</li> <li>Good in MS Office applications</li> <li>Good in Power BI would be advantage.</li> </ul>	