

<b>Project Code</b>	ME_SAND_01	
<b>Project Details</b>	<b>Internship Period</b>	July 2024 to June 2025
	<b>Preferred Disciplines</b>	<b>First Preference:</b> <ul style="list-style-type: none"> <li>• Building Services Engineering</li> </ul> <b>Second Preference:</b> <ul style="list-style-type: none"> <li>• Facilities Management</li> </ul>
	<b>Project Name</b>	Kai Tak Office Relocation
	<b>Business Objective(s)</b>	<ul style="list-style-type: none"> <li>• First hand involvement of building services systems coordination of new development project</li> <li>• Coordination of Fitting out works</li> <li>• Testing and Commissioning of various building services systems</li> <li>• Live building operation and defect rectification</li> </ul>
	<b>Project Description</b>	<p>In view of the development of Kai Tak Office, Facilities Management is required to step into the coordination of fitting out works, building services system coordination to suit the operational needs, while the systems are required to be tested and commissioned prior to moving in.</p> <p>Staff is expected to be working in the new office once the renovation is completed, on-going building operation involving building services system monitoring, trouble-shooting, defects rectification, etc.</p> <p>It offers an opportunity for the candidate to participate in the actual fitting out project and office relocation project as well as experience in operating a live building.</p>
	<b>Required Skills</b>	<ul style="list-style-type: none"> <li>• Understanding of major Building Services systems and BMS control mechanism</li> <li>• Knowledge in AutoCad</li> </ul>

<b>Project Code</b>	ME_SAND_02	
<b>Project Details</b>	<b>Internship Period</b>	July 2024 to June 2025
	<b>Preferred Disciplines</b>	<b>First Preference:</b> <ul style="list-style-type: none"> <li>• Mechanical Engineering</li> </ul> <b>Second Preference:</b> <ul style="list-style-type: none"> <li>• Electrical Engineering</li> </ul>
	<b>Project Name</b>	FGD plant performance study and improvement
	<b>Business Objective(s)</b>	<ul style="list-style-type: none"> <li>• Enhance FGD availability and reliability</li> <li>• Improve FGD plant performance</li> <li>• Promote safety</li> </ul>
	<b>Project Description</b>	<p>The flue gas desulphurization (FGD) plant shall treat flue gas from four power boilers (Unit B1 to Unit B4) which burn hard coal and produce 4x680 megawatts. The FGD plant operates with the wet scrubbing process on the basis of limestone, by-product will be commercial grade gypsum.</p> <p>FGD team plans to develop a visualization platform for plant performance monitoring. The goal is to create a user-friendly and comprehensive platform that allows maintenance team to monitor and analysis plant performance in real time, set key performance indicators (KPIs) for different sub-system within the plant, and receive alerts if performance fails below the set KPIs.</p>
	<b>Required Skills</b>	<ul style="list-style-type: none"> <li>• Project planning and implementation</li> <li>• Excellent communication skills</li> <li>• Good understanding of data visualization process</li> <li>• Good understanding of process engineering</li> <li>• Outgoing personality</li> </ul>

CLP Internship Programme 2024

Project Outline: Sandwich – Mechanical Engineering

<b>Project Code</b>	ME_SAND_03	
<b>Project Details</b>	<b>Internship Period</b>	June 2024 to May 2025
	<b>Preferred Disciplines</b>	Mechanical Engineering
	<b>Project Name</b>	Development of Condition Monitoring in Coal-Fired Power Plant
	<b>Business Objective(s)</b>	The project is to review and develop the online condition monitoring modules, establish alert mechanism for generation units in Castle Peak Power Station.
	<b>Project Description</b>	<p>Condition monitoring is critical to maintain the reliability and performance of the power generating units. Online sensors have been installed to reflect the running condition of the plant equipment while interpretation and analysis are required to generate meaningful alerts and actions.</p> <p>The intern will learn the processes in coal-fired power plant. Analysis on parameters correlation and physical phenomenon are required during modules development and tuning.</p>
<b>Required Skills</b>	<ul style="list-style-type: none"> <li>• Experience in using EtaPRO would be in advantage</li> </ul>	

<b>Project Code</b>	ME_SAND_04	
<b>Project Details</b>	<b>Internship Period</b>	July 2024 to June 2025
	<b>Preferred Disciplines</b>	<b>First Preference:</b> <ul style="list-style-type: none"> <li>• Mechanical Engineering</li> </ul> <b>Second Preference:</b> <ul style="list-style-type: none"> <li>• Industrial Engineering</li> <li>• Technology Research</li> </ul>
	<b>Project Name</b>	3D Printing Use Case Development in Power Generation
	<b>Business Objective(s)</b>	<p>3D printing is one of the innovation initiatives for utilizing manpower to machine the simple part, minimizing the time to produce part, and providing accurate dimension of product. Also, there are numerous obsoleted spare parts such as actuator limit switch and metal gear that cannot be purchased from OEM or market. To continue enhancing the efficiency of workshop services and power generation's integrity, it is going to procure 3D printing machines and scanners to establish a one-stop-shop service.</p> <p>The intern will subsequently support other workshop activities and initiatives for enhancing the productivity</p> <p>The intern will be able to understand the overview of power stations and also the use of new technology such as SLA and FDM, various aspects of management skills such as contractor/consultant management, stakeholder management, communication and presentation skills in management reporting.</p>
	<b>Project Description</b>	<ul style="list-style-type: none"> <li>• Support the setup of 3D Printing Technology in Power Stations with Stereo lithography Appearance (SLA) and Fused Deposition Modelling (FDM) printers and scanner</li> <li>• Support the exploration of the use case of 3D Printing in Power Stations</li> </ul>
	<b>Required Skills</b>	<ul style="list-style-type: none"> <li>• Basic Engineering Knowledge on Mechanical / Electrical System Installation which can facilitate him/her to explore the possible use cases</li> <li>• Basic Project Management Concept</li> <li>• Analytical mindset</li> <li>• Computer skills (e.g. Word, Excel, Power Point)</li> <li>• Knowledge of AutoCAD, 3D Printing technology would be advantageous</li> </ul>

CLP Internship Programme 2024

Project Outline: Sandwich – Mechanical Engineering

<b>Project Code</b>	ME_SAND_05	
<b>Project Details</b>	<b>Internship Period</b>	June 2024 to May 2025
	<b>Preferred Disciplines</b>	<b>First Preference:</b> <ul style="list-style-type: none"> <li>• Chemical Engineering</li> </ul> <b>Second Preference:</b> <ul style="list-style-type: none"> <li>• Mechanical Engineering</li> </ul>
	<b>Project Name</b>	FGD Wastewater Treatment Plant Enhancement
	<b>Business Objective(s)</b>	<p>Wastewater treatment is an important part of power plant to reduce environmental pollution and ensure regulatory compliance. In Castle Peak Power Station, a wastewater treatment plant is in place to treat wastewater from the flue gas desulphurisation system.</p> <p>The plant has been modified recently to enhance reliability and performance. This internship will support the system commissioning and operation during the handover period and identify defects and areas for further enhancement.</p>
	<b>Project Description</b>	<p>The job duties will include:</p> <ul style="list-style-type: none"> <li>• Identifying defects and keeping track of the rectification progress</li> <li>• Consolidating and reviewing handover documents</li> <li>• Identification and prioritisation of FGD WWT enhancement work</li> <li>• Drafting project execution plan and tender documents for FGD WWT enhancement work</li> </ul>
	<b>Required Skills</b>	<ul style="list-style-type: none"> <li>• Good communication and writing skills</li> <li>• Good analytical and problem solving skills</li> <li>• Agile and willing to take on new challenges as required</li> </ul>

<b>Project Code</b>	ME_SAND_06	
<b>Project Details</b>	<b>Internship Period</b>	June 2024 to May 2025
	<b>Preferred Disciplines</b>	<b>First Preference:</b> <ul style="list-style-type: none"> <li>• Mechanical Engineering</li> </ul> <b>Second Preference:</b> <ul style="list-style-type: none"> <li>• Energy Engineering</li> </ul>
	<b>Project Name</b>	Condition Monitoring and Analytics Enhancement in Black Point Power Station
	<b>Business Objective(s)</b>	<ul style="list-style-type: none"> <li>• To enhance condition monitoring and data analytics in BPPS and WE Station so as to optimize the asset performance</li> <li>• To promote key performance indicators monitoring, and thus data-driven decisions for the organization</li> </ul>
	<b>Project Description</b>	<p>To meet the stringent requirements of reliability, availability and efficiency during the time of high gas utilization, the current practice of condition monitoring in BPPS and WE station are subject to improvement.</p> <p>The content of this project includes :</p> <ul style="list-style-type: none"> <li>• Development of Advanced Pattern Recognition (APR) models in EtaPRO for asset condition monitoring and anomaly detection on the new CCGT unit, D2</li> <li>• Modification of those models of the existing CCGT unit</li> <li>• Tuning of the VirtualPlant thermodynamic models in EtaPRO for process simulation, aiming to accurately predict the target performance and forecast plant capacity and heat rate</li> <li>• Building interfaces for WE station phase II for monitoring its real-time performance</li> <li>• Building dashboards to monitor the KPIs of the power stations</li> </ul>
	<b>Required Skills</b>	<ul style="list-style-type: none"> <li>• Basic understanding of thermodynamics of power generation plant</li> <li>• Basic statistical knowledge</li> <li>• Strong analytical skills</li> <li>• Good knowledge in PowerBI and PowerApps</li> </ul>