

CLP Internship Programme 2022

Project Focus – Mechanical Engineering (12-month)

Project Code	ME_SAND_01	
Project Detail	Internship Category	Sandwich
	Internship Period	Jun 2022 to May 2023
	Preferred Discipline	First Preference: Mechanical Engineering Other Preference: Mechanical Engineering
	Project Name	CCGT D2 - Mega CCGT Project: Project Quality Management
	Business Objective(s)	<ul style="list-style-type: none"> • To support the effective implementation of project quality requirements for manufacturing and construction to meet with CLP's expectations for a timely, safe, efficient and quality compliant project delivery • To achieve the Project Goal and meet the requirements of the Project Quality Objectives, the assignee will ensure the specific quality requirements are communicated and complied by Contractors
	Project Description	<ul style="list-style-type: none"> • CLP is committed to the continual improvement of high standards of Quality on all Projects.. The construction of D2 CCGT is designed for the attainment of required quality level to meet the business needs.The successful candidate will joint the CCGT D2 Quality Branch to ensure the Project Quality Plan and requirements are applied throughout the project phases until handover by • Providing support in developing and implementing the field inspection and test plans (ITP), project specific procedures and/or work instructions • Compiling relevant quality statistics/KPI's and identifying quality shortfalls and recommending remedial measures • Participating inspection during construction for ensuring the quality requirements identified in the Quality Control Plan are fulfilled.
Required Skills	<ul style="list-style-type: none"> • Able to comprehend technical drawings • Good at numerical • Excellent communication skills • Able to multi-task as priorities change • Able to use initiative and work independently 	

CLP Internship Programme 2022

Project Focus – Mechanical Engineering (12-month)

Project Code	ME_SAND_02	
Project Detail	Internship Category	Sandwich
	Internship Period	Jun 2022 to Aug 2023
	Preferred Discipline	First Preference: Mechanical Engineering Other Preference: Electrical, Electronic Engineering or IT
	Project Name	Power Plant Generation Efficiency & Reliability Monitoring
	Business Objective(s)	<ul style="list-style-type: none"> • To monitor electricity generation power plant condition and performance, improve generating unit reliability & availability • To review the existing processes and provide improvement suggestion • To develop effective tools to streamline and improve the upstream data processing
	Project Description	<ul style="list-style-type: none"> • The candidate will have a comprehensive on the job training on: • EtaPRO - Asset Performance and Condition Monitoring System, build up model and monitor power station to improve asset performance, recognize anomalies. sooner, decrease unplanned downtime, and manage data effectively • Analyze generation statistic data to propose recommendation to manage unit efficiency and availability in order to meet our station Key Performance Index target • Generation Efficiency Monitoring System (GEMS), which monitor the electricity generation & fuel consumption • Generation Statistics & Availability Reporting (GSAR) System, which monitor generation unit reliability and availability measures
Required Skills	<ul style="list-style-type: none"> • Modeling and programming skill • Excellent in Excel VBA • Advance Excel User • Analytical & critical thinking • Sound technical and engineering skill • Good computing knowledge 	

CLP Internship Programme 2022

Project Focus – Mechanical Engineering (12-month)

Project Code	ME_SAND_03	
Project Detail	Internship Category	Sandwich
	Internship Period	Jun 2022 to May 2023
	Preferred Discipline	First Preference: Mechanical Engineering Other Preference: Nil
	Project Name	Turbine condition monitoring and inspection scheduling optimization
	Business Objective(s)	<ul style="list-style-type: none"> To optimize the recording and monitoring of the condition and operation history of the turbine and related components To develop effective tools to streamline the scheduling of turbine inspections
	Project Description	<ul style="list-style-type: none"> To maintain high efficiency and reliability of the generation units, routine inspections are carried out at certain intervals, according to the condition of different components of the unit and the operation status. The inspection scheduling consists of unit condition monitoring, estimation of future unit operation mode, coordination with various teams, etc. The candidate is expected to understand the inspection criteria of different components of the units and subsequently streamline the process of recording the operation and inspection history of different components Effective tools should be developed for estimating the inspection interval based on the recorded data and estimations, with agile response to changes in operation regime Application of innovative measures in unit condition monitoring and outage planning would be appreciated.
Required Skills	<ul style="list-style-type: none"> Excellent in MS excel (knowledge in VBA will be an advantage) Strong analytical skill Strong statistical knowledge Good communication skill Able to work with limited supervision 	

CLP Internship Programme 2022

Project Focus – Mechanical Engineering (12-month)

Project Code	ME_SAND_04	
Project Detail	Internship Category	Sandwich
	Internship Period	Jun 2022 to May 2023
	Preferred Discipline	First Preference: Mechanical Engineering Other Preference: Civil Engineering
	Project Name	Study on Project Planning of Hong Kong Off Shore Wind Farm Project
	Business Objective(s)	<ul style="list-style-type: none"> Assist to generate an achievable project programme to ensure Hong Kong Off Shore Wind Farm Project could be commissioned according to target schedule under special environment and governance in Hong Kong and perform schedule risk analysis (SRA). Different risk mitigation measures and contingencies are considered in project planning stage
	Project Description	<ul style="list-style-type: none"> A Hong Kong Off Shore Wind Farm with off-shore substation will be developed for generation of RE with electrical energy export through HV submarine cables to connect to the power grid at the landing point. The intern is expected to study and compare similar wind farm projects in foreign countries including Mainland China so as to identify any critical factors and constraints in project planning by considering the special environment and governance in Hong Kong The intern, based on his/her mechanical engineering/civil engineering background, should be able to input and comment on any risk mitigation measures, contingencies, alternatives and other critical successful factors in the project development and planning stage The intern is expected to acquire knowledge in basic system design and system interface of off-shore wind farm platform after completion of the internship
Required Skills	<ul style="list-style-type: none"> General knowledge in generation of renewable energy (RE) especially in off shore wind farm platform General project management skill for identification of critical paths and analysis of schedule risks General knowledge of wind turbine and latest technology in construction of wind farm platform could be an advantage 	

CLP Internship Programme 2022

Project Focus – Mechanical Engineering (12-month)

Project Code	ME_SAND_05	
Project Detail	Internship Category	Sandwich
	Internship Period	Jun 2022 to Jun 2023
	Preferred Discipline	First Preference: Mechanical Engineering Other Preference: Other engineering disciplines
	Project Name	Operation and maintenance readiness of new power projects
	Business Objective(s)	<ul style="list-style-type: none"> • Reliability Availability and Maintainability review of new Open Cycle Gas Turbine (OCGT) project. • Setting up O&M infrastructure and business systems for OCGT project. • Spares selection for new projects • Thermal Power Plant Operational performance reporting and benchmarking
	Project Description	<ul style="list-style-type: none"> • To support supervisor to review implementation of Asset Management Standards at new power projects to achieve operational readiness in advance of startup • Involve in identification and selection of spare parts of new build • Involve in Information Technology Plan and road-map of OCGT • To collect key performance indicators of operational plants and prepare annual reports and carry out benchmarking • Operational Readiness program implementation for OCGT.
Required Skills	<ul style="list-style-type: none"> • MS Excel and Power Point 	