

CLP Internship Programme 2023

Project Outline - Electronic Engineering

Project Code	E2_SAND_01	
Project Detail	Internship Category	Sandwich
	Internship Period	Jun/2023 to May/2024
	Preferred Discipline	First Preference: <ul style="list-style-type: none"> Electronic Engineering Other Preference: <ul style="list-style-type: none"> Electrical Engineering
	Project Name	Analysis Algorithm Development and Verification for 400Kv Gas Insulated Switchgear Partial Discharge
	Business Objective(s)	To further improve reliability of 400kV Gas Insulated Switchgear in Power Station via intelligent Partial Discharge pattern recognition & analysis and therefore enhancing the the power supply stability from Power Station (BKP400 & CPK400), where are the cluster of electricity generation of Hong Kong.
	Project Description	<ul style="list-style-type: none"> To develop an intelligent signal analysis algorithm for 400kV Gas Insulated Switchgear (GIS) Partial Discharge so that we can identify various types of defects and prevent asset failure The system can facilitate our asset management strategy for Power Station's 400kV GIS which is important asset for Hong Kong power supply system To review, revise and validate the existing and future proposed new algorithm for PD monitoring System
	Required Skills	Computer programing skillsPreferable- Python,Power Automate, IT models

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Project Outline - Electronic Engineering

Project Code	E2_SAND_02	
Project Detail	Internship Category	Sandwich
	Internship Period	Jun/2023 to May/2024
	Preferred Discipline	First Preference: <ul style="list-style-type: none"> Electronic Engineering Other Preference: <ul style="list-style-type: none"> Information Technology
	Project Name	CLP Smart Metering Programme
	Business Objective(s)	Supply and connect smart meters for new customers and convert all existing meters and smart-ready meters into fully functioning smart meters to enable all CLP Power's customers to benefit from Advanced Metering Infrastructure.
	Project Description	<ul style="list-style-type: none"> Objective of the project is to improve the overall connectivity, smart meter data collection to enable better grid operation efficiency and customer experience The activities to achieve the objective potentially includes analysing of connectivity information, review and enhance associated processes for issue identification and resolution, work with relevant subject matter experts to resolve technical hurdles, communicate and align with a wide range of stakeholder (both technical and non-technical) to cultivate common visibility on the programme and drive alignment on the way forward
	Required Skills	Data analysis and visualisation via Excel and/or Power BI.

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Project Code	E2_SAND_03	
Project Detail	Internship Category	Sandwich
	Internship Period	Jun/2023 to May/2024
	Preferred Discipline	First Preference: <ul style="list-style-type: none"> E2 Other Preference: <ul style="list-style-type: none"> E1
	Project Name	Telecontrol / Telemetry Equipment Evaluation for Power Grid Applications
	Business Objective(s)	<ul style="list-style-type: none"> To study the market trend and explore new technologies supporting smart grid initiatives To evaluate telemetry / grid automation products at transmission and distribution levels
	Project Description	<ul style="list-style-type: none"> Power grid is undergoing digital transformation aiming to improve supply reliability, operational efficiency and asset management Remote Terminal Units (RTUs), Intelligent Electronic Devices (IEDs) / sensors and information / operational technology (IT/OT) security are the key enablers in our smart grid journey Our intern will work with our engineers to go through the development cycle of telecontrol / telemetry equipment. Exposure in common communication protocols in Supervisory Control and Data Acquisition (SCADA) systems will be expected Apart from the internship project, opportunity will be given to familiarise with CLP's power supply network and the associated secondary systems supporting the business Our intern may also contribute in some of our projects to support zero carbon future
	Required Skills	<ul style="list-style-type: none"> Master Control Units (e.g. Internet-of-Things) Programmable Logic Controllers (PLC, e.g. industrial automaton) Remote Terminal Units (RTUs, for power system automation)

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Project Outline - Electronic Engineering

Project Code	E2_SAND_04	
Project Detail	Internship Category	Sandwich
	Internship Period	Jun/2023 to May/2024
	Preferred Discipline	First Preference: <ul style="list-style-type: none"> Computer Science/ Computer Engineering Other Preference: <ul style="list-style-type: none"> Electronic Engineering
	Project Name	Automating Security Systems for Daily Operations
	Business Objective(s)	<ul style="list-style-type: none"> Develop software applications/monitoring & control tools for Security Branch (Security systems and Security operations' team) to streamline/automate the process in daily operation To aid these objectives, he/she will be required to understand the operating mechanisms of security systems & operations and use this knowledge to ensure successful development of applications/tools
	Project Description	<ul style="list-style-type: none"> Through the on-job training, candidate will learn about the knowledge of security systems and security operations. Coordination and collaboration with other parties may be required which shall help candidate to enhance his/her interpersonal skills He/she will have the opportunity to gain the experience on developing software applications/tools for Security Branch to automate/streamline the current process/workflow
	Required Skills	Strong software programming and coding skills in Python/ MS Power Automate/ Power BI/ Visual Basic etc.

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Project Outline - Electronic Engineering

Project Code	E2_SAND_05	
Project Detail	Internship Category	Sandwich
	Internship Period	Jun/2023 to May/2024
	Preferred Discipline	First Preference: <ul style="list-style-type: none"> Electronic Engineering Other Preference: <ul style="list-style-type: none"> Computer Science
	Project Name	Automation on Monitoring and Management in Telecom Systems
	Business Objective(s)	Enhance efficiency on Telecom workflows and systems by process automation.
	Project Description	<ul style="list-style-type: none"> Using Microsoft Power BI, Power Automate and Microsoft Forms to develop dashboards and manage process to visualize the performance of Telecom management systems Facilitating the development of key performance indicators for monitoring corporate telecom expense usage for trend analysis and cost optimization Supporting the process development for managing telecom operational changes workflow with visual presentation for performance analysis
	Required Skills	<ul style="list-style-type: none"> Knowledge in data visualization, analysis tools and automation, for example, Power BI, Power Automate, Microsoft Form and Python. Computer and networking knowledge with cybersecurity knowledge is added advantage Self-initiative, pro-active Willing to learn