Course Title: **IFC-SG and BIM Workflows Introduction Programme**

Course Synopsis

Building Information Modelling (BIM) and workflows are increasingly adopted to improve coordination of construction value chain and reduce reworks. Recently, the Building Construction Authority has mandated that files adhering to the BIM IFC-SG guidelines, must be submitted for processing and authority approval.

While this process allows for a streamlined, information-rich process, it is a paradigm shift for many users as they must ensure 3D building models are rich sources of data to assist in compliance checks. As critical sources of data, the models must comply to guidelines and standards for regulators to do data take-offs while processing the submissions.

Through this course, an introduction to CORENET X and IFC-SG standards, participants will be empowered with fundamental knowledge on how to use technology tools and processes, evaluate uses cases to have an in-depth understanding of digitalisation of the construction sector. Best practices for the submission process will be covered to ensure participants are equipped with the necessary knowledge for hassle-free submissions.

Learning Objectives & Outcomes

1. Understand digitalisation objectives in the Construction Industry

2. Introduction to CORENET X and the RABW (Regulatory Approval for Building Works)

3. Introduction to OpenBIM and IFC-SG

4. IFC-SG Validation and BIM submission process (IFC-SG information in model and export to IFC)

5. Regulatory data take-offs from IFC-SG models

6. Working with IFC models using Query tools and Issues

7. Critically evaluate use cases based on different types of submissions with mapping assessment.

Schedule (1st Day)

Time	Topic

0900 - 1030	**(1) Overview of Digitalisation processes in Construction**
	    a) Digitalisation objectives
	    b) Introduction to CORENET X, open BIM, IFC-SG

1030 – 1045	Break

1045 – 1245	**(2) IFC-SG and BIM Submission Process**
	    a) Benefits of IFC-SG
	    b) Use of configuration files
	    c) Use of validator tool for compliance
	-

1245 – 1345	Lunch

1345 - 1600	**(3) Hands on Session**
	    a) Simulate model checking before submission
	    b) Ensure relevant information is present in the model using interoperability tools
	    c) Export to IFC

1600 – 1615	Break

1615 - 1800	**(4) Insights to the Future of Work**
	    a) Use FULCRUMHQ to create queries and issues used by regulators
	    b) Evaluate use cases based on different types of submissions

Schedule (2nd Day)

Time	Topic

0900 - 1030	**(5) Assignment Evaluation**
	    a) Walk through of assignment objectives.
	    b) Q&A

1030 – 1045	Break

1045 – 1245	**(6) Best Practices**
	    a) Best practices for modelling
	    b) Revision of learnings

Prospective Trainers

Budi Susanto

Budi is a General Manager for LeapThought Asia. With 17+ years of Project Management in Civil and Building, he works both at Client and Contractor side. He was a Principal PM for Construction Projects, including experience of managing the "WNC Building" project at JTC NED 1, where he was instrumental in driving digitization for the project using Fulcrum. His past experiences enabled him to give a first-hand perspective of how digitalization improves processes involved in asset lifecycle management. In his Project Management role, Budi coordinated various stages of design submission throughout the project lifecycle from Master Planning all the way to TOP submission and eventual CSC submission and project closeout. Budi also had deep involvement in implementation of Digitalization for the Construction industry through implementation of various CDE and Digitalization tools in his past projects

Christine Tan

Christine is a Product Consultant at LeapThought, leading the development of digital platforms for government agencies in the built environment sector. She focuses on designing model checking frameworks, algorithms, and test scenarios to meet regulatory requirements, contributing to national initiatives like the CORENET X Automated Model Checker and the Smart Design Platform. Christine transitioned from architectural practice into the AEC-tech and Integrated Digital Delivery (IDD) space, where she now works closely with regulatory bodies, consultants, and international development teams to deliver digital solutions that support compliance, coordination, and automation across the construction lifecycle. Prior to LeapThought, she was with the Urban Redevelopment Authority (URA), where she developed planning policies, researched heritage sites, and managed conservation applications. Christine started her career at LAUD Architects, overseeing projects from design to completion. She holds a Master of Architecture and a Bachelor of Arts in Architecture from NUS and is a registered architect with the Board of Architects Singapore.

Praveen Nair

Praveen is an Assistant Vice President of Service Excellence in LeapThought. He is responsible for Product Design and Development based on customer experience and research. He leads the implementation of InSIGHT, the collaboration platform used by the Land Transport Authority of Singapore, powered by FulcrumHQ. With more than 7 years of working experience in both Architecture and UX design, he

specializes in designing user experiences with deep domain knowledge to optimize end-to-end product delivery for B2B and enterprise SAAS products. Adopting an investigative and data-centric approach, Praveen has led research analysis, A/B testing and training activities to create useful insights that drive product development. Integrating design thinking methodologies, strategic planning and collaboration, he works with client organizations to lead change management activities for seamless digital integration. Praveen holds a Master of Architecture degree (Design Technology & Sustainability) from the National University of Singapore and is a BCA Sponsorship Recipient.

Song Yu Chuan

An experienced architect and educator, Yu Chuan is a Lecturer at the School of Design and Environment in Ngee Ann Polytechnic, where he teaches the Diploma in Design program, specialising in Architecture, BIM and Digital Design Technology. He leads etc.lab, a design studio that focuses on community design and social architecture.His professional journey includes working with renowned firms such as RSP Architects Planners & Engineers, DP Architects, and ONG&ONG. His collaborative efforts have contributed to the success of many award-winning architectural and master planning projects. Yu Chuan's design philosophy revolves around innovation, meticulous attention to detail, and a holistic approach to design. His perception of design and architecture extends beyond the technical realm, viewing them as integral aspects of life, where every moment presents an opportunity to learn and enhance experiences

Tan Jing Min

Tan Jing Min Jing Min is an Assistant Vice President of Product in LeapThought – with a strong focus on driving product research and development, and leading implementation of key government projects such as CORENETX Collaboration Platform and Automated Model Checker. She began her career as an Architectural Designer at WOHA Architects, where she worked on significant large-scale projects with multi-disciplinary consultancies. Leveraging on more than 6 years of experience across the Architectural, Engineering, and Construction sector, her role has evolved from product consultancy towards driving product innovations, R&D and project management. Jing Min provides deep domain knowledge from Architecture and bridges initiatives from regulatory agencies and government clients with LeapThought's products. In synergy with international development teams, industry leaders and consultants, her work drives the design of computational algorithms, automations and management workflows – fostering industry-wide shifts towards enhanced BIM workflows and digital sophistication within the AEC sector.