International Islamic University Chittagong
Department of Computer Science and Engineering (CSE)
<u>Final Year Project as Complex Engineering Problem</u>

Title of the Project: Land Registration System using Permissioned Blockchain

Name of the students	Name	ID
	Md Rokib Khan	C181053
	Ali Khatami	C191068
	Md Rafidul Islam	C191065
Name of the supervisor	Abdullahil Kafi Assistant Professor Department of Computer Science and Engineering International Islamic University Chittagong	

Which P's are addressed ?

Name of Complex Engineering Attribute	Explanation (How addressed?)
P1 **Depth of knowledge required**	1.Computer and Information Science(K2): ● Based on Go Programming Language to implement chaincode 2. Engineering Fundamentals(K3) ● A good understanding of how blockchain works and the technology behind keeping records distributed

	3.Engineering Specialized Knowledge (K4)
	    ● A deep understanding of how to set up Hyperledger Fabric, make channels, and use chaincode
	4. Engineering design(K5)
	    ● Skill to create and apply chaincode for a land registration system with Frontend using React.js
	5.Engineering Practice (K6):
	    ● Experience with the Raft consensus algorithm and working with different components of the Hyperledger Fabric
	6. Safety and Environmental friendly(K7)
	    ● reduces data tampering risk, promotes transparency, and minimizes paperwork.
	7. Research (K8): Review papers that discuss how blockchain is used in registering land ownership.

P2 **Range of conflicting requirements**	N/A
P3 **Depth of analysis Required (No Obvious Solution)**	We don't design the project in any unique way. We do an in-depth analysis of this project by selecting Raft consensus algorithm from numerous algorithm
P4 Familiarity issues(Infrequently encountered issues)	Computer engineers are not typically exposed to issues related to land registration system

P5 **The extent of Applicable codes**	N/A
P6 **The extent of Stakeholder Involvement and Conflicting requirements**	N/A
P7 **Interdependence**	Our project include a number of sub-system (components) such as Network Deployment, Chaincode implementation and User Interface development.

Which A's are addressed?

Name of Complex Engineering Activity (Relates PO-10 : Communications)	Explanation (How addresses?)
A1	It js necessary to include people, money, equipment and technologies to set up and check the permissioned blockchain network.
A2	Our project include a number of sub-system such as Network Deployment, Chaincode implementation and User Interface development. There requires a better interaction between these sub systems for solving high level problem of the project.
A3	Our project involve creative use of engineering principle and research based knowledge to create a different blockchain based Land registration that

	avoids transaction fees, cryptocurrency
A4	The project involve tackling challenges such as reducing corruption and minimizing paperwork.
A5	The project deals with a new area for computer engineers which is land registration.It is necessary to document and visit the Ministry of Land website to address the project requirements.

Comments: According to the study mentioned,it has been determined that the endorsement from (P1, P3, P4, and P7) as well as (A1, A2, A3, A4, and A5) suggests that our project is well-suited to tackle complex engineering challenges, demonstrating an appropriate fit for addressing complex engineering problems.

Approval of Supervisor	Approval of Examination Committee
_____ Signature	_____ Signature