Recommended Prerequisite Courses for Institute of Computer Science and Engineering

Course	Recommended Prerequisite Courses
VLSI Design and Implementation	Introduction to SOC Design, Digital Circuit Lab., Electrical Circuits and Electronics
Artificial Intelligence	Data Structures
Formal Languages and Theory of Computation	Discrete Mathematics
Biomedical Data Mining	-
Multicore core programming and tools	Introduction to Computers and Programming, Computer Organization
Free and Open Source Software and Project Collaboration	Object-Oriented Programming
Operating System	Introduction to Operating Systems, Computer Organization
Operating System Design and Implementation (OSDI)	Introduction to Operating Systems
Vehicle Positioning, Electronic Maps, and Integrated Services	Database, Introduction to Computer Networks, Key Technologies for Internet of Things
Computational Intelligence and Application	Introduction to Computers and Programming, Linear Algebra, Introduction to Algorithms, Discrete Mathematics
Computational Complexity	Introduction to Formal Language, Introduction to Algorithms
Computer Architecture	Computer Organization
Fault Tolerant Computing	Introduction to Operating Systems, Introduction to Computer Networks
Theory of cryptology	Algorithms, Introduction to Cryptography
Software Debugging	Object-Oriented Programming
Embedded System Design	Introduction to Operating Systems, Computer Organization
Theory and Practice for Cyber-physical Systems	Introduction to Operating Systems
Secure Programming	Object-Oriented Programming
Virtual Biomedical Instrumentation	-
Cloud Operating Systems	Object-Oriented Programming, Introduction to Operating Systems, Introduction to Computer Networks
Cloud Computing and Service-Oriented Architecture	Introduction to Software Engineering
Cloud Data Mining	Data Mining
Energy-Efficient High-Performance Computing	Introduction to Computers and Programming, Computer Organization
Functional brain imaging	Biomedical Signal Processing, Signals and Systems
Data Mining	Data Structures, Introduction to Database System
Data Visualization and Visual Analytics	-
Steganography and Information Hiding	-
Approximation Algorithms	Introduction to Algorithms
Theory of Computer Games	Algorithms, Artificial Intelligence
Graph Theory	-

Evolutionary Computation	-
Algorithms	Introduction to Algorithms
Complier Design	Introduction to Computers and Programming, Data Structures
Elliptic Curve Cryptography	Introduction to Cryptography, Cryptography
Stochastic Processes	Probability, Signals and Systems
Randomized Algorithms	Probability, Introduction to Algorithms
Graphics Processing Architecture and System Design	Computer Graphics, Computer Organization
Logic Design and Synthesis	-