**Advanced Course on ICT**

**Hours-78**

1. Introduction and General Discussion 06 Hours
	* SDG, Delta plan, MDG
	* NIS
	* Blue Economics
	* Green Technology
	* E-garbage/E-Waste Management
	* Future Plan for Bangladesh
2. Computing Platform 04 Hours
* Parallel Processing
* Cloud Computing
* Data Center
* Virtualization
1. Learning Management System 08 Hours
* Online Class Room
* Collaborative Brain Storming (Google Jamboard)
* Online meeting Service
* Online Presentation (Google slides, Microsoft Sway. etc..)
1. Network Design and Client Server Model 06 Hours
	* Internet Service Provider (ISP)
* Types of Internet Connection
* Hierarchical design model for LAN
* OSI, TCP/IP Model
* IPV4 and IPv6
* Server Types
	+ DNS Server
	+ Mail Server
	+ Web Server
	+ FTP Server
1. Web and mobile apps development 15 Hours
	* PHP and Database (MySQL)
	* Domain, Hosting and C-Panel
	* Introduction to mobile apps development
2. Information and Cyber Security 04 Hours
	* Cyber Security & Ethics
	* ICT laws
	* Types of common Cyber attack
	* Basic Precaution to prevent Cyber attacks
	* Digital Certificate and digital Signature
3. Most Modern Concepts of IT field 06 Hours
* Artificial Intelligence (AI)
* Introduction to AI
* Key Development in AI
* Future of AI
* Introduction to Robots and Robotics
* Expert Systems
* Biometrics
* Bio-Informatics
* Robotics
* Cryosurgery
* Virtual Reality (VR)
1. Graphics design 8 Hours
	* Introduction to graphics design software and working tools
	* Working with basic and advanced tools
	* Working with layer and Transparency palette
2. Boolean Algebra and Digital Logic 06 Hours
* Overview of Boolean logic and Logic Circuit
* Karnaugh-map Solution
* Adder
* Encoder
* Decoder
1. Programming in C 15 Hours
* Introduction of C
* C Tokens
* I/O statements
* Conditional statements
* Control statements and loops
* Functions in C