**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