**Chapter 2 outline: (Background)**

1. **Embedded systems (Sameh Hamed):**

* **1.0 definition**
* **1.1 history**
* **1.2 applications**
* **Consumer electronics**
* **Telecommunication systems**
* **Industry**
* **Transportation**
* **Medical equipment and Health Care**
* **Military applications**
* **1.3 architecture**
* **Hardware**
* **Operating system**
* **Application software**
* **1.4 challenges and issues**
* **1.5 opportunities and advancements**

1. **IOT(Huda Mahmoud):**

* **2.0 definition**
* **2.1 history**
* **2.2 applications**
* **2.2.1 industry**
* **2.2.2 smart cities**
* **2.2.3 smart energy**
* **2.2.4 transportation**
* **2.2.5 agriculture**
* **2.2.6 connected buildings**
* **2.2.7 connected health**
* **2.2.8 retail**
* **2.2.9 supply chain**
* **2.3 architecture**
* **Physical devices**
* **Connectivity and internet gateway**
* **Edge IT**
* **Data center and cloud**
* **2.4 why IOT , why now**
* **2.5 challenges and issues**
* **2.6 opportunities and advancements**

1. **CLOUD(Mohamed Ayman):**

* **3.0 definition**
* **3.1 history**
* **3.3 characteristics**
* **3.4 models**
* **3.5 architecture**

1. **Mobile Application(Mahmoud Abdelrahman):**

* **4.0 Overview**
* **4.1 Uses**
* **4.2 Mobile data collection**
* **4.3 Architecture**
* **4.4 Challenges and opportunities**

1. **WEB Page(Bassem Adel):**

* **5.0 overview**
* **5.1 architecture**
* **5.2 Programming languages**
* **5.3 routing data**