

IFA511 Komunikasi Antar Perangkat
(Internet of Things - IoT)
Lecture 3

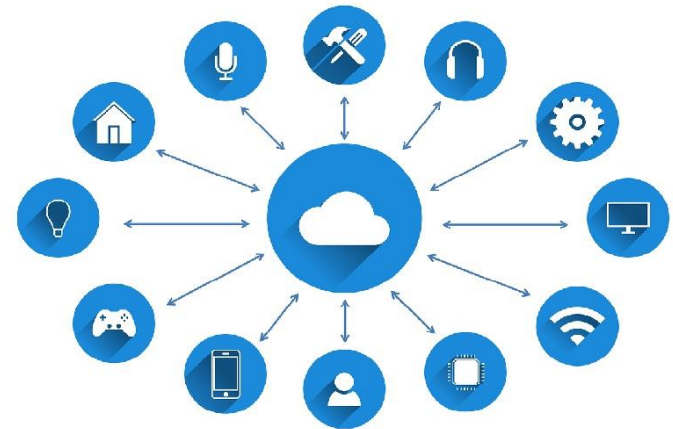
Fundamentals of IoT: Study Case

Nur Uddin, PhD.

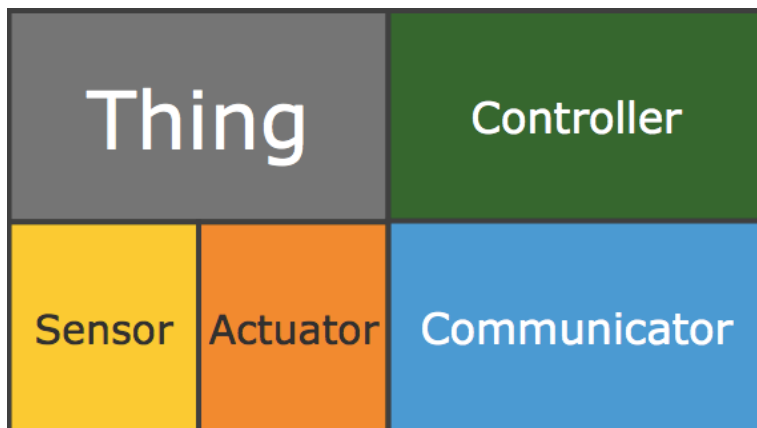
**Program Studi Informatika
Universitas Pembangunan Jaya
Tangerang Selatan**

Internet of Things (IoT)

- The Internet of Things (IoT) describes the network of physical objects—“things”—that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet.
- By means of low-cost computing, the cloud, big data, analytics, and mobile technologies, physical things can share and collect data with minimal human intervention.

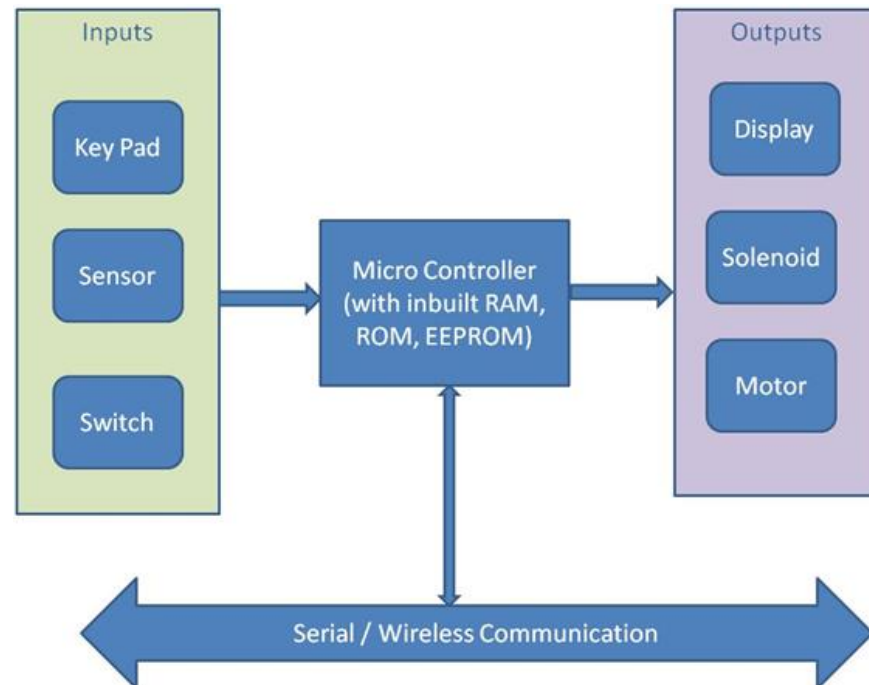


Components of an IoT Device

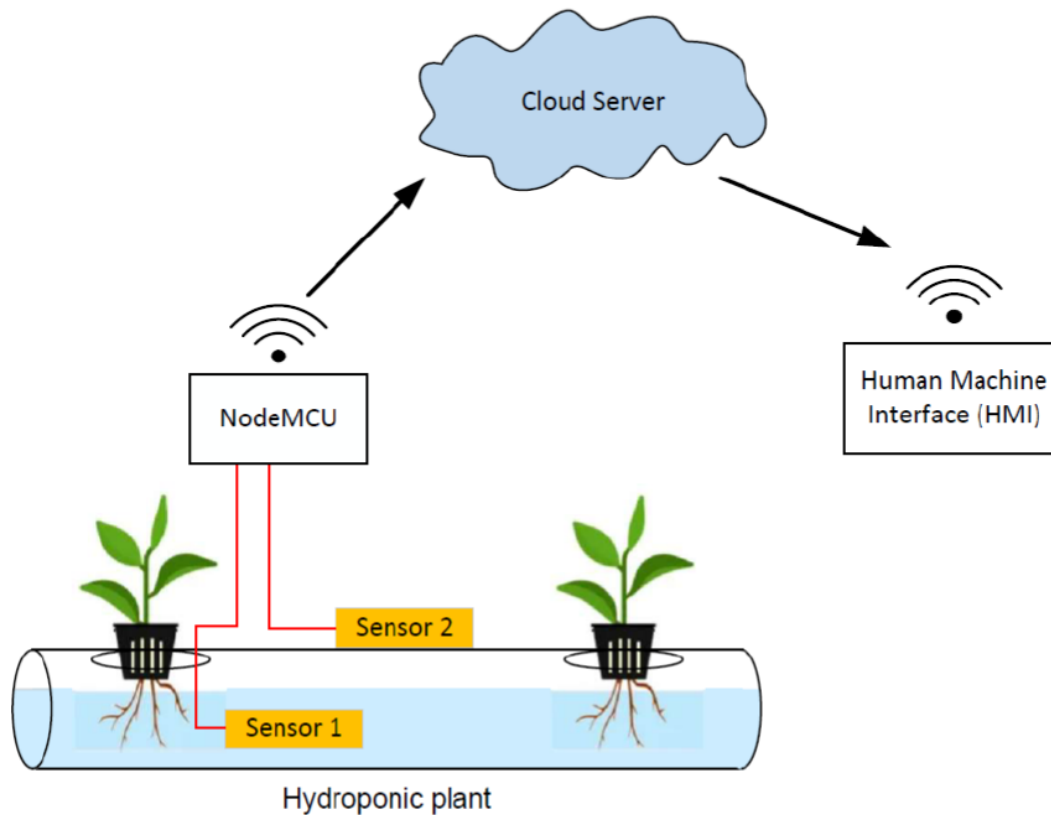


Embedded System/Computer

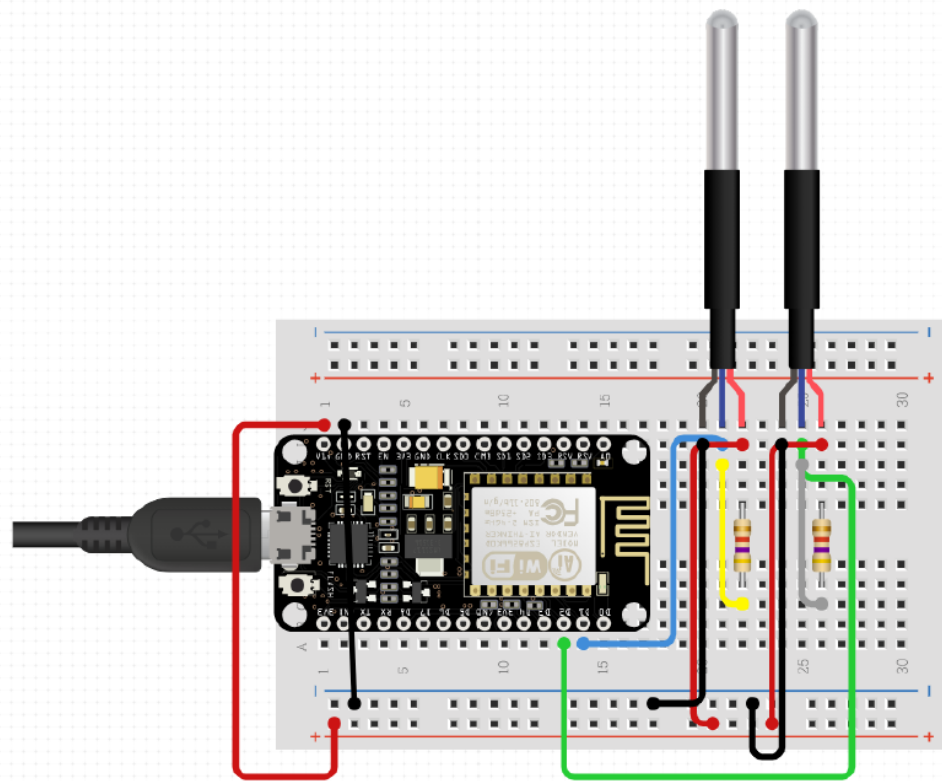
- Any sort of device which includes a programmable computer but itself is not intended to be a general-purpose computer
- General purpose
- Dedicated



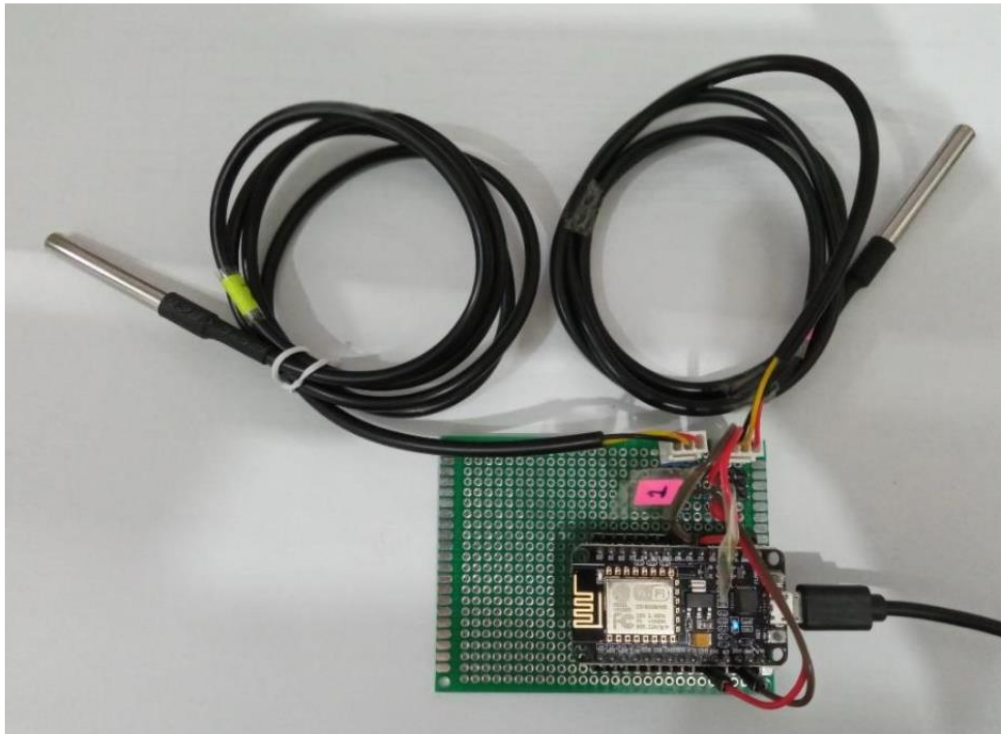
Model of IoT-based monitoring system



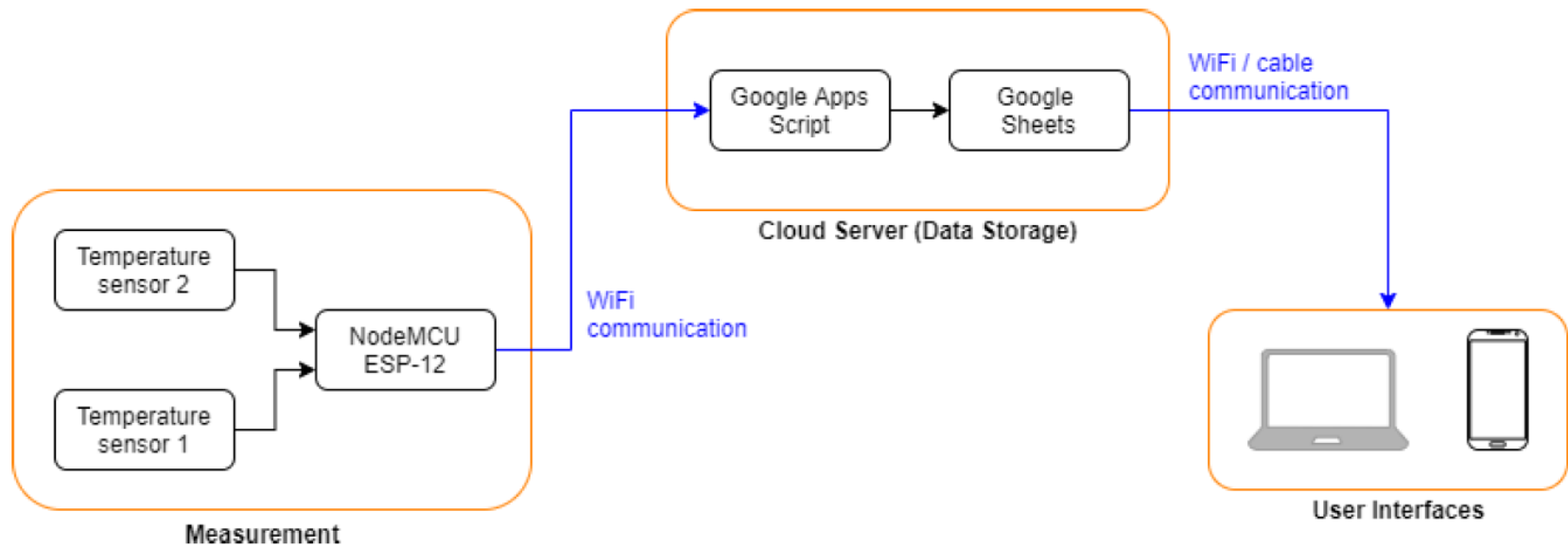
Electronic diagram



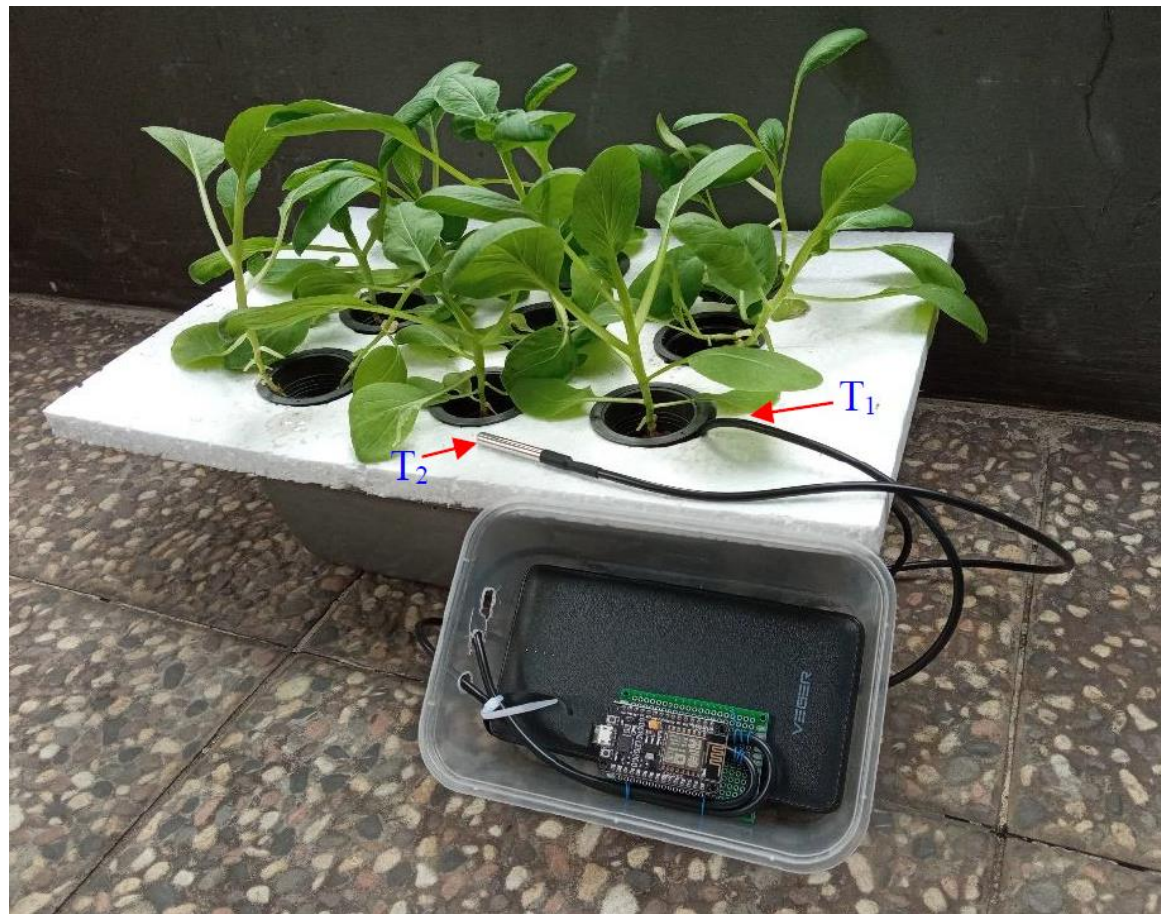
Prototype



Data flow



Experimental setup



Result

Penelitian_LogData_01 - Google Sheets

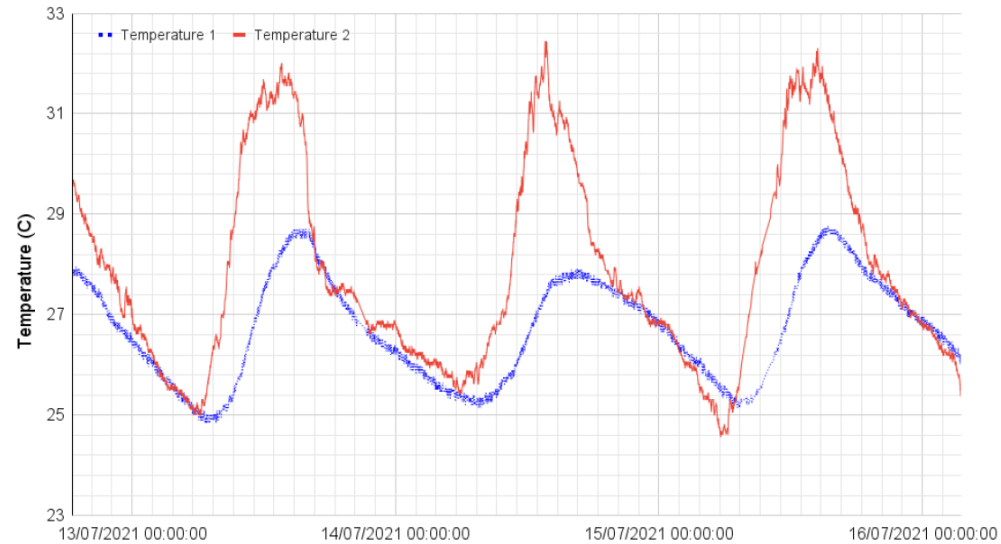
docs.google.com/spreadsheets/d/1yIQ0V1NLPNcvnP-FoY3rZ_eGuaOnDFEcFyfkQ4nH9f4/edit#gid=0

Penelitian_LogData_01

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	A	B	D	E
1	Date	Time	Temperature 1 (C)	Temperature 2 (C)
21993	14/07/2021	10:56:47	26.02	28.75
21994	14/07/2021	10:57:20	25.96	28.88
21995	14/07/2021	10:57:54	26.02	28.88
21996	14/07/2021	10:58:27	25.96	28.81
21997	14/07/2021	10:59:01	26.02	28.94
21998	14/07/2021	10:59:34	26.02	28.94
21999	14/07/2021	11:00:08	25.96	29
22000	14/07/2021	11:00:42	26.02	29.06
22001	14/07/2021	11:01:16	26.02	29.12
22002	14/07/2021	11:01:49	26.02	29.19
22003	14/07/2021	11:02:23	26.02	29.06
22004	14/07/2021	11:02:57	26.02	29.12
22005	14/07/2021	11:03:31	26.09	29.19
22006	14/07/2021	11:04:05	26.09	29.25
22007	14/07/2021	11:04:38	26.09	29.31
22008	14/07/2021	11:05:15	26.02	29.19
22009	14/07/2021	11:05:48	26.02	29.06
22010	14/07/2021	11:06:24	26.02	29.06
22011	14/07/2021	11:06:57	26.09	29.12



Data visualization

