

## CIA-I

- Ch-1 Intro to DOT  $\Rightarrow 3 \times 2 \text{ m}, 1 \times 10 \text{ m}$
  - > Ch-2 Domain specific DOT  $\Rightarrow 1 \times 10 \text{ m}$  ~~1 or 2 2m.  $3 \times 10 \text{ m}$~~
  - > Ch-3 components of DOT  $\Rightarrow 3 \times 2 \text{ m}$  (3 to 4 2m)
  - > Ch-4 M2M to DOT design methodologies  
(cyro NETCONF)  $\Rightarrow 3 \times 2 \text{ m} \text{ \& } 1 \times 10 \text{ m}$
- Unit - 2 ~~pg: 98~~ Table 4-1 in Book (List of commonly used NETCONF RAC methods)
- DOT Communication API & models  $\Rightarrow 1 \times 10 \text{ m}$

### Ch-1

> Pg: 99 - Type of nodes in YANG

Unit - 1  $6 \times 2 \text{ m}, 2 \times 10 \text{ m}$

Unit - 2  $3 \text{ to } 4 \times 2 \text{ m}, 1 \times 10 \text{ m}$

IoT device mgmt with NETCONF-YANG  
Book 4.6

Draw diag - Key: Netconfig Yang, modules  
Sample script for YANG  
(to aster modules).



To overcome the limitations of SNMP  
we go for NETCONF.

Date:

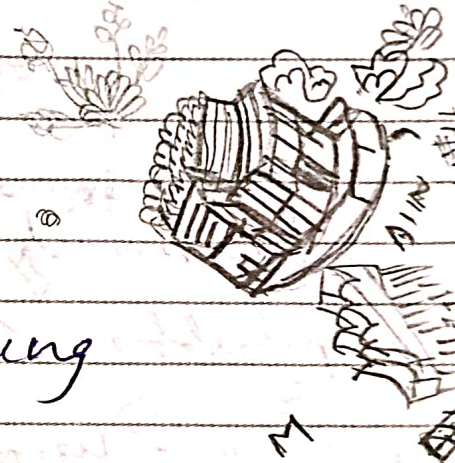
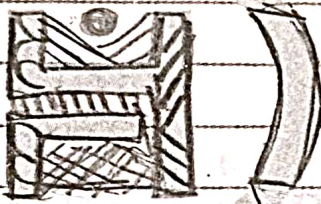
NETCONF : (Network Configuration Protocol)  
> facilitates secure RPC (Remote Procedure call)

RPC - provides communication b/w  
client & server (src) (dest) in transport layer

[ SSH - secured shell TLS - Transport Layer ]

reliable delivery  
↓  
of msg.

no missing of packets



Packet - have IP addr  
Frame - MAC addr

Framing

YANG : data modeling lang used to model  
configuration & state data manipulated by  
NETCONF protocol.

IoT Systems Mgmt with NETCONF-YANG

HAPPY NEW YEAR

Harishvaran

Harish

State del.

Router Ruckia



For NETWORK & YANA see 1<sup>st</sup> book book  
in UCR [4.5. YANA pg: 97] 47]

CIA - I

- ① IoT Design Methodologies :
- > complex & challenging task
  - 1. Purpose & requirement specification
  - 2. Process specification
  - 3. Domain Model specification
  - 4. Information Model specification (consist of )
  - 5. Service specification
  - 6. IoT Level specification
  - 7. Functional view specification
  - 8. Operational view specification
  - 9. Device & component Integration
  - 10. Application development
- For exam: design IoT for any event the domain automation apply to
- ◇ - aggregation  
◆ - component
- ↑ is a

② Design Methodologies - IoT system development for an event given draw diagrams



# UNIT-3

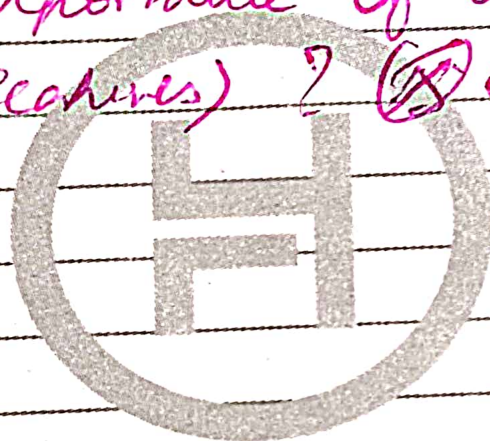
Date



Python code for any application using  
GPIO (General purpose I/O) interfaces

Mobile technologies for IoT ecosystem  
10M & 2M

Facilitate the importance of Ultra wide Band  
Technology (Features) ?



Think Different...

Assign

Draw diagrams

A4 min 10 pages

01.03.24 - IoT system development.

Steps or life cycle for weather monitoring

IoT