



All India Council for Technical Education

(A Statutory body under Ministry of HRD, Govt. of India)

Nelson Mandela Marg, Vasant Kunj, New Delhi-
110070 Website: www.aicte-india.org



AICTE Training and Learning (ATAL) Academy, (Online FDP)

Date: 20.10.2021

F. No. 01_/AICTE/ATAL-HQ/2020-21 298

To

The Principal / Director,
Vaagdevi College of Engineering
bollikunta, Warangal
TELANGANA

Coordinator Name: Mr./ Mrs. **Bandi Krishna**

Sub: Release of a sum of Rs 93,000 /- for AICTE Training and Learning (ATAL) Academy Online FDP.

Sir,

This is to convey the sanction of the Council for payment of Rs. 93,000 /- (Rupees **Ninety –Three Thousand Only**) for conduct of online **AICTE Training And Learning (ATAL) Academy FDP Internet of Things (IoT)** to Vaagdevi College of Engineering, **08.11.2021 to 12.11.2021** under **AICTE Training And Learning (ATAL) Academy**.

This fund is being released in conformity with the terms & conditions as well as norms of the scheme as already communicated, and also being communicated in this letter.

The instructions/guidelines to be followed by University/Institution

I. Release of funds and maintenance of accounts

- The University/College/Institute shall maintain proper accounts of the expenditure out of the grants, which shall be utilized only on approved items of expenditure.
- The cost for conducting per programme will be Rs. 93,000/- as per detail given as under:

1 Honorarium to Coordinator Rs 10,000/-

2 Honorarium for computer operator Rs 2,000/-

3 Honorarium for experts (Rs.5000/session for 14 sessions) Rs 70,000/-

4 Provision for payment to Lab Attendant Rs 1,000/-

5 Miscellaneous charges (petty expenses not covered above) Rs 10,000/-

TOTAL = Rs.93,000/-

Programmes having permission to change amounts under different heads with overall ceiling of Rs 0.93 lakh being intact.

- The grant is subject to the adjustment on the basis of Utilization Certificate in the prescribed proforma to be submitted by the University/College/Institution. Further, the accounts of the institute will be open for test check by the Council or Controller & Auditor General of India or any other officer designated by them.

II. Disbursement of funds to institutions

The full amount of the grant sanctioned will be released as an advance to the University/Institute through electronic transfer on the account of the University/Institute after submission of mandate form

III. Conduct of test and issuance of certificate

- A test shall be conducted by coordinator at the end of the program.

Re. T
21.10.2021

- The certificates shall be issued to those participants who have been approved by coordinator, attended the program with minimum **80% of attendance** and scored **minimum 60% marks** in the test.

IV. Submission of documents by university/institution

- a. The following mandatory relevant documents are required to be submitted by the university/institution within one month of the completion of the program: -
 - (i) List of candidates who have successfully completed the program on the basis of the test conducted by Program Coordinator.
 - (ii) A program completion report along with photographs, videos, media report is to send after the completion of workshop along with the list of participants and Utilization Certificate, Expenditure Statement etc. within one month of conduct of **AICTE Training and Learning (ATAL) Academy programme.**
- b. The amount of the grant shall be adjusted on submission of utilization certificate & detailed expenditure statement by University/Institution. On receipt of these documents, the total amount of financial assistance, admissible as per the norms, shall be worked out and grant-in-aid shall to adjust.

V. General Instructions

- a. **Maximum 200 participants** may be allowed to attend online FDP. Coordinators are free to admit a smaller number of participants depending on the feasibility.
- b. A test has to be conducted (may be online) on the last day and those who score more than 60% will be termed as successful candidates. Those who have **attendance 80% or more** and also **score more than 60% in the test** will be issued a **digital certificate.**
- c. These **online sessions are to be recorded** as the facility is available on the software which is being used for online delivery of FDP. You are also requested to upload recording on YouTube of Google drive share recording link of sessions with AICTE.
- d. **Eligibility for Participants:**
 - a. The faculty members of the AICTE approved institutions, Research scholars, PG Scholars, participants from Government, Industry (Bureaucrats/Technicians/Participants from Industry etc.)/School Teachers and staff of host institutions.
 - b. Not more than 30% from Host Institution
- e. If programme is not conducted in the financial year year 2021 only, the released amount has to be returned back to AICTE.
- f. Any extra money required to complete the programme must be borne by the institute from their own resources but the quality of the activities should not be compromised.
- g. FDP title name, name of coordinator, institute name is not allowed to change without permission however schedule dates may be changed with information ATAL Academy cell and Regional Office.

This Sanction Order may be treated as Offer Letter for all purposes.

Yours sincerely,


21.10.2021
RO, SCRO, HYDERABAD

Copy forwarded for information and necessary action to: -

1. Coordinator ATAL Programme
2. ATAL Academy Cell AICTE HQ
3. Guard File

ABOUT THE PROGRAMME

Internet of Things remains the key driver that will impact nearly every domain in the future.

The presence of IoT will continue to grow as we move beyond imagining what is possible. The main objective of this program is to introduce Node-red technology a flow based paradigm for developing IoT applications and introduce IBM's Watson for NLP applications using node-red and Interfacing IoT devices with cloud.

Major Topics

Introduction to IoT
IoT Based Python
Domain Specific IoT
IoT Devices & RaspberriPi
IoT Protocols
Node - Red Introduction
Introduction to IBM WATSON
IoT with Cloud

RESOURCE PERSONS

Experts from industries and experienced faculty from renowned institutions will deliver lectures and handle practical sessions

ORGANIZING COMMITTEE

PATRON

Dr. K. PRAKASH
Principal

CONVENOR

Dr. V. JANAKI
Prof & Head, Dept. of CSE

COORDINATOR

Dr. B.KRISHNA
Associate Professor ,
Dept. of CSE

Contact Details :

Dr. B.Krishna
Associate Professor Department of CSE
VAAGDEVI COLLEGE OF
ENGINEERING
Email: krishna_b@vaagdevi.edu.in
Mobile : +91 9951970748



**ATAL- AICTE
TRAINING AND LEARNING
SPONSORED**

ONE WEEK

**FACULTY DEVELOPMENT PROGRAM
ON**

**Implementation of IoT Devices with Node-Red
Interfacing IBM Watson
November 8th to 12th , 2021**



Organized by
Department of Computer Science and
Engineering

**VAAGDEVI
COLLEGE OF ENGINEERING**
Bollikunta, Warangal - 506005.
Telangana

ABOUT THE COLLEGE

Vaagdevi College of Engineering, established in 1998 and affiliated to Jawaharlal Nehru Technological University, Hyderabad. It is a premium Institution of Viswambhara Educational Society serving the cause of Technical Education through a large number of academic and technical institutions based in and around the historic city of Warangal, Telangana. The college offers 5 B.Tech and 5 M.Tech. programs in Engineering apart from other post graduate programs in MCA and MBA. Vaagdevi College of Engineering is established since the inception of the college in 1998 and has qualified and dedicated faculty. Apart from B.Tech. the institution also offers AICTE approved M.Tech. programs in all departments. Institution is successful in organizing many programs under ISTE & IETE students & faculty chapters

ABOUT THE DEPARTMENT

The CSE department was started with 40 seats in 1998-99 and increased to 240 in the academic year 2012-2013. The department strives for global excellence in teaching and focus on research and technology development.

The department of Computer Science and Engineering has a vibrant body of faculty with 66 in number . The main objective of the department is to provide a platform in which the stake holders acquires knowledge about the advanced emerging technologies.

Department has several MOU's with industry and academia. Continuous interactions with the industry that helps our students to brace themselves to absorb into the industry and higher studies abroad.

ATAL - AICTE TRAINING AND LEARNING SPONSORED

ONE WEEK FDP
ON

Implementation of IoT Devices with
Node-Red Interfacing IBM Watson

Organized by
Department of CSE
Vaagdevi College of Engineering,
Warangal -506005

REGISTRATION FORM

Name Dr./Mr./Mrs. :
(in Block letters)
Designation :
Department :
Name of the :
Institution
Address :
.....
Mobile :
Email id :
Is the Institution approved by AICTE?(Y/N)

Declaration by Applicant

The given information is true to the best of my knowledge. I agree to abide by the rules and regulations governing the programme. If selected, I shall attend the workshop for the entire duration.

Place:
Date :

Signature of the Applicant

ATAL ACADEMY

AICTE Training and Learning (ATAL) Academy is established with the vision "To empower faculty to achieve goals of Higher Education such as access, equity and quality". AICTE is committed for development of quality technical education in country by initiating various schemes launched by Govt. of India, Ministry of Human Resource Development. Council understands that there is a need of the day to train the young generation in skill sector and faculty to be trained in their respective disciplines. Training is required to increase the knowledge and skills of faculty and students to make them more competent and meet global challenges.

ELIGIBILITY

This course is open to Faculty members and Research scholars of AICTE approved Engineering colleges and Polytechnic colleges.

REGISTRATION

The registration is free.

Only online Registration for the course.

Link: <https://aicte-india.org/atal>

CERTIFICATION

The Certificate shall be issued by AICTE Training and Learning (ATAL) academy to only those participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test conducted at the end of the online FDP

Important Dates

Last Date (Online Registration): 1-11-2021
Selected Participants will be notified by email.



VAAGDEVI COLLEGE OF ENGINEERING

Autonomous

Bollikunta, Khila Warangal (Mandal), Warangal Urban-506 005 (T.S), www.vaagdevi.edu.in

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Faculty Development Programme

On

**Implementation of IoT Devices with Node-Red Interfacing IBM Watson
8-11-2021 to 12-11-2021**



Day / Date	10:00 – 11:30		11:45- 1:15		2:00 – 4:00
Day 1 8-11-2021	Introduction to IoT Prof S.S.V.N. Sarma Dean Placements VCE	T E A R E A K	Introduction to IoT Prof S.S.V.N. Sarma Dean Placements VCE	L U N C H B R E A K	IoT Based Python HANDS – ON Dr. B. Krishna Associate prof, CSE VCE
Day2 9-11-2021	IoT Devices & RaspberriPi HANDS – ON Mr. P. Rajkumar Associate Prof, CSE VCE		IoT with Cloud Prof. Tarachand Amgoth IIT Dhanbad		IoT with Cloud HANDS – ON Mr. P. Rajkumar Associate Prof, CSE VCE
Day 3 10-11-2021	Node – Red Introduction Mr. M. Mruthyunjaya Associate Prof, CSE SRITW		Stress Management Mrs. Jaya L Coppisetty Head – CRT & Counseling VCE		Node Red Installation Node Red with RaspberriPi HANDS – ON Mr. P. Rajkumar Associate Prof, CSE VCE
Day 4 11-11-2021	IoT Protocols Dr. J. Srikanth Assistant prof, CSE VCE		Introduction to IBM WATSON Mrs. Tulasi AI Developer Smart bridge		-Account creation -Token Generation -Using token in Node Red HANDS – ON Mr. P. Rajkumar Associate Prof, CSE VCE
Day 5 12-11-2021	Domain Specific IoT Dr. E. Damodar Reddy Associate Prof, CSE NIT Goa		-Node Red with WATSON -Text to speech -Speech to Text HANDS-ON Mr. P. Rajkumar Associate Prof, CSE VCE		Validictory



Bandi Krishna



vaagdevi dean


IoT TRENDS [Compatibility Mode] - Microsoft Word

Home Insert Page Layout References Mailings Review View

Font Paragraph Styles

Normal Heading 1 Heading 2 Heading 3 Heading 4 Title Subtitle Subtle Em... Change styles

Find Replace Select Editing



Amazon Echo Plus voice controller is a popular and reliable IoT device. It is capable to run songs, do phone calls, set timers and alarms, ask questions, provide information, check the weather, manage to-do & shopping lists, manage house instruments, and several other things.

Top Features:

- Amazon Echo can play songs, connect to external speakers or headphones.
- It is capable of making calls and messaging on voice command.
- Amazon Echo has around 6-7 microphones, good technical specification and sound cancellation. It is capable of hearing your voice from all the directions even when songs are played.
- Controls compatible smart home devices including lights, plugs, and more.

Page: 2 of 27 | Words: 1,820



vaagdevi dean

Via Cisco Webex

SS



Manta R Agarwal

G

Gaurav

V

vmphalle



Dr. AMIT DUTTA



Rajive Kumar

+37



Bandi Krishna

Via CiscoWebex

SS



Rajive Kumar

G

V



Dr. AMIT DUTTA

Sapna Singh

Gaurav

vmphalle



Mamta R Agarwal

+43



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IoT and Big Data - Microsoft PowerPoint

Home Insert Design Animations Slide Show Review View

Slides Outline

What is IoT?

The Internet of Things (IoT) is the network of physical objects or "things" embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data.

IoT allows objects to be sensed and controlled remotely across existing network infrastructure, creating opportunities for more direct integration between the physical world and computer-based systems, and resulting in improved efficiency, accuracy and economic benefit.

Click to add notes

Slide 3 of 33 | Flow



02_Internet-of-things-IoT-by-Davis-M-Orsaka_SOC-to-SG - Microsoft PowerPoint

Home Insert Design Animations Slide Show Review View

Slides Outline

14

15

20

21

22

23

24

WHAT NEEDS TO BE DONE?

1. Consumer education
2. Product reviews and comparisons
3. Vulnerability disclosure and vulnerability markets
4. Self-certification and voluntary codes of practice
5. Trust marks and labels like Internet Society's Online Trust Alliance (OTA) IoT Trust Framework
6. Government initiatives
7. Mandated security requirements
8. Mandated certification
9. Liability reform
10. Etc.

11. No intervention!

Slide 22 of 24 "Vadot Trail"

73%





**ATAL - AICTE TRAINING AND LEARNING
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One Week Faculty Development Program

**Implementation of
Inter
0
Node-Red**

**DEPARTMENT OF
VAAGDEVI ENGINEERING**

Patron
Dr. K. PRAKASH
Principal

Coordinator
Dr. B. KRISHNA
Assoc. Prof., Dept. of CSE

Krishna B

important - bandikrishna007 | Google Account | (A) WhatsApp | Meet - ATAL FDP - IoT | Untitled92.pynt - Colabor... | colab.research.google.com/drive/1uyGuQkHQdbL0JZgWC57pVZLkYQm0gB5Y#scrollTo=Z75V4Gdo0K5L

Files

- sample_data

```
+ Code + Text
Yaagdevi
[ ]
[40] bool("")
      false
[44] s=str(True)
      type(s)
      str
[48] X="hello learning python is very easy!!!"
      print("python" in X)
      True
print('I have %.4f cats %0)
I have 6.0000 cats
```

Disk 61.39 GB available

Os completed at 2:45 PM

29°C 2:45 PM 11/8/2021



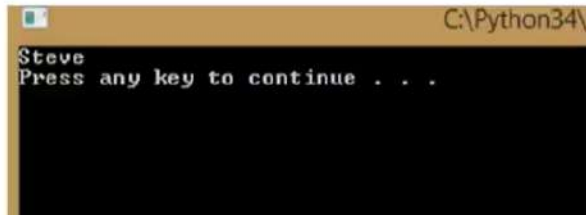
Bandi Krishna

You can add a value to a list with append()

```
guests = ['Christopher', 'Susan', 'Bill', 'Satya']
```

```
#add a new value to the end of the list  
guests.append('Steve')
```

```
#display the last value in the list  
print(guests[-1])
```



```
C:\Python34\  
Steve  
Press any key to continue . . .
```

B

Bandi Krishna

important - bandikrishna007 x Google Account x (10) WhatsApp x Meet - ATAL FDP - IoT x Untitled92.symb - Collabor x

meet.google.com/dcf-yrcv-wpd7p1l-1

REC You're presenting to everyone Stop presenting

R Chawngsangpuli

Pradeep kumar Bhatia

Krishna B

You

In-call messages

Messages can only be seen by people in the call and are deleted when the call ends.

3 sides of square

Krishna B 3:51 PM
<https://forms.gle/LRHkYw10eAtc9Pv6>
Dear participants, please fill attendance for session 2

R Chawngsangpuli 3:52 PM
Thank you

Jayadevan NM 3:59 PM
Why python is preferred than other high level languages other than the availabilities of the libraries?

Stop presenting

To avoid an infinity mirror, don't share your entire screen or browser window. Share just a tab or a different window instead.

Ignore

3:59 PM | ATAL FDP - IoT (8th Nov - 12th Nov)

Type here to search

29°C 3:59 PM 11/8/2021



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MicroProcessor v/s MicroController

- **Microprocessor** is an IC which has only the CPU inside them i.e. only the processing powers such as Intel's Pentium 1,2,3,4, core 2 duo, i3, i5 etc.

Rasp pi 4: Broadcom BCM2711, quad-core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz ...

Microcontroller has a CPU, in addition **with a** fixed amount of RAM, ROM and other peripherals all embedded on a single chip

Which is better microprocessor or microcontroller?

- There is nothing like one is **better** than other. It depends upon the requirements. For small applications where only few basic tasks to be done, a **microcontroller** can be used as it comes with all basic components such as RAM, ROM etc in built on it. ... **Microprocessor** has powerful configuration than a **Microcontroller**.



Raj kumar


```
Thorny ~/Home/pi/AtarDay/Session1/LED1.py @ 21:1 10:59 AM 09 Nov 21  
New Load Save Run Debug Over Info Out Resume Stop  
utracam1.py X <untitled> X LED1.py X  
1 import time  
2 import RPi.GPIO as GPIO ## Import GPIO library  
3 GPIO.setmode(GPIO.BCM) ## Use board pin numbering  
4 GPIO.setup(18, GPIO.OUT) ## Setup GPIO Pin 11 to OUT  
5  
6 try:  
7     while True:  
8         GPIO.output(18, GPIO.HIGH) ## Turn on Led  
9         time.sleep(1) ## Wait for one second  
10        print("On")  
11        GPIO.output(18, GPIO.LOW) ## Turn off Led  
12        time.sleep(1) ## Wait for one second  
13        print("Off")  
14    except KeyboardInterrupt:  
15        print("Keyboard Interrupt")  
16    except:  
17        print("Some error")  
18    finally:  
19        print("cleanup")  
20        GPIO.cleanup()  
21  
Shell  
Python 3.5.3 (/usr/bin/python3)  
>>>
```



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DAY 2 (SESSION 1) ATAL FDP On IoT || IoT Devices & RaspherriPi



```
Linux raspberrypi 4.19.66-v7+ #1253 SMP Thu Aug 15 11:48:46 DST 2019 armv7l
The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Mon Nov  8 16:21:01 2021 from 169.254.40.6

SSH is enabled and the default password for the 'pi' user has not been changed.
This is a security risk - please login as the 'pi' user and type 'passwd' to set a new password.

pi@raspberrypi:~$ startlxde
** Message: main.vala:102: Session is LXDE
** Message: main.vala:103: DE is LXDE
** Message: main.vala:134: log directory: /home/pi/.cache/lxsession/LXDE
** Message: main.vala:135: log path: /home/pi/.cache/lxsession/LXDE/run.log
```



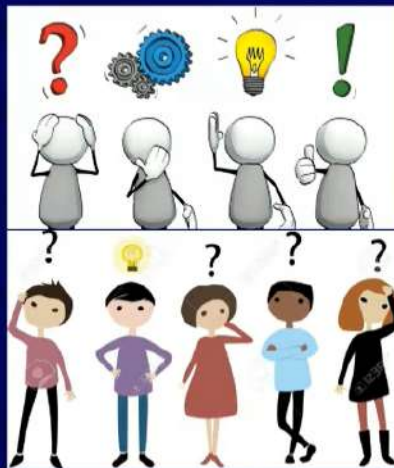
Raj kumar

General awareness of the following

» Mental - Thinking

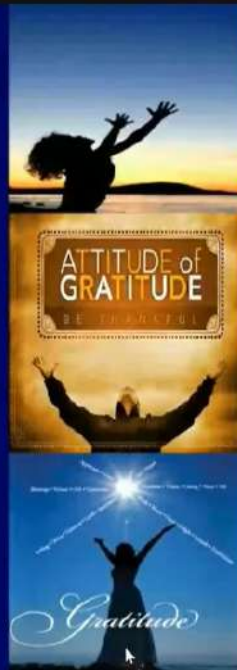
» Emotion – Feeling

» Stress - Behave



How Can We Manage Stress..?

- We should live with an Attitude of Gratitude to GOD.
- we need to be Grateful for what we have.
- Always we need to count our blessings than missing's.



The screenshot displays the Node-RED web interface running on a Raspberry Pi. The browser address bar shows the URL `127.0.0.1:1880/eflow/a6eb9aff.0af728`. The interface features a central workspace with a grid where a flow is being constructed. On the left, an 'input' sidebar lists various nodes such as `mqtt`, `http`, and `serial`. The main workspace contains a flow named 'Led-on-of' with two input nodes labeled 'On' and 'Off' connected to a central 'Led' node. On the right, an 'info' sidebar provides details about the selected flow, including its name, status, and a description field.



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Ubidots | Dashboards

Turning on Raspberry Pi : Node

(10) WhatsApp

Meet - dcl-yru-wpo

industrial.ubidots.com/app/dashboards/618a44378e06210ec8d8d446a

ubidots

Devices - Data - Users - Apps

29 days left on trial

Nov 09 2021 15:45 - Now

```
pi@raspberrypi
(47, 42)
('temperature', 'humidity', 'position')
[INFO] Attempting to send data
[INFO] request made properly, your device is updated
[INFO] finished
(1, 67)
('temperature', 'humidity', 'position')
[INFO] Attempting to send data
[INFO] request made properly, your device is updated
[INFO] finished
(32, 69)
('temperature', 'humidity', 'position')
[INFO] Attempting to send data
[INFO] request made properly, your device is updated
[INFO] finished
(47, 28)
('temperature', 'humidity', 'position')
[INFO] Attempting to send data
[INFO] request made properly, your device is updated
[INFO] finished
(32, 81)
('temperature', 'humidity', 'position')
[INFO] Attempting to send data
[INFO] request made properly, your device is updated
[INFO] finished
```

Temperature

Last Up

Map

Warangal Airport

Thimmapur

Singarani

Bullakunta

Kapala Karapathy

Garicherla

Ramachandrapuram

Panthani

Puneri

Inavlu

Mukalabudem

Mhyy Temple

Dhupakunta

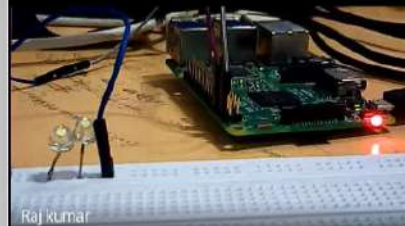
Vanchanagiri

Shayam

Katres

Map data ©2021 Terms of Use Report a map error

Nov 09 2021 15:45



Raj kumar

cloud.ibm.com/resources

IBM Cloud Search resources and offerings... Catalog Docs Support Manage raj kumar's Acc...

Resource list

Create resource +

Name	Group	Location	Status	Tags
Filter by name or IP address... Filter by group or org... Filter... Filter... Filter...				
Cloud Foundry services (1)				
Services and software (5)				
Speech to Text-ca	Default	London	Active	s2t
Text to Speech-x6	Default	London	Active	-
Visual Recognition-f9	Default	Dallas	Active	-
Watson Assistant Restaurant	Default	London	Active	version1
Watson Studio-qq	Default	London	Active	-
Storage (1)				
Network (7)				

node-v16.13.0-x64...mjl Show all X



Raj kumar

IoT & Degitization and Impact of IoT

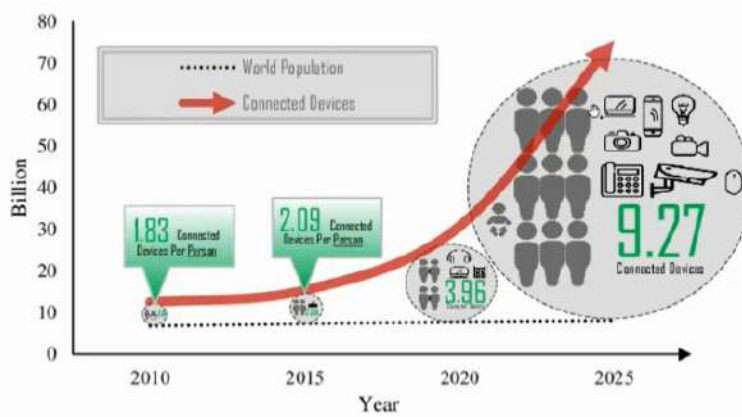


Figure: The Rapid Growth in the Number of Devices Connected to the Internet



Srikanth Jannu