

Department of Information Science and Engineering

VISION

Emerge as centre of learning in the field of information science & engineering with technical competency to serve the society.

MISSION

To provide excellent learning environment through Balanced Curriculum, Best Teaching Methods, Innovation, Mentoring and Industry

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THE EDITORIAL BOARD

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Mrs.Arptha H M

Brochure

Resource Persons

Mr. Arun K
Nihon Communications Solutions Ltd.

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Infidata Technologies

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Sakha Global Information System, Bengaluru

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Dr. Anupama H S
BMSIT&M

Mr. Gireesh Babu C N
BMSIT&M

Mr. Chandrashekhara T
BMSIT&M

Mrs. Vinutha K
BMSIT&M

**Registration Fee: 1500/- Per Participant
(Rupees One Thousand Five Hundred only)**

The participants can pay the registration fee through either DD or NEFT. The demand Draft (DD) has to be drawn in the favor of "Principal, BMSIT&M, Bengaluru" payable at Bengaluru.

For online Registration

URL: http://bit.ly/BMSIT_FDP_2018_2019
Email id: fdp_ise_2019 @bmsit.in

Chief Patrons

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Dr. Mohan Babu G. N
Principal, BMSIT&M, Bengaluru

Organizing Chairs

Dr. Manjunath T. N, Professor & HOD, ISE
Dr. Thippeswamy G, Professor & HOD, CSE
Dr. C S Mala, Professor & HOD, TCE

Conveners

Dr. S. K. Pushpa, Professor, ISE
Dr. Anil G N, Professor, CSE
Prof. Raju Hajare, Assoc. Prof, TCE

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BMS INSTITUTE OF TECHNOLOGY &
MANAGEMENT, BENGALURU



"National Level Five Day FDP on Machine
Learning for IoT Applications"

Organized by

Department of ISE, CSE & TCE

(A Part of 15C881 Syllabus)

In Association with



28th January to 1st February 2019



VISION

To emerge as one of the finest technical institutions of higher learning, to develop engineering professionals who are technically competent, ethical and environment friendly for betterment of the society.

MISSION

Accomplish stimulating learning environment through high quality academic instruction, innovation and industry institute interface.

About the Institute

B M S Institute of Technology & Management was started in the year 2002 affiliated to VTU recognized by AICTE, New Delhi. BMSIT & M has been awarded 'A' Grade by NAAC with 7 of our Programs are NBA accredited. 7 UG Programs and 3 PG programs and 9 R & D Centers are recognized by VTU, Belagavi. BMSIT & M received various appreciations from media. BMSIT & M has been recognized as the Outstanding Engineering Education Institute (South India) by Vijayavani. BMSIT&M has been Elite Club in NIRF (National Institutional Ranking Framework) of 100 to 150 rank band.

About Departments

The Department of Information Science and Engineering started in the Year 2010 with an approved intake of 60 and Enhanced to 120 from the academic year 2018-19.

The Department of Computer Science & Engineering started in the year 2002 – 2003 with an intake of 60, Year 2010 with an intake 90 and currently it is 180.

The Department of Telecommunication was established in the year 2003, with an AICTE approved intake of 60.

The above departments are highly progressive and have a team of well qualified, experienced and dedicated faculty members practicing OBE in the academic deliverables. The faculties have published research articles in various National, International Conferences and Journals. The departments have modern laboratories to serve the teaching and research needs of the students as well as faculty members. The departments have been organizing conferences, workshops, expert lectures and student centric activities to encourage students and faculty members to inculcate lifelong learning.

About the FDP

As India, is moving towards digitization, which predominantly impacts the daily activities of life which is beyond industry automation. There is a need for cautious digital transformation in many areas to fully make use of the changes which helps society with present and future shift in human minds.

IoT, Internet of things is one of the mostly used buzz word in the minds of our young aspiring engineers to build their career. IoT combines machine, data and analytics with artificial intelligence which is nothing but machine learning, which provides integrated ecosystem for smart environment.

It benefits isolated areas, everywhere, all the time. IoT with machine learning has numerous potential applications in assuring improved health and safety in medical area like: track cancer treatment, depression fight, detecting glucose level in patients, Parkinson's disease, etc., telecom industry, industry automation, smart city, agricultural, rural development, disaster warning, manufacturing industry and many more.

This FDP has been precisely planned and organized to provide platform to share knowledge among students, academicians, and industry experts, to bridge the gap between industry and academicians.

The main aim of the FDP is to connect academicians, professionals from industry and students into IoT ecosystem and provide a platform for scholars, engineers, academicians to motivate and promote their research developments in Machine Learning and IoT.

Objectives of the FDP

- To drive the importance of data analytics Machine learning for IoT applications.
- To provide theory concepts and hands on experience in machine learning for IoT (Practical Approach for VTU syllabus)
- To provide a platform to handle minor and major projects in the related domains.
- To provide amalgamation of academicians and industry person.

Target Audience

Faculty members of all disciplines who are interested to work on Data Analytics using R and Python, Industry people who are interested to update their skills are eligible to attend the FDP. Maximum participants are limited to 60 on first come first serve basis.

FDP Material

Soft Copy of the presentation and software used in the program will be provided for all the delegates along with the certificate of participation.

Organizing Committee

Prof. Mahalakshmi S, Dept. of ISE
Prof. Shanthi D L, Dept. of ISE
Prof. Swetha M S, Dept. of ISE
Prof. Hema Malini B H, Dept. of CSE
Prof. Bharathi B, Dept. of CSE
Prof. Guruprasad S, Dept. of CSE
Prof. Shankar R, Dept. of CSE
Prof. Thejaswini S, Dept. of TCE
Prof. Banuprakash R, Dept. of TCE

Event Schedule

Date/Day	Session-1		Session-2		Session-3		Session-4
	9:00 AM to 10:30 AM		10:45 AM to 12:30 PM		1:30 PM to 3:00 PM		3:15 PM to 4:30 PM
28-01-2019 MONDAY	Registration and Inaugural Function + Key Note Address by (Buddhadeb Das Gupta Sr. Vice President , JMR Infotech,)	T E A B R E A K	Machine Learning for IoT & Applications with Case Study (Dr. Pushpa S. K)	L U N C H B R E A K	Introduction to Raspberry Pi & Configuration of Raspberry Pi (Mrs. Veena N)	T E A B R E A K	Raspberry Pi with different programming languages & Applications of Raspberry Pi (Mrs. Veena N)
29-01-2019 TUESDAY	Applications using LED, DHT11 and Raspberry Pi (Mr. Arun)		Real time applications using a DHT11, LED and Raspberry pi. (Mr. Arun)		Introduction to IoT , IoT communication protocol. (Mr. Arun)		IoT Applications using DHT11, Raspberry Pi, LED and smart phones. (Mr. Arun)
30-01-2019 WEDNESDAY	Installation of IDE for Arduino (Dr. Mala C S)		Hands on Arduino (Dr. Mala C S)		Security Issues for Machine Learning with IoT Data (Dr. Usha B A)		ANN and Backpropagation Algorithms (Dr.Anupama H S)
31-01-2019 THURSDAY	Weather Prediction using Naive Bayes Algorithm (Mr. Chandrashekara K T)		KNN for Iris Data Set (Mr. Gireesh Babu C N)		K Means Algorithms for Crime Detection (Mrs. Vinutha K)		Trends in Data Science (Dr. Manjunath T N)
01-02-2019 FRIDAY	Research Issues on IoT (Dr. Vijay Mishra)		Research Issues on IoT (Dr. Vijay Mishra)		Assessment		Valedictory

Resource Persons:

Dr. Vijay Mishra, (Centre for Nano Science & Engineering, IISc.)	Dr. Manjunath T. N (BMSIT&M)	Dr. Mala C. S (BMSIT&M)	Dr. Pushpa S. K (BMSIT & M)	Dr. Usha B. A (BMSIT&M)
Dr. Anupama H. S (BMSIT&M)	Mrs. Veena N (BMSIT & M)	Mr. Chandrashekara K. T (BMSIT&M)	Mrs. Vinutha K (BMSIT&M)	Mr. Gireesh Babu C. N(BMSIT&M)
Mr. Arun (Nihon Communications Solutions Ltd.)				

COURSE OUTCOMES

The Learner should be able to:

1. **Understand** the installation procedures for the Arduino and Raspberry pi kits.
2. **Design** sample programs using Arduino and Raspberry pi kits.
3. **Apply** Appropriate data sets to the Machine Learning algorithms.
4. **Identify and apply** Machine Learning algorithms to solve real world problems.

Participant List

SL.NO	NAME	COLLEGE
1	Dwarakanatha G.V	BMSIT&M
2	RESHMA C.R	BMSIT&M
3	DRAKSHAVENI G	BMSIT&M
4	DR.APARNA K	BMSIT&M
5	NIRUPAMA	BMSIT&M
6	SAMPATHKUMAR S	KSIT
7	HARISH G.N	GOVT.POLYTECHNC HIRIYUR
8	SATISH SHET K	JSSATE
9	KAVITHA H.S	JSSATE
10	SUGUNA G.C	JSSATE
11	BHANUMATHI	JSSATE
12	GAYATHRI R	SCE
13	DR.ANIL G.N	BMSIT&M
14	N.RAMAROA	BMSIT&M

15	PRASHANTH A.A	BMSIT&M
16	DR.SANDHYA G.	KNSIT
17	DEEPA N REDDY	BMSIT&M
18	DR.SHOBA RANI	BMSIT&M
19	VINUTHA B	BMSIT&M
20	SHRUTHI J	BMSIT&M
21	DR.SANJAY C	BMSIT&M
22	SRIDEVI S	KNSIT
23	BABUNAYAK G	BMSIT&M
24	SHASHANK K .N	VVCE
25	RAKESH K.R	VVCE
26	PAVAN KUMAR S.P	VVCE
27	DR.MADHUPALATI	BMSIT&M
28	DR.SEEMA SINGH	BMSIT&M
29	MAMATHA K.R	BMSIT&M
30	ARUMKUMAR	BMSIT&M
31	SAVITHA A.C	JSSATE
32	YASHWANATH KUMAR T.R	
33	SHILPA HIREMATH	BMSIT&M
34	ASHA.G.MAGARGUND	BMSIT&M
35	LATHA	SCE
36	MADHUSHREE	SCE
37	SHILPA G.	BMSIT&M

Profile of Resource Persons



Buddhadeb Das Gupta (Deb) is an Electrical Engineering graduate and an alumnus of IIM Bangalore. A business leader with an excellent grasp of how to leverage technology for successful business outcomes, Deb has a demonstrated track record of thirty years in leadership, organizational

transformation and entrepreneurial positions spanning product conceptualisation and development, innovation, organization operational excellence, technology practice and competency creation, large account and program management, service delivery, strategy and presales, HR and talent creation.

As a senior business leader, Deb has driven growth and profitability for the organizations he has worked for. He has leveraged his expertise and experience in entrepreneurship, technology practice creation, customer relationship management in the global context and organizational transformation to build scalable organization through operational excellence. He has been a catalyst in driving a culture of growth, performance and success in his corporate roles by leading from the front.

Deb Co-founded and successfully exited a technology product and services startup – Postero Technologies Pvt. Ltd. (Postero’s business was recently acquired by a Swedish headquartered technology services company). Postero provided both PaaS and technology services to Enterprises globally.

At Postero, Deb spearheaded the conceptualization and build of the next generation ML based predictive analytics platform for HR Analytics – HireAssure.

The technology services business at Postero offered architecture consulting services working closely with Sitecore – one of the industry leaders in Digital Experience and Digital

Commerce, providing Product Engineering services for the world's first Docker containerised Identity Management Product company for re-engineering their product from legacy to open source, building a USSD based mobile banking application and other engagements on open source technologies.

Prior to his last entrepreneurial and advisory role, Deb served as Chief Operating Officer of Nous Infosystems, a Bangalore based rapidly growing IT Services company serving global clients, where he was responsible for driving organizational transformation, growth and profitability for the company. As their COO, he has led a 1000+ strong organization to achieve significant growth in its topline and bottom-line across its three business lines viz. Global Software Services, Independent Testing Services and RIMS. spearheaded creation of technology practices in the emerging Digital Space, significantly enhanced customer satisfaction and built a strong foundation in employee engagement.

In the past, he has served as Vice President of Global Services Delivery at Oracle Financial Services Software Ltd.(earlier i-flex solutions Ltd.) handling large Business Unit P&L, managed multi-million dollar engagements for large global and regional BFSI customers, headed Services Sales for MEA and headed the product engineering for 3 of Oracle's FSGBU products

Currently, Deb serves as Sr. Vice President - Customer Fulfilment at JMR Infotech.

Sanketh G

Career Profile:

Designation– Application Engineer for the team Wireless Sensor Network & Internet of Things. Work Experience– 1 year of service in the Wireless Sensor Network & Internet of Things team. Roles and Responsibility– Training/installations/demonstration/projects and developments in Wireless Sensor Network & Internet of Things team. Programming languages– C Python. Educational qualification– B.E in Electronics and Electricals from Global Academy of Technology, Bangalore.

Dr. Pushpa S. K
B.E., M.E. Ph.D.,
Associate Professor,
**Dept. of Information Science & Engineering, BMSIT, Yelahanka,
Bangalore**



Dr. Pushpa S. K. received her Bachelor's Degree in Computer Science and Engineering from Bangalore University, Bangalore, Karnataka, India during the year 1995 and M.E in Computer Science and Engineering from Bangalore University, Bangalore, Karnataka, India during the year 2004. Currently Dr. Pushpa S.K is working as an Associate Professor in BMSIT & M, Dept. of ISE, Bengaluru. She is having 16+ year of teaching experience. She is having 8 Journal papers & 5 International Conference papers in her credit. She is life member of professional bodies like ISTE, ISC & IEEE member. Her areas of interests are Wireless Sensor Networks, Big Data.

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Prof. Veena N

M.Tech, Ph.D, LMISTE

Asst. Professor

**Dept. of Information Science & Engineering, BMSIT, Yelahanka,
Bangalore**



Prof. **Veena N** has completed her B.E from Basavakalyan Engineering College, Basavakalyan. and M. Tech from EPCET ,Bangaluru and Pursuing Ph. D from VTU, Belagavi.

She has published more than 5 technical papers in various International journals. She has trained various students in companies like Wipro, Siemens, SAP Labs etc,. on various courses such as C, Software Engineering, DBMS, IoT etc,.. She is a Life member of Indian Society for Technical Education, At present she is working as an Asst.Professor in BMSIT& M, Bengaluru.

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Prof. Gireesh Babu C N

B.E., M.Tech. (Ph.D.,)

Assistant Professor,

Dept. of Information Science & Engineering, BMSIT&M, Bangalore



Prof. Gireesh Babu C.N. received his Bachelor's Degree and M.Tech in Computer Science and Engineering from Visvesvaraya Technological University, Belagavi, Karnataka, India during the year 2009 and 2012 respectively. He has published more than 15 technical papers in various National &International Conferences and 10 papers in Journals. He has actively involving in organizing various technical talks, workshops and conferences. He has teaching and Industrial experience of more than 5 years.

He is a Life member of Computer Society of India and Indian Society for Technical Education. At present he is working as an Assistant Professor in BMSIT& M, Bengaluru. His areas of interests are Smart Networks– IOT, Big Data and Cloud Computing.

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Prof. Chandrashekar T

B.E., M.Tech. (Ph.D.,)

Assistant Professor,

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Mr. Chandrashekhara K. T received his Bachelor's Degree in Computer Science and Engineering from Visvesvaraya Technological University, Belgaum, Karnataka, India during the year 2002 and M. Tech in Computer Science and Engineering from VTU, Belgaum, Karnataka, India during the year 2008. Currently Mr. Chandrashekhara K. T is working as an Assistant Professor in BMSIT, Dept. of ISE, Bengaluru. He is having 6+ year of teaching experience and 3+ years of industry experience at Intellinet Technologies, Bengaluru and Wipro Technologies Ltd. Bengaluru. He is having 7 Journal papers in his credit. He is member of professional bodies like ISTE, CSI. His areas of interests are Smart Networks–IOT, Big Data and Data Mining.

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Prof. Vinutha K

B.E., M.Tech. (Ph.D.,)

Assistant Professor,

Dept. of Information Science & Engineering, BMSIT&M, Yelahanka, Bangalore



Vinutha K is working as Assistant professor in Dept of ISE, BMSIT&M. she has completed her B.E in Channabasaveshwar Institute of Technology Tumkur in 2011 and M.Tech from AMC Engineering College 2013 in CSE. She is having 4.5years of teaching experience and pursuing research in the field of prediction models using Machine learning. Her area of interest is Machine learning and Data mining. She has published 10+ research papers in various International Conference and Journals and delivered 7+ expert talks on various topics of Machine learning, python and data mining.

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Dr. Usha B A
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Dr. Usha B A has completed her B.E from RGIT, Bengaluru and M. Tech from RVCE, Bengaluru and Ph. D from Department of CSE R & D Centre, VTU, Belagavi . She obtained her Ph.D degree in the year 2016.

She started her carrier as Lecturer in the Dept. of CSE from 2006 to 2010 in R V College of Engineering. Started working as Asst. Professor in the Dept. of CSE from 2010 to 2018. She has published more than 6 technical papers in various National & International Conferences and 16 papers in International Journals. She also has book chapter publication in reputed organization. She has actively organized various technical talks, workshops and conferences. She has worked in multidisciplinary consultancy projects. She has professional

membership in IEEE. Currently she is an Associate Professor & HoD in the Dept of ISE, BMSIT&M.

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Dr. Anupama. H.S

B.E., M.Tech. Ph.D.,

Associate Professor,

Dept. of Computer Science & Engineering, BMSIT, Yelahanka,
Bangalore



Dr. Anupama. H.S has completed her B.E from SIT, Tumkur and M. Tech from Jawaharlal National College Of Engineering, Shimoga, and Ph. D from VTU, Belagavi .

She started her carrier as Asst. Professor in the Dept. of CSE from 2005 to 2018 in R V College of Engineering. She has published more than 6 technical papers in various National &International Conferences and 16 papers in International Journals. She also has book chapter publication in reputed organization. She has actively organized various technical talks, workshops and conferences. She has worked in multidisciplinary consultancy projects. She has professional membership in IEEE. Currently she is an Associate Professor in the Dept. of CSE, BMSIT&M.

Dr. C.S.Mala

B.E., M.Tech. Ph.D.,

Professor,

Dept. of Telecommunication Engineering, BMSIT, Yelahanka,
Bangalore



She started her carrier as Lecturer in the Dept. of ECE from 1987 to 1993 in SIT Tumkur. Rural Engineering College (REC) Hulkoti. From August 1993 to December 1994, From March

2001 to November 2003 Post held: Senior Manager, Training Division of Manvish Infotech Limited, Bangalore. From November 2003 to August 2004 Headed Electronics and Communication Department of GMIT, Davangere. From August 2004 to June 2006 Worked as Assistant Professor and Head of Electronics and Communication Department of STJIT, Ranebennur. From August 2006 to June 2007: Assistant Professor in E&C Department of RV College of Engineering, Bangalore. From July 2007 to August 2008 Professor in E&C Department of Don Bosco Institute of Technology. From Feb 2009 to August 2013: Associate Professor and HOD, Department of ECE, BMSIT, Bangalore. From Sept 2013 till date: Associate Professor and HOD, Department of TCE, BMSIT, From August 2018 to Jan 2019 Professor and HOD, Department of TCE, BMSIT, Bangalore, She has published more than 9 technical papers in various National & International Conferences and 13 papers in International Journals. She also has expert talks delivered and external world interactions more than 9 in various organization.. She has actively organized various technical talks, workshops and conferences. She has worked in multidisciplinary consultancy projects. Currently she is an Professor in the Dept. of TCE, BMSIT&M.

About Workshop

Departments of ISE, CSE and TCE , BMSIT&M has organized a National Level Faculty Development Programme on Machine Learning for IoT Applications from 28th January 2019 to 1st February 2019. Around 30 faculties from various colleges had been participated in the FDP. The Inauguration started at 10.00 am and the occasion was graced by the presence of our beloved principal Dr. Mohan Babu G.N , Chief guest Mr. Buddhabeddas, Senior Vice President JMR InfoTech, Vice Principal Dr.Annamma Abraham , all HoDs and faculty. The event started with traditional way of lighting of the lamp.

Chief Guest Mr. Buddhabeddas quoted that Human becomes immortal after 2045 and by the quotes of an American writer “once the human invented a super intelligent machine that was his last invention” after that the machine itself upgrades in fast pace. He also mentioned that Machine learning and IoT becomes necessary technology for human life.

Principal Dr. Mohan Babu G.N addressed the gathering and mentioned that IoT applications not belongs to one discipline it has its root in all disciplines like physics, chemistry, civil, mechanical and so on. He also insisted that we as teachers should not identify the technology after industry people start using that and trained ourselves , we should be pioneers to predict the future technology and trained ourselves before it comes to industry usage.

Dr. Annamma Abraham, vice principal congratulated for the first FDP initiated for the current year and she mentioned whatever technology we learn should positively affect the other person by any means. The event concluded with Vote of Thanks and National Anthem.



Day-1

After the keynote address the session held by Dr. Pushpa S.K on 28th Jan 2019, the topic Introduction to machine learning for IoT application, she addressed about basics of machine learning algorithms and its types, idea behind machine learning, need for IoT, applications of IoT, and future scope of IoT.

Prof. Veena N, delivered an afternoon session on 28th Jan 2019 introduction to Embedded systems, its applications and slowly introduced participants to basic components of IoT, how to configure Raspberry Kit. A hand on session was conducted on how to install Operating System Raspbian on SD Card. Making a minicomputer using the RaspberryPi Kit. Executing simple programs such as C, C++, Python, and Java. Discussed the various applications.



Prof. Veena N explaining to participants

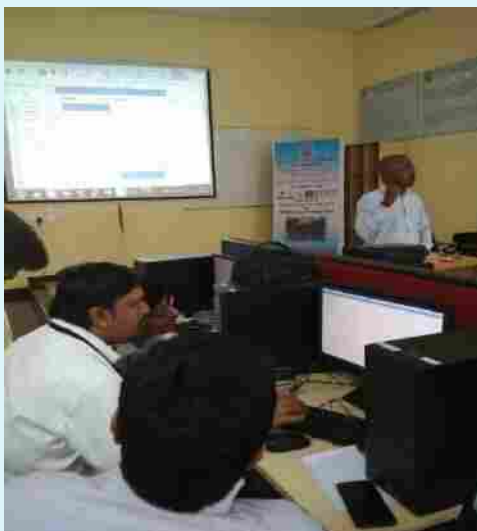
Day-2

A quiz has been conducted based on the previous day session to brush up the contents discussed on day-1 participants were actively involved in the quiz.



After completion of the quiz the session was started by external resource person Mr. Arun and Team explain the Overview of DHT11 Sensor briefly, How DHT11 Sensor works and hands on the Real time applications using a DHT11, LED and Raspberry pi.

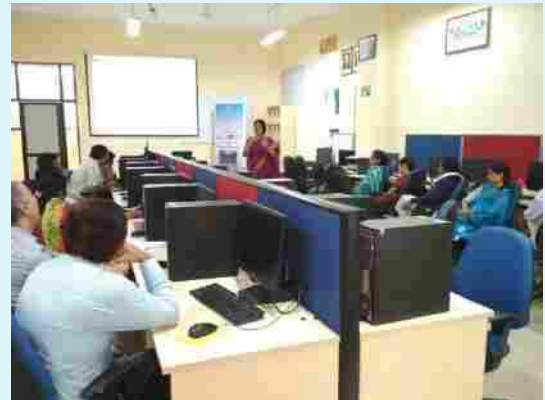
Afternoon session he explain about the topic Introduction to IoT , IoT communication protocol. The Internet of Things (IoT), is based on the networking of things. In a nutshell, Internet of Things is defined as a “proposed development of the Internet, in which everyday objects have network connectivity, allowing them to send and receive data.” And after that hands on the IoT Applications using DHT11, Raspberry Pi, LED and smart phones.



Day-3

A quiz has been conducted based on the previous day session to brush up the contents discussed on day -2, participants were actively involved in the quiz.

After completion of the quiz the session was started by Dr. Mala C S, about Installation of IDE for Arduino. Addressed about Arduino pin details and its connectivity. Followed by hands on Arduino



Dr. Mala C S explaining about Arduino

Dr. Usha B A delivered a talk on the topic “Security and Privacy Issues in IoT”. Also explained about how the security and privacy measures are taken into consideration for IoT Applications.



Dr. Pushpa S. K Welcoming Dr. Usha B A

Dr. Anupama H S delivered a talk on the topic “ANN and Backpropagation Algorithms”, she highlighted mathematical concept behind Backpropagation with an example which in turn helps in their research.



Day-4



A quiz was conducted based on the contents discussed on the previous day; participants were actively involved in the quiz.

After completion of the quiz the session was started by Prof. Gireesh Babu delivered a talk on the topic “KNN algorithm with Iris data Set”



Prof. Chandrashekhara K T delivered a talk on the topic “Naive Bayes algorithm”

Prof. Vinutha K, delivered a talk on, k-means algorithm and its applications, with real world examples . Hands on session was conducted on “k-means for fraud detection” was done using python.



Prof. Vinutha K discussing about k-means algorithm

Day-5

The session was started by Prof. Praveen A L on 1st Feb 2019, shared his experience on IPR related issues for Information Science and Computer Science projects.

Afternoon session started by Dr. Vijay Mishra from IISc Bengaluru, shared his experience with faculty on various sensor types used in IoT applications and research issues for IoT.



Dr. Manjunath T N welcoming Dr. Vijay Mishra for the session

In valedictory session the chief guest Dr. Vijay Mishra distributed certificates to all the participants.





Gallery





Quiz Questions

1. Does Raspberry Pi need external hardware?
 - a) True
 - b) False
2. Does RPi have an internal memory?
 - a) True
 - b) False
3. How power supply is done to RPi?
 - a) USB connection
 - b) Internal battery
 - c) Charger
 - d) Adapter
4. What is the Ethernet/LAN cable used in RPi?
 - a) Cat5
 - b) Cat5e
 - c) Cat6
 - d) RJ45
5. Which instruction set architecture is used in Raspberry Pi?
 - a) X86
 - b) MSP
 - c) AVR
 - d) ARM
6. What is the default user in Debain on Raspberry Pi?
 - a) Default
 - b) User

- c) Pi
- d) Root

7. What are the distributions are supported by raspberry Pi?

- a) Arch Linux
- b) Debain
- c) Fedora Remix
- d) Arch Linux, Debain, and Fedora Remix

8. What bit processor is used in Pi 3?

- a) 64-bit
- b) 32-bit
- c) 128-bit
- d) Both 64 and 32 bit

9. WiFi is not present in which of the following models?

- a) Raspberry Pi3
- b) Raspberry Pi Zero WH
- c) Raspberry Pi Zero W
- d) Raspberry Pi Zero

10. which of the following gives life to Raspberry Pi?

- a) Hardware
- b) Software
- c) Both hardware and software
- d) Firmware

11. SD card is present in all the models

- a) True

b) False

12. Machine Learning algorithms examines large and different types of data to uncover hidden patterns, correlations and other insights.

a) True

b) False

13. It is the process of applying the ----- and ----- to take appropriate decisions on the underlying data by machines

14. Weather prediction is an example of

a) Supervised learning

b) Unsupervised learning

c) Reinforcement learning

d) None of the above

15. Gaming is an example of

a) Unsupervised learning

b) Reinforcement learning

c) Supervised learning

d) All the above

16. Which is the digital pin connected to the onboard LED

a) PIN6

b) PIN13

c) PIN 4

d) PIN 9

17. Number of analog pins on arduino Uno

a) 6

c) 8

d) 10

e) 12

18. What is the micro controller used in Arduino Uno?

- a) ATmega328p
- b) ATmega256p
- c) ATmega32114p
- d) AT91SAM3x8E

19. What are the two functions of Arduino IDE?

- a) Build() and loop()
- b) Setup() and build()
- c) Setup() and loop()
- d) Loop() and build()

20. Number of digital pins on the Uno board?

- a) 12
- b) 14
- c) 20
- d) 16

21. PIR stands for?

- a) Passive Induced Resistor
- b) Power Induced Resistor
- c) Passive Infra Red
- d) None of the above

Feedback questions Machine Learning for IoT Application

1. The Program was well planned within the allotted time

- Excellent
- Very Good
- Good
- Fair
- Poor

2. The resource persons were good communicators.

- Excellent
- Very Good
- Good
- Fair
- Poor

3. The material was presented in the organized manner.

- Excellent
- Very Good
- Good
- Fair
- Poor

4. The resource persons were knowledgeable on the topic

- Excellent
- Very Good
- Good
- Fair
- Poor

5.I would be interested in attending a follow up, more FDP's@BMSIT&M.

- Excellent
- Very Good
- Good
- Fair
- Poor

6.Faculties and hospitality

- Excellent
- Very Good
- Good
- Fair
- Poor

7.Able to apply contemporary techniques learnt in the software development

- Excellent
- Very Good
- Good
- Fair
- Poor

8.Able to analyse the impact of machine learning Algorithms applications like crime detection

- Excellent
- Very Good
- Good
- Fair
- Poor

9. Able to use hardware tools like raspberry pi and Arduino with machine learning Algorithms applications for societal and environmental application

- Excellent
- Very Good
- Good
- Fair
- Poor

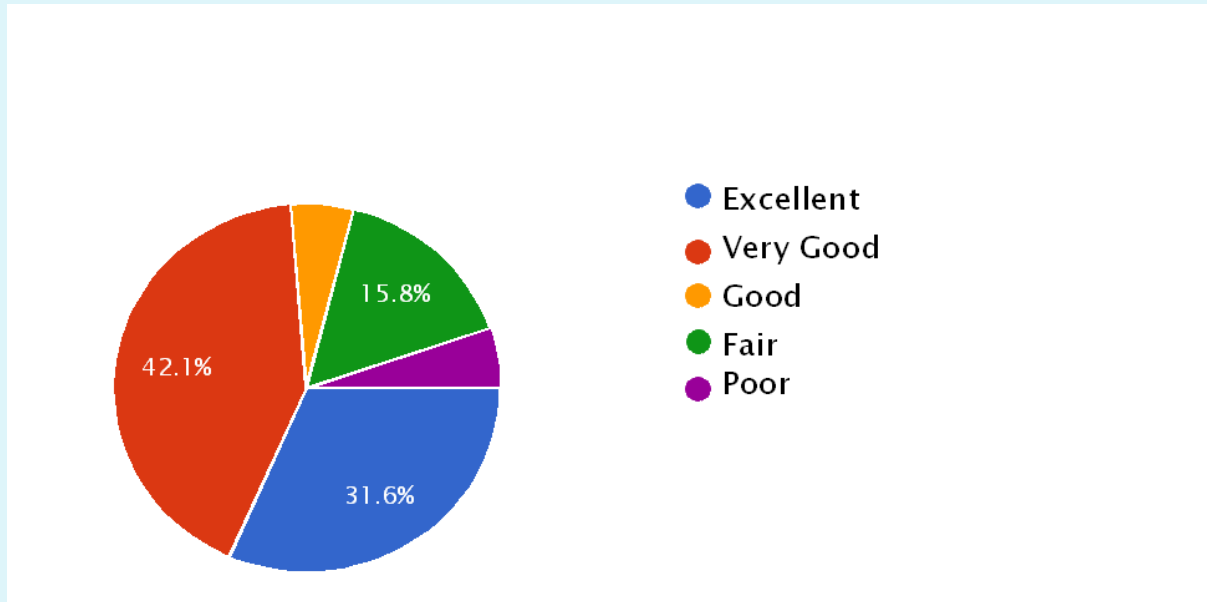
10. This FDP helps you to recognize the importance of machine learning concept for IOT which help you to engage in life learning

- Excellent
- Very Good
- Good
- Fair
- Poor

Forms response chart.

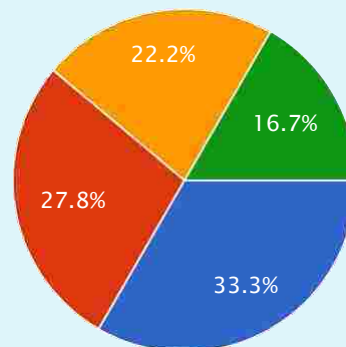
1.The Program was well planned within the allotted time.

Number of responses: 21 responses.



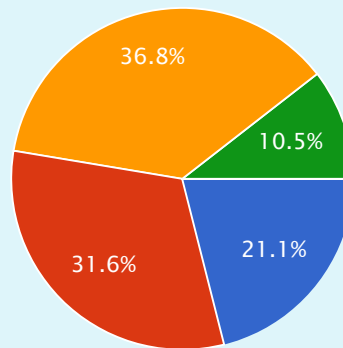
2. The resource persons were good communicators.

- Excellent
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- Poor



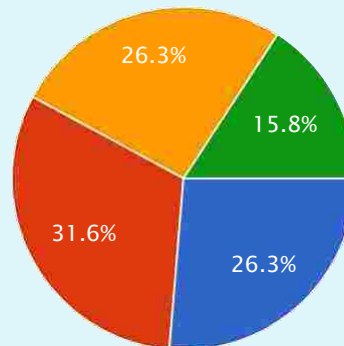
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- Excellent
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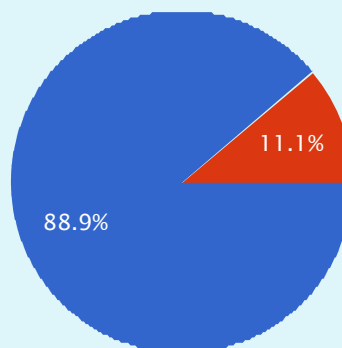
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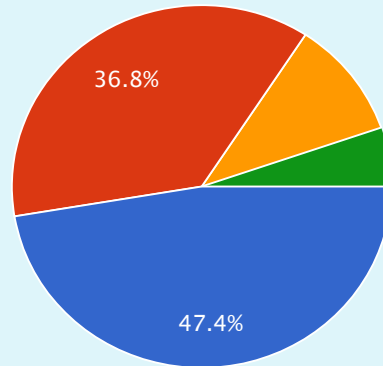
5. I would be interested in attending a follow up, more FDP's@BMSIT&M.

- Yes
- No



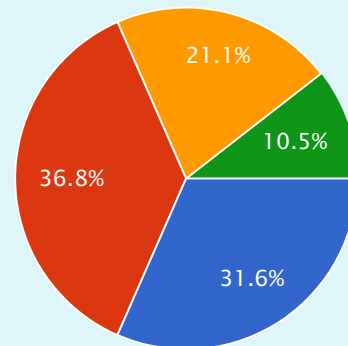
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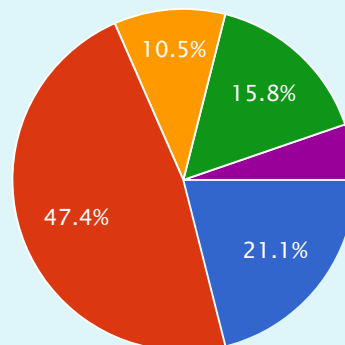
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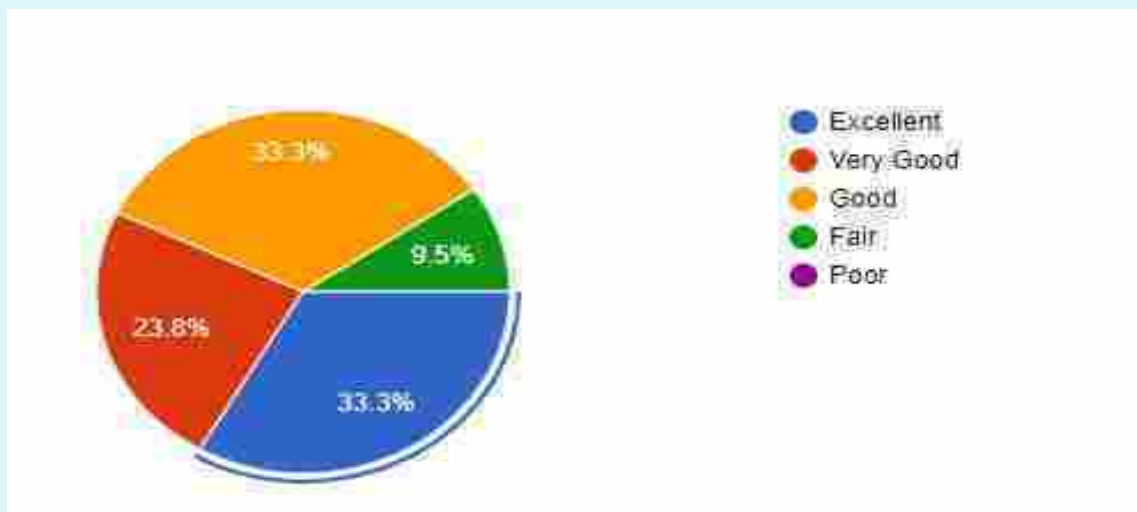


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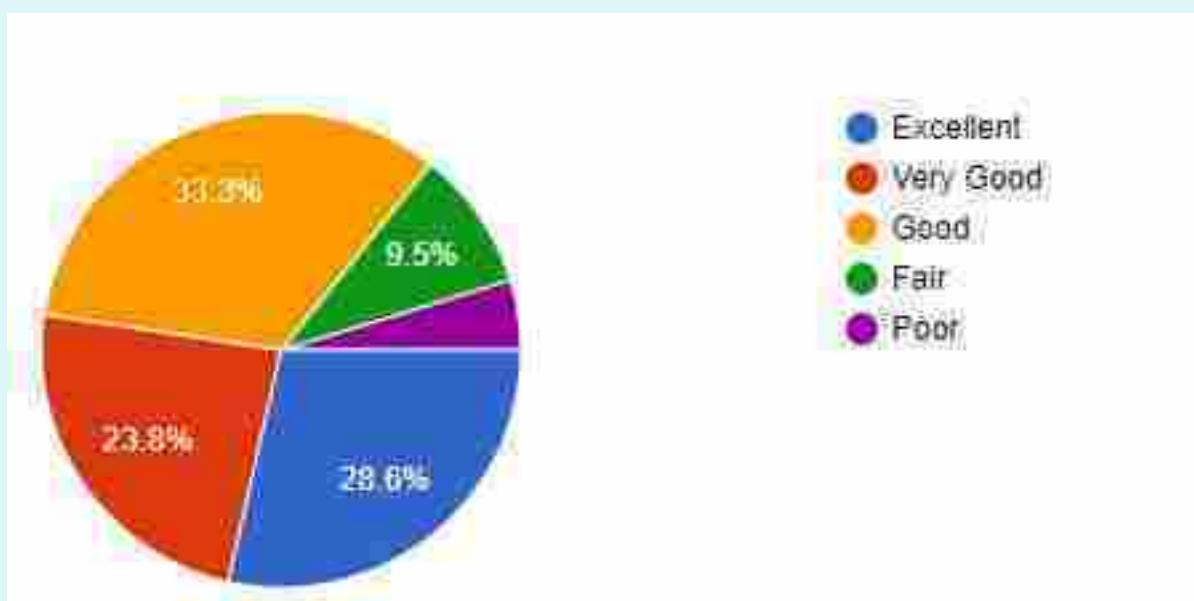
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10. This FDP helps you to recognize the importance of machine learning concept for IOT which help you to engage in life learning



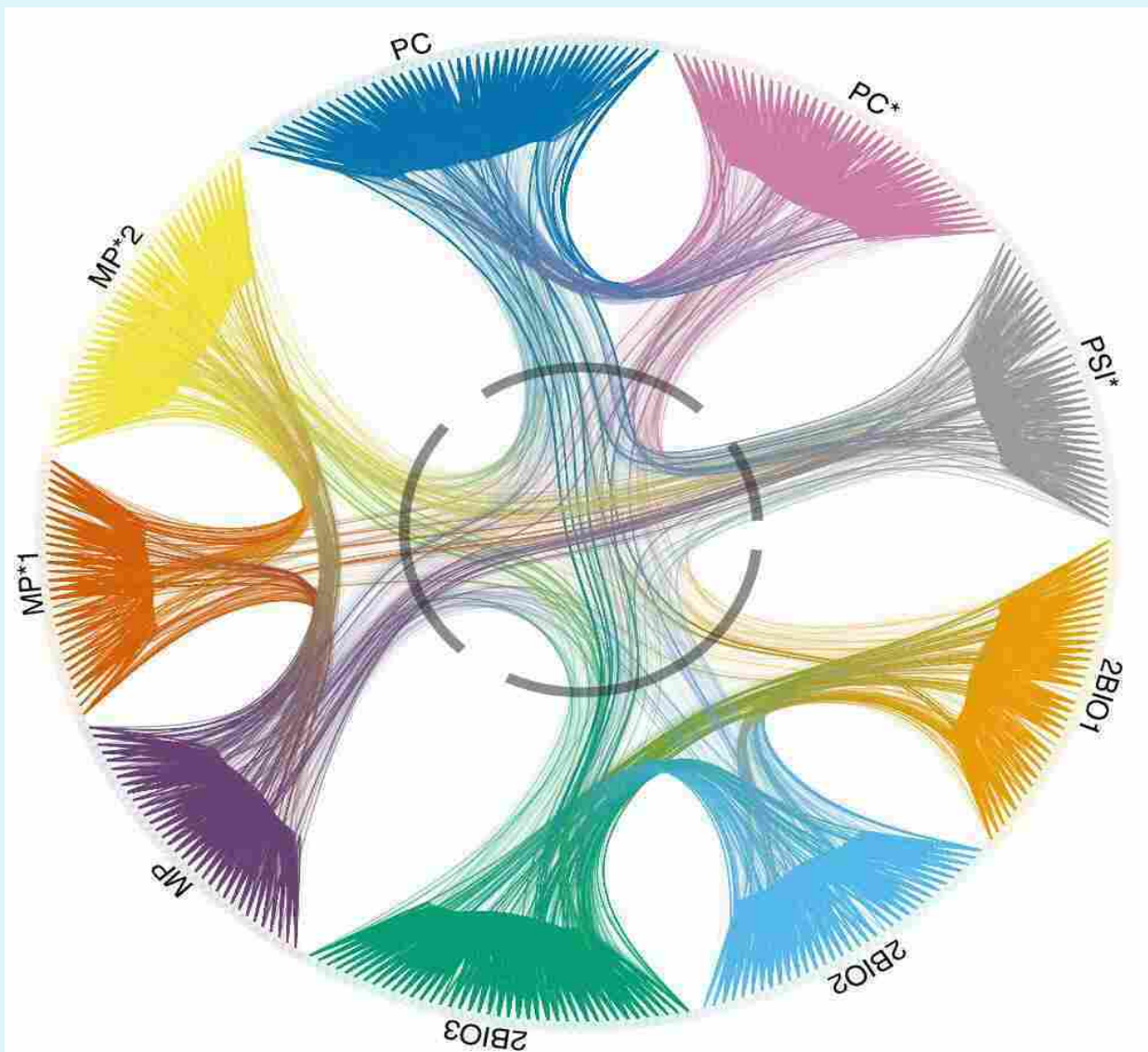
Target:

Target:60% of participant's gave feedback above 70%: Attainment level 3

Target:60% of participant's gave feedback above 65%: Attainment level 2

Target:60% of participant's gave feedback above 60%: Attainment level 1

This activity was conducted to benefit the faculty about the usage of Machine learning for IoT applications. Based on the survey more than 60% of the participants are able to use arduino, raspberry pi and python language at very good level (level 3). Hence the Program outcome has attained.

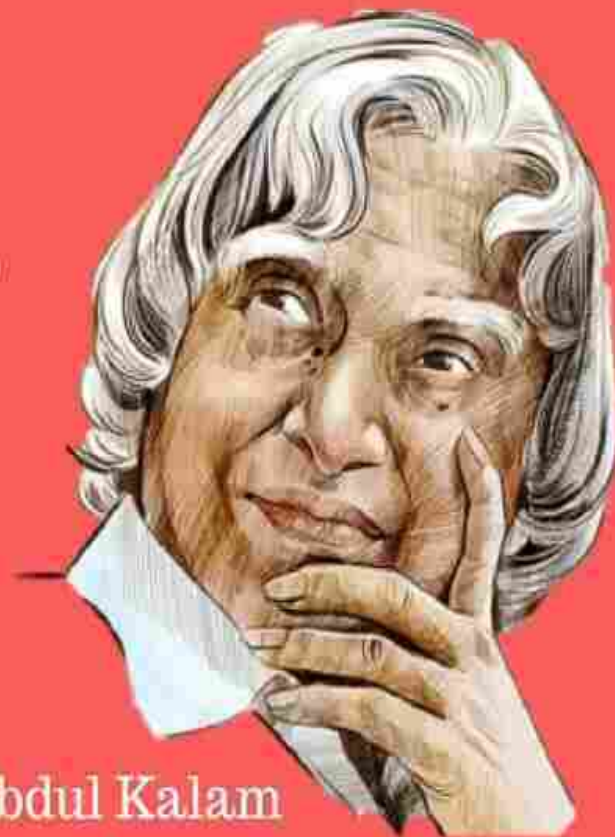


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“

LIFE and TIME are the world's best Teachers. Life teaches us to make good use of TIME and TIME teaches us the value of LIFE.



— Dr. A.P.J. Abdul Kalam