

Report

on

Online Internship

on

Python and Latex

from

28th March to 8th April, 2022

by

The Department of

Electronics and Telecommunication Engineering

BMS College of Engineering

Bengaluru – 560019

A DSR Activity

***DSR - Department Social Responsibility and contributing
to a social cause through Dr S K Shivakumar Memorial
Trust***

Event Brochure



<https://iucee.org/>



<https://www.iete.org/>



<https://bmsce.ac.in/>



<http://www.bmsceieee.com/home>



<https://www.ieee-tems.org/>

The Department of Electronics and Telecommunication Engineering
B.M.S. College of Engineering, Bengaluru

In association with IUCEE (Indo Universal Collaboration for Engineering Education)
and IEEE TEMS BMSCE Student Chapter and IETE Bengaluru Centre
organizes

Two weeks Internship

(also known as Workshop/ Value Added Program)

on

Introduction to Python and LaTeX Programming

Both are Open Source Tools
in online mode

Date: 28th March, 2022 to 8th April, 2022; Timing: 5:00 pm to 8:00 pm
(30 hours Direct contact and 30 hours of self-study)

Course Overview

Introduction to Python Programming
Python code to plot of Signals/Functions; perform operations on Signals and Functions
Python code for Probability Distribution functions (Discrete and Continuous)
Python code to plot of Frequency response, Pole-zero plot for a given transfer function
Introduction to LaTeX and concept on LaTeX Installation
Document preparation using LaTeX concepts
To prepare professional documents (Project report, Thesis) using LaTeX

*Open to UG and PG Students, Research Scholars;
Pursuing Engineering, Management, Science, or any
other Program; from all Colleges (including BMSCE)*

**Certificates will be provided to all who
successfully complete the course
(Score more than 60% in Quiz/Assignments)**

Deadline for Registration: 26th March, 2022
Nominal Registration fee: Rs 300/-
Register: <https://forms.gle/ybbSGUkTn5mh9uNf6>

*This program is our **Second Program**, as part of our **Department Social Responsibility (DSR)**
Social Responsibility in sharing knowledge and Social Responsibility in contributing to a Social Cause
through Dr S K Shivakumar Memorial Trust (<https://sksmemorialtrust.com/programs>)*

Patrons

Dr S Muralidhara, Principal
Dr Suresh R Reddy, Vice-Principal (Admin)
Dr Bheemsha Arya, Vice-Principal (Academics)
Dr Krishna Vedula, Executive Director, IUCEE
Dr Sudheendra Koushik, Vice-President, TEMS Global
Dr Ashwini Appaji, Chair, IEEE TEMS, Bengaluru Chapter
Sri C Satyanandan, Chairman, IETE, Bengaluru Centre

Resource Persons

Dr B Kanmani
Dr Balachandra K
Dr Prasannakumar M K
Student Coordinators
Sharanya S, 81972 12486
Ananya B R, 80884 81987

Faculty Mentors

Dr N Srinivasa Rao
HOD-ETE
Dr Manjunath P S
ETE, TEMS Coordinator
Archana K
ETE, IETE Coordinator
Shreenivas B
ETE, Member DPC

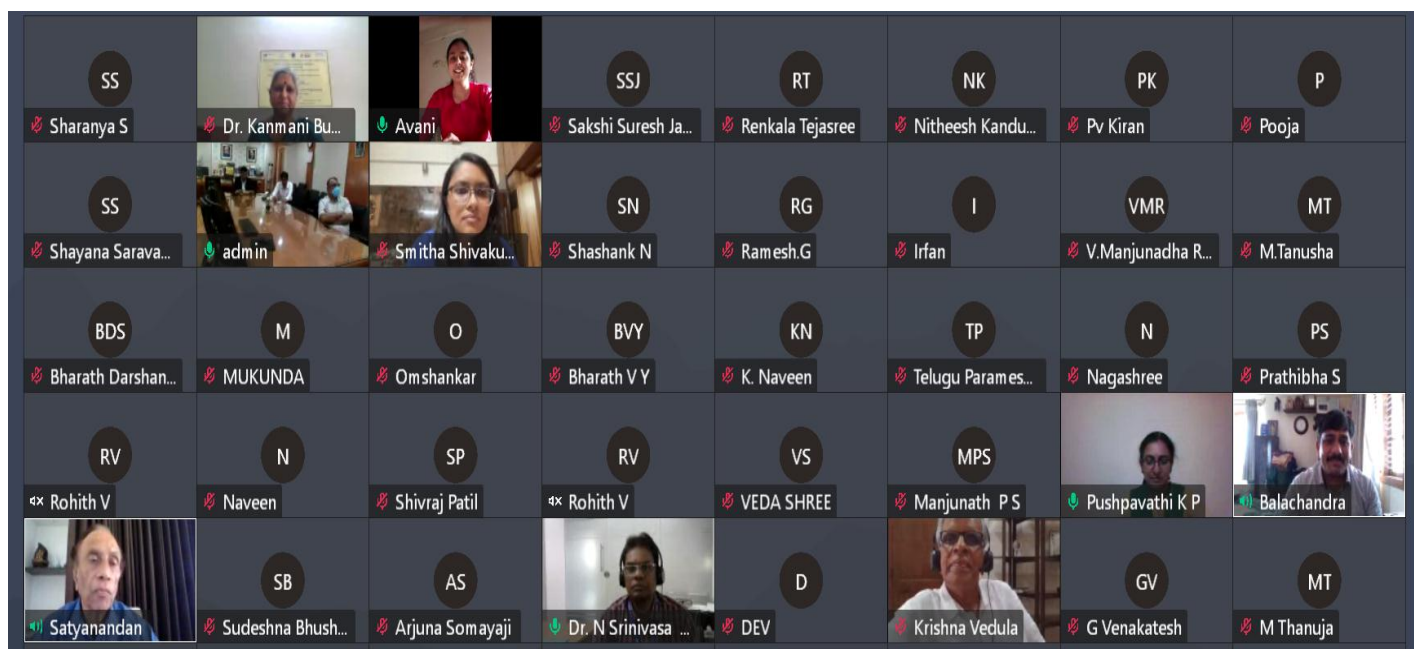
*An active G-mail account is required for Python Co-Lab;
No prior knowledge of Python or LaTeX required
Experience with any programming language useful*

Mode of Payment

Account name: HOD, Telecommunication
Account Number: 20274184938
Indian Bank IFSC: IDIB000B607
(note First FOUR characters are alphabets)
One can also pay directly in the Indian Bank in BMSCE
campus. CASH payments are not accepted

Note: The brochure was revised, as it was decided to utilize the revenue generated towards a social cause, and the activity was identified as that of the Department Social Responsibility (DSR) and Social responsibility in sharing knowledge and social responsibility in contributing to a social cause through Dr S K Shiva Kumar Memorial Trust.

Inaugural Event



The Internship commenced with the Invocation song by Avani of 4th year. This was followed by welcome speech and compering to all our dignitaries and participants by Prof. K P Pushpavathi.

This was followed by the oration of all dignitaries:

1. HOD, ETE, N Srinivasa Rao: Welcomed all the participants. Informed about ETE organizing workshops/internship every year. Expressed that this two weeks online internship on python and latex was chosen such that, it benefits to all the participants and can gain enormous knowledge in this field.

2. Principal, Dr. S. Muralidhara: Acknowledged the department of ETE for the conduction of Python and Latex Internship. Expressed the facts about how Python and latex is prominent in the real-world. Informed students that this is a great opportunity to learn python and latex. Acknowledged and congratulated department.

3. Executive Director, IUCEE, Krishna Vedula: Expressed the IUCEE mantra: “I am teaching and they are learning”. Informed participants that the effective way of learning is by hands on experience of many project. The main focus on project of the participants will make them better engineers. Acknowledge department for conducting this workshop.

4. IEEE TEMS, Dr. Manjunath P S: Expressed the main vision of IEEE TEMS. Informed about IEEE TEMS activities: essential management and leadership knowledge. Informed the values of IEEE.

5. IEEE TEMS, Bengaluru Chapter, Dr. Ashwini Appaji: Acknowledged ETE for conducting the internship which would help participants in great way.

6. Chairman, IETE, Sri C Satyanandan: Expressed gratitude to all the organizer. Acknowledged the fact about being happy to be a part of BMSC group of institute. Informed that IETE comprised of students, faculty and all professionals. Expressed satisfaction about ETE for conducting two week internship. Expressed how the course fee was affordable.

7. Dr. Shivakumar Memorial Trust, Alumni of ETE, Smitha Shivakumar: Expressed satisfaction about fee of internship and acknowledged that all the participants can gain knowledge about python and latex. Informed all that the revenue generated from the internship would be utilized for scholarships to student of lower income category near kolar. Informed all the participants that this is a great opportunity to learn. Expressed gratitude for ETE for helping their Memorial trust.

8. Dr. Kanmani B: Acknowledged Principal, vice-principal and HOD, ETE for supporting and making this event happen. Expressed that each and every professionals supported for the conduction of internship.

Acknowledged about good professional environment of BMSCE. Expressed on good values, dedication and contribution for this internship.

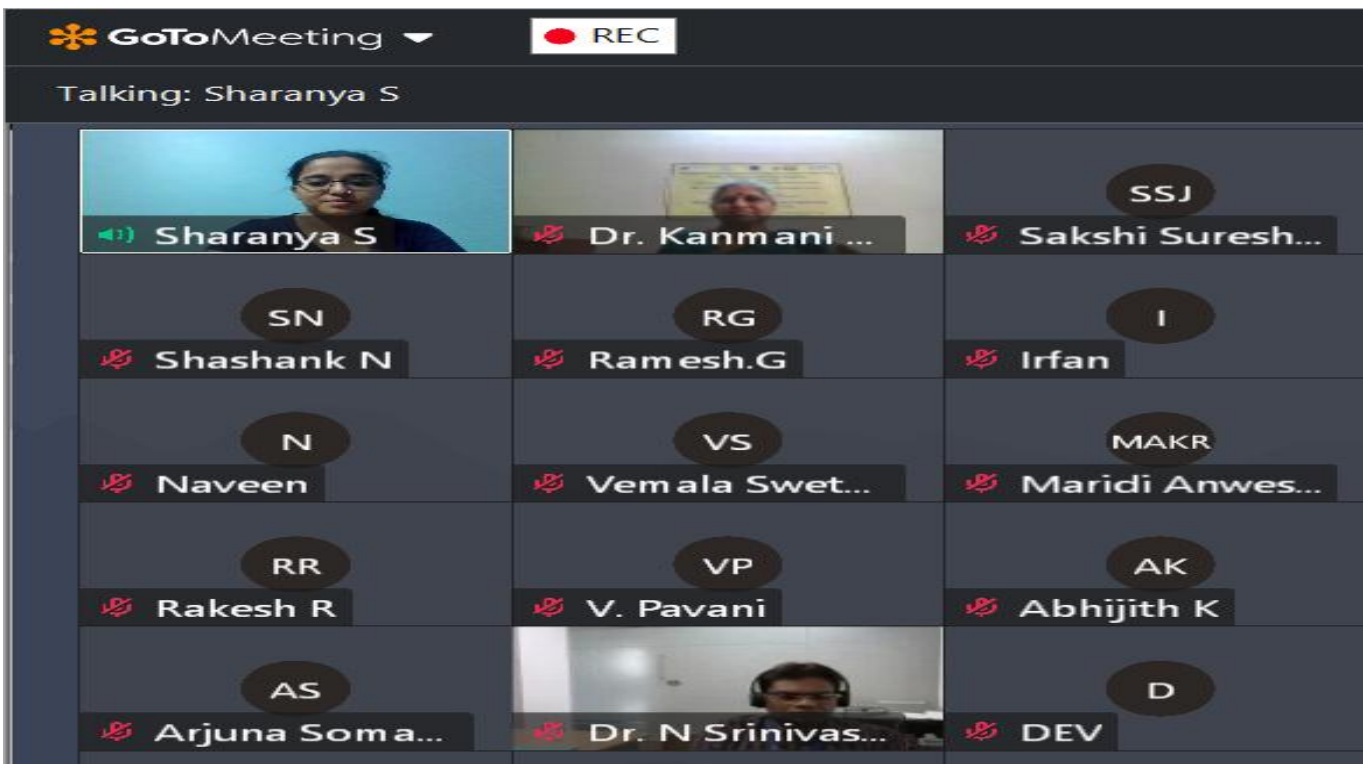
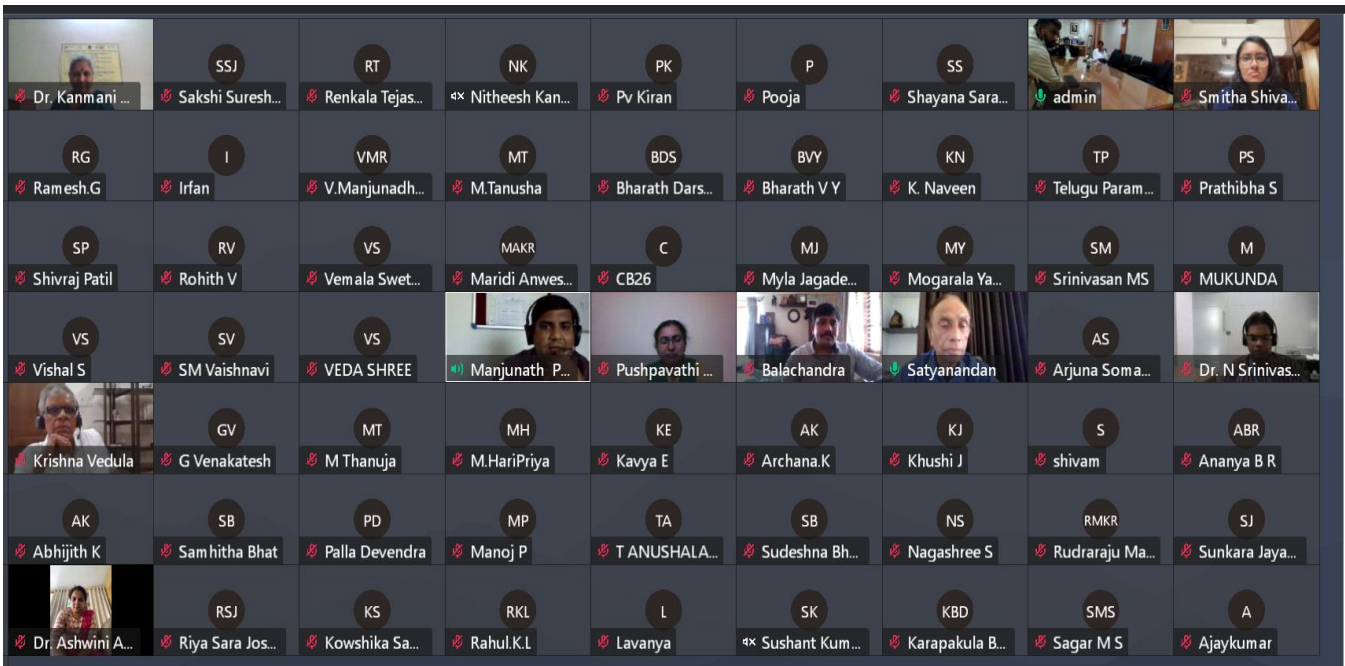
Informed that last event was free of cost hence, none of the participants showed up later. Therefore, minimal fee is being charged for the python and latex workshop.

Acknowledged the support extended from Goto-Meeting, the special COVID package to the college, and has made the online teaching professional and convenient.

Mentioned that there shall be Quiz/Assignments and successful completion is essential towards receiving the certificate. The class notes, relevant content and the Python code shall be shared.

Acknowledged the support and continuous active engagement of the two student volunteers: Ananya and Sharanya, both students of the VI semester. Thanked all the participants for joining the workshop.

9. Dr. Balachandra K: Expressed gratitude towards bmsce management for giving opportunity for conducting this value added course and internship on Python and Latex. Informed participants that Dr. Kanmani B would be handling basics of python. Informed that Dr. Balachandra K would be handle all those competitive programming which would help in the interview. Expressed that throughout the internship – sharing of knowledge on the programme which would have been learnt will be taught which would help in cracking interview. Topics would be handled in the course of Latex are: In documentation – word and latex. In development of latex – reports, articles, documents, thesis, graphics etc.



The inaugural session concluded with the Vote of Thanks by the Student coordinator **Sharanya S**.

LIST OF COLLEGES PARTICIPATING

1	Acharya Institute of Technology
2	Anamachraya Institute of Technology and Science's
3	B N M Institute of Technology
4	B M S College of Engineering
5	Chadalawada Ramanamma Engineering College, Tirupati
6	Christ University
7	Dayananda Sagar College of Engineering
8	Don Bosco Institute of Technology
9	Dr Ambedkar Institute of Technology
10	Global Academy of Technology
11	Government Engineering College, Ramanagara
12	Government SKSJTJ
13	HKBK College of Engineering
14	KLE Technological University
15	Knowledge Institute of Technology
16	KS Institute of Technology, Bengaluru
17	KS School of Engineering and Management
18	Maharaj Vijayaram Gajapati Raj College Of Engineering
19	National Institute of Technology Tiruchirappali
20	PES University
21	REVA University
22	RNS Institute of Technology
23	S J C Institute of Technology
24	S. G. Balekundri Institute of Technology.
25	Vidya Vardaka College of Engineering
26	VTU research Centre

LIST OF PARTICIPANTS

SL.NO	NAME OF THE PARTICIPANT	COLLEGE	USN
1	SANTHOSH KUMAR G	Acharya Institute of Technology	1AY11EC101
2	Viswanth	Anamachraya institute of technology and science's	19701A0352
3	Samhitha Bhat M	B N M institute of technology	1BG19EC090
4	SUSHANT KUMAR		1BM20ET065
5	Manoj P		1BM20ET023
6	Arjuna Somayaji C S		1BM18TE011
7	Sudeshna Bhushan		1BM19CS189
8	Ambika K		Faculty
9	Archana K		Faculty
10	Shivam sharma		1BM19EC153
11	Hrishikesh Sandilya	B M S COLLEGE OF ENGINEERING	1BM19ET091
12	Riya Sara Joseph		1BM18TE065
13	D YASHWANATH		1BM18AS018
14	G A Bharath		1BM17TE016
15	Prithvi.J		1BM19CS122
16	Sagar M S		1BM19TE401
17	Rajkrishnan R		2021BMS01904
18	Omshankar naykar		1BM20ET030
19	Supriya R		1BM18TE053
20	Abhijith k		1BM19EC209

21	Dr. A. Pullareddy		CHDL405
22	Renkala Tejasree		18P11A0491
23	G Venkatesh		19P15A0407
24	M Thanuja		18P11A0456
25	Palle maneesh		18P11S0482
26	V.Manjunadha Reddy		18P11A04A5
27	Pachipala swathi		18P11A0478
28	Telugu Parameswar		18P11A04A3
29	Mutthinni Haripriya		18P11A0469
30	T NAGA CHAITHANYA		18P11A04A1
31	Pv kiran		18P11A0477
32	Patnam Lavanya		18P11A0487
33	Myla jagadeesh		18p11A0470
34	Kotakinda Naveen		19P15A0411
35	Karapakula Balaji Deekshitha		18P11A0445
36	supriya Voddiboina		18P11A04B1
37	S. Anuradha		18P11A0498
38	Y.VENKATA SURESH		18P11A04B4
39	V. Pavani	Chadalawada Ramanamma Engineering College, Tirupati	18P11A04A7
40	Velpula Navitha		18P11A04A9
41	Mogarala Yamuna		18P11A0464
42	Sunkara Jayasree		18P11A04A0
43	vemala swetha		18p11a04b0
44	Kamatam Vyshnavi		18P11A0441
45	Palla Devendra		18P11A0480
46	Suddula alekhya		18P11A0499

47	Kagitha swathi		18P11A0438
48	Maridi Anwesh kumar reddy		18P11A0463
49	R.Manoj kumar raju		18P11A0493
50	M. Bharath kumar naick		19P15A0414
51	Irfan Tapal Shaik		18P11A04A2
52	Elluri Venkateswara Reddy		18P11A0423
53	Nanda Kishore Pagadala		18P11A0479
54	Lavanya Vaikuntam		18P11A04A6
55	Allu Uday Kumar		18P11A0407
56	P.PAVITHRA		19P15A0415
57	Elluri Venkateswara Reddy		18P11A0423
58	Kandukuri Nitheesh kumar		19P15A0408
59	V MUKUNDA		19P15A0419
60	Revanuri Saranya		18P11A0492
61	Poojitha Mallem	Chadalawada Ramanamma Engineering College, Tirupati	19P15A0413
62	POTTELI JASWANTH		18P11A0489
63	Kavyasai Murikinati		18P11A0467
64	A Himagiri		18P11A0402
65	Akula. Venkata Kalyan		18P11A0403
66	Yarragudi Renu		18P11A04B5
67	Allu Dhana Lakshmi		18P11A0405
68	Lekkala sandya		18p11a0454
69	D vinod		18P11A0419
70	KATIKA BHANU PRAKASH		19P15A0409
71	GUNTI SREEDHAR		18P11A0434
72	P.dayasagarreddy		18P11A0484
73	Chinnareddygar Praveena		18P11A0418
74	Jagadeesh		18P11A0481
75	R.V Devendra Kumar		18P11A0490
76	Rahul Nakkaboina		18P11A0473
77	Chennareddy gowthami		18p11a0416
78	Bellam Lavanya		18P11A0415
79	Hebbare kalyani		18p11a0435
80	Balapanuru Sushmitha		18P11A0412

81	SHIVANANDA GS		1DA19ME109
82	Ajaykumar		1DA19ME009
83	Pooja G	Dr. Ambedkar Institute of technology Bengaluru	1DA18TE027
84	Bharath darshan s		1TU21ME006
85	Vedashree Chavan		1DA18TE048
86	Dev H Gowda		1DB20CS035
87	S M Vaishnavi		1DB19EC109
88	Shashank N	Don Bosco Institute Of Technology	1DB20EC402
89	Sakshi Suresh Jadhav		1DB20EC400
90	Nagashree S	Christ University	2147347 - PG
91	Khushi Jirawala	Christ University	2147345-PG
92	Bandi naveen gowd	Dayananda Sagar College of Engineering	21UGDS1870
93	Prathibha S	Government Engineering College Ramanagara	Faculty
94	Pavithra T	Government SKSJTI	1BM15PEJ07
95	Rohith V		1HK20EC041
96	Ramesh.G	HKBK College of Engineering	1HK20EC037
97	Mohammed Mudassir		1HK20EC025
98	Sahana R Hiremath		01fe20bce034
99	Madur Hiremath	KLE Technological University	01fe20bec013
100	Bharathi C		1GA19EC
101	AKSHAYA KR		1GA19EC012
102	Rahul.K.L	Global Academy of Technology	1GA19EC114
103	Kavya E		1GA19EE055
104	HARI SUNDAR S	Knowledge institute of technology	USN- 611220106030
105	KOWSHIKA SANKAR	Knowledge institute of technology	USN-611220106038
106	Vishal S	R N S Institute of Technology	1RN20EE050
107	Rakesh R	RNS Institute of technology	1RN20EE031

108	CHODIPILLI SIVAPRASAD		18331A0812
109	Kalla Bhagya Sri	Maharaj Vijay Ram Gajapati raj College of engineering	19331A0570
110	M.Tanusha		19331A0595
111	MANJULA K	S J C Institute of Technology	Faculty
112	Dilip Madappa	REVA University	R20EM030
113	Shayana Saravanakumar	PES University	PES1UG19BT046
114	Shivraj Balasaheb Patil	SGBIT	2BU19EC063
115	POOJA J	KS INSTITUTE OF TECHNOLOGY, BANGALORE	1KS19CS067
116	DVNSN MURTHY	VTU research Centre	1IS17PEA01
117	Prithvi BR	VIDYA VARDAKA COLLEGE OF ENGINEERING	4VV19EE039
118	Bhavana S	KS School of Engineering and Management	1KG19EC013
119	BHARATH V Y	NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI	213221005
120	Pratik patil	S. G. Balekundri Institute Of Technology.	2BU19EC042

PROGRAM SCHEDULE BROCHURE



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The Department of Electronics and Telecommunication Engineering
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Introduction to Python and LaTeX Programming

in online mode

Date: 28th March, 2022 to 8th April, 2022; Timing: 5:00 pm to 8:00 pm

(30 hours Direct contact and 30 hours of self-study)

Program Schedule

Date	Session – I (5:00 pm to 6:20 pm)	Session – II (6:40 pm to 8:00 pm)	Lab Examples
28.03.2022	Inauguration	Python – Introduction	Use as a calculator
29.03.2022	Python- Plot of Signals/Functions	Functions; Loops;	Plot a given equation; Obtain equation for given code
30.03.2022	Operation on Signals and Functions; Integration; Differentiation	Probability Functions; Discrete and Continuous	Plot a given signal/ Function; Perform specified operation
31.03.2022	Analog System Transfer Function: H(s)	Digital System Transfer Function: H(z)	Analyse the given system for stability and type of filter
<i>Online Open Resource Quiz/Assignment –I</i>			
01.04.2022	Audio Processing Using Python- I	Audio Processing Using Python – II	Assignment on Audio processing
04.04.2022	Introduction to Latex Latex Basics	First text document with latex Chapters and Sections	Developing Documents with Latex
05.04.2022	Interesting real world problems with Python to Test Aptitude - I	Mathematical equations with Latex –I	Generating given equations in Latex
06.04.2022	Interesting real world problems with Python to Test Aptitude –II	Mathematical Equations with latex – II (including Tables, Matrices, Figures)	Inserting equations, matrices, tables and figures in Latex
07.04.2022	Publications and Thesis with Latex -I	Publications and Thesis with Latex – II	Document in standard Conference/ Journal Template
<i>Online Open Resource Quiz/Assignment –II</i>			
08.04.2022	Including Latex in Python	Valedictory Ceremony	

NOTE: Securing more than 60% in the online Test/Assignment essential for Certification

CONTENTS COVERED DURING THE INTERNSHIP

Session (Date)	Topics Covered
Session -1 (28/03/2022)	<ol style="list-style-type: none">1. Introductions to python2. Importing Numpy lib3. Basic operations using python4. Printing constants using Numpy5. Trigonometric function6. Round Function7. Computing square root and power of a number8. Array in python9. Different concepts in array10. Use of np.arange11. Use of np.linspace12. Plot of signals<ol style="list-style-type: none">a. Sineb. Cosinec. Exponential Function
Session -2 (29/03/2022)	<ol style="list-style-type: none">1. Complex numbers2. Computing magnitude and phase of a complex numbers3. Computing real value of a number4. Logarithm function5. Anti-Logarithm function6. Defining of a function7. Use of the created function8. Loops in python9. Function for converting radians to degree10. Computing Sum of N numbers and Factorial of a number using loops11. Function to compute factorial of number12. Plot of different sine waves13. Plot of two signals using subplot14. Plot of sync function15. Plot of sigmoid function and square wave16. Fourier series using: 1. Addition of sine wave and 2. For loop16. Hearing an audio using sine wave

<p>Session-3 (30/03/2022)</p>	<ol style="list-style-type: none"> 1. plot a line $y = mx + b$ 2. cos hyperbolic function: $\cosh(x) = (e^x + e^{-x})/2$ 3. sin hyperbolic function: $\sinh(x) = (e^x - e^{-x})/2$ 4. tan hyperbolic function: $\tanh(x) = (e^x - e^{-x}) / (e^x + e^{-x})$ 5. plot a second order polynomial $= ax^2 + bx + c$ 6. Two methods for plotting circle of radius r 7. Function to convert a sinewave to a square wave 8. Product of two sine-waves: DSB-SC form of Amplitude modulation 9. Amplitude Modulation 10. Product of sinewave and a square wave: sine-wave is of higher frequency 11. Product of sinewave and a square wave: square-wave is of higher frequency 12. Function for differentiation 13. Function for integration 14. To plot integrated sinusoidal wave 15. Plot of Gaussian Function
<p>Session – 4 (31/03/022)</p>	<ol style="list-style-type: none"> 1. To find the Roots of the Polynomial 2. To plot the Roots of the Polynomial on the Graph 3. To obtain the Polynomial if the Roots are known 4. Polynomial Multiplication 5. Convolution using Polynomial Multiplication 6. Plotting of Analog and Digital Time Signals 7. Generation of Random Numbers 8. Generation of Binary Sequence 9. Generation of numbers to simulate the throw of a dice 10. Generation of noisy Sine wave using Sine wave 11. Generation of noisy Sine wave using Gaussian noise wave

<p>Session – 5 (01/04/022)</p>	<ol style="list-style-type: none"> 1. Plotting of the Impulse Response of the System using the concept of Laplace Transform 2. Plotting of the Pole - Zero plot of the System 3. Plotting of the Magnitude Response and the Phase Response of the System 4. To Compute the output for a given Sine Input 5. To Comment on the Stability of the System by Analyzing the Pole -Zero Plot 6. Examples for Fourier Series 7. Additional Examples in Continuous Probability Distribution 8. Additional Examples for Self-learning
<p>Session – 6 (03/04/2022)</p>	<p>Quiz -1</p>
<p>Session – 7 (04/04/022)</p>	<ol style="list-style-type: none"> 1. Stationary and non-Stationary Signals 2. Generating Single and Multi-tone audio Signals 3. Reading a Audio file and Playback 4. Plotting of the wave file 5. Importance of number of channels 6. Sampling Frequency in Audio Signals 7. Recording the audio and analyzing the Spoken words 8. Spectrum and Spectrogram of Audio and Speech Signals 9. Narrow band and Wideband Spectrograms 10. Voice and unvoiced Detection using Short time energy and Short time zero crossing rates 11. Computation of Pitch using Autocorrelation
<p>Session – 8 (05/04/022)</p>	<ol style="list-style-type: none"> 1. LaTeX Installation 2. LaTeX Documentation process 3. Text writing and compiling to get the output 4. Creation of DVI file

	<ol style="list-style-type: none"> 5. Basics of LaTeX and usage 6. Text Formatting in LaTeX 7. Font sizes, Numbers and bullets concepts in LaTeX 8. Real world problems with Python to test aptitude – I 9. Generation given equations in Latex
<p>Session – 9 (06/04/2022)</p>	<ol style="list-style-type: none"> 1. Calling or Referring of section in LaTeX 2. Concepts on: Customize items, Nested Lists 3. Insertion of image using LaTeX 4. Insertion of tables, rows and columns 5. Mathematical Equations using LaTeX 6. To insert inline mathematical equation use a pair of \$ symbols and write the equation between them 7. Python programming on concepts: MAX, Electric Bill 8. Python Programming on Bank Balance, Stair, Sum of digits 9. Inserting equations, matrices, tables and figures in Latex
<p>Session – 10 (07/04/2022)</p>	<ol style="list-style-type: none"> 1. Concepts such as Auto correlation, Equation with fractions, DFT, Square, Integration using LaTeX 2. Drawing of dots using LaTeX 3. Python programming on Sum of all even digits from 1 to N, count of digits 4. Preparation of documents in Latex 5. Python programming on reverse of a number, Primes from 1 to N, Palindrome 6. Decimal to binary conversion, First missing positive number, LCM of two numbers – Python program. 7. Nth Fibonacci Number and Special string – Python 8. Publications and Thesis with Latex –I 9. Publications and Thesis with Latex – II 10. Document in standard Conference/ Journal Template
<p>Session – 11 (08/04/2022)</p>	<ol style="list-style-type: none"> 1. Assignment - II on LATEX programming 2. Latex in Python 3. Valedictory Ceremony

ATTENDANCE LIST

1	STUDENT NAME	28-Mar	29-Mar	30-Mar	31-Mar	01-Apr	03-Apr	04-Apr	05-Apr	06-Apr	07-Apr	08-Apr
2	SHIVANANDA GS	P	P	P	P	P	N	P	P	P	P	P
3	Abhijith k	P	P	P	P	P		P	P	P	P	P
4	Ajaykumar	P	P	AB	AB	P	O	P	P	AB	AB	AB
5	AKSHAYA KR	P	P	AB	AB	P		P	P	AB	AB	AB
6	Allu Uday Kumar	P	P	AB	AB	P	C	P	P	AB	AB	AB
7	Ambika K	-	-	-	-	-		-	-	-	-	-
8	Archana K	-	-	-	-	-	L	-	-	-	-	-
9	Arjuna Somayaji C S	P	P	P	P	P		P	P	P	AB	AB
10	Bandi naveen gowd	P	P	AB	AB	P	A	P	P	AB	AB	AB
11	Bharath darshan s	P	P	AB	AB	P		P	P	AB	AB	AB
12	BHARATH V Y	P	P	P	P	P	S	P	P	P	AB	AB
13	Bharathi C	P	P	P	P	P		P	P	P	AB	AB
14	Bhavana S	P	P	P	P	P	S	P	P	P	P	P
15	CHODIPILLI SIVAPRASAD	AB	AB	P	P	AB		P	AB	P	P	P
16	D YASHWANTH	AB	AB	P	P	AB		AB	AB	P	AB	AB
17	Dev H Gowda	P	P	P	P	P	Q	P	P	P	AB	AB
18	Dilip Madappa	AB	AB	AB	P	AB		AB	AB	AB	AB	AB
19	Dr. A. Pullareddy	P	P	P	P	P	U	P	P	P	AB	AB
20	DVNSN MURTHY	P	P	P	P	P		P	P	P	AB	AB
21	Elluri Venkateswara Reddy	P	P	P	P	P	I	P	P	P	AB	AB
22	G A Bharath	AB	AB	AB	AB	AB		AB	AB	AB	AB	AB
23	G Venkatesh	P	AB	AB	AB	P	Z	P	AB	P	P	P
24	HARI SUNDAR S	P	P	AB	AB	P		P	P	AB	AB	AB
25	Hrishikesh Sandilya	P	AB	AB	AB	P	W	P	AB	AB	P	P
26	Irfan Tapal Shaik	P	P	P	P	P		P	P	P	P	P
27	Kagitha swathi	P	P	AB	P	P	A	P	P	AB	AB	AB
28	Kalla Bhagya Sri	P	P	P	AB	P		P	P	P	P	P
29	Kamatam Vyshnavi	P	P	AB	AB	P	S	P	P	AB	AB	AB
30	Kandukuri Nitheesh kumar	P	P	AB	AB	P		P	P	AB	AB	AB

31	Karapakula Balaji Deekshitha	P	P	AB	P	P	C	P	P	AB	P	P
32	Kavya E	P	P	P	P	P		P	P	P	P	P
33	Kavyasai Murkinati	AB	AB	P	AB	AB	O	AB	AB	P	AB	AB
34	Khushi Jirawala	P	P	P	P	P		P	P	P	AB	AB
35	Kotakinda Naveen	P	P	AB	AB	P	N	P	P	AB	AB	AB
36	KOWSHIKA SANKAR	P	P	P	P	P		P	P	P	P	P
37	Lavanya Vaikuntam	P	P	P	P	P	D	P	P	P	AB	AB
38	M Thanuja	P	P	P	P	P		P	P	P	P	P
39	M. Bharath kumar naick	P	P	P	P	P	U	P	P	P	AB	AB
40	M.Tanusha	P	P	P	P	P		P	P	P	P	P
41	Madur Hiremath	P	AB	AB	AB	P	C	P	AB	AB	AB	AB
42	MANJULA K	P	P	P	P	P		P	P	P	P	P
43	Manoj P	P	P	P	AB	P	T	P	P	P	AB	AB
44	Maridi Anwesh kumar reddy	P	P	P	P	P		P	P	P	AB	AB
45	Mogarala Yamuna	P	P	AB	AB	P	E	P	P	AB	AB	AB
46	Mohammed Mudassir	P	P	P	P	P		P	P	P	AB	AB
47	Mutthinni Haripriya	P	P	AB	AB	P	D	P	P	AB	P	P
48	Myla jagadeesh	P	P	P	P	P		P	P	P	AB	AB
49	Nagashree S	P	P	P	P	P		P	P	P	AB	AB
50	Nanda Kishore Pagadala	P	P	P	P	P		P	P	P	P	P
51	Oms Shankar naykar	P	P	AB	AB	P		P	P	AB	AB	AB
52	P.PAVITHRA	P	P	AB	AB	P		P	P	AB	AB	AB
53	Pachipala swathi	P	P	AB	AB	P		P	P	P	P	P
54	Palla Devendra	P	P	P	P	P		P	P	P	AB	AB
55	Palle maneesha	P	P	AB	P	P		P	P	AB	P	P
56	Patnam Lavanya	P	P	P	P	P		P	P	P	AB	AB
57	Pavithra T	AB	AB	AB	AB	AB		AB	AB	AB	AB	AB
58	Pooja G	P	AB	AB	P	P		P	AB	AB	AB	AB
59	POOJA J	P	P	AB	P	P		P	P	AB	AB	AB
60	Poojitha Mallem	P	P	AB	P	P		P	P	AB	P	P

61	POTTELI JASWANTH	P	P	AB	AB	P		P	P	P	P	P
62	Prathibha S	P	P	P	P	P		P	P	P	P	P
63	Pratik patil	P	AB	AB	AB	P		P	AB	AB	AB	AB
64	Prithvi BR	P	AB	AB	AB	P		P	AB	AB	AB	AB
65	Prithvi.J	P	P	P	P	P		P	P	P	AB	AB
66	Pv kiran	P	P	AB	AB	P		P	P	AB	AB	AB
67	R.Manoj kumar raju	AB	AB	P	P	AB		AB	AB	P	AB	AB
68	Rahul.K.L	P	P	AB	AB	P		P	P	AB	AB	AB
69	Rajkrishnan R	AB	AB	AB	AB	AB		AB	AB	AB	AB	AB
70	Rakesh R	P	P	AB	AB	P		P	P	AB	AB	AB
71	Ramesh.G	P	P	P	P	P		P	P	P	AB	AB
72	Renkala Tejasree	P	P	P	P	P		P	P	P	P	P
73	Revanuri Saranya	P	P	P	P	P		P	P	P	AB	AB
74	Riya Sara Joseph	P	P	P	P	P		P	P	P	P	P
75	Rohith V	P	P	P	P	P		P	P	P	AB	AB
76	S.M.Vaishnavi	P	P	AB	P	P		P	P	AB	AB	AB
77	S. Anuradha	AB	AB	AB	AB	AB		AB	AB	AB	AB	AB
78	Sagar M S	P	P	AB	AB	P		P	P	AB	P	P
79	Sahana R Hiremath	AB	AB	AB	AB	AB		AB	AB	AB	AB	AB
80	Sakshi Suresh Jadhav	P	P	P	P	P		P	P	P	P	P
81	Samhitha Bhat M	P	P	P	P	P		P	P	AB	AB	AB
82	SANTHOSH KUMAR G	AB	AB	AB	AB	AB		AB	AB	AB	AB	AB
83	Shashank N	P	P	AB	AB	P		P	P	AB	AB	AB
84	Shayana Saravanakumar	P	P	P	P	P		P	P	P	P	P
85	Shivam sharma	P	P	P	P	P		P	P	P	AB	AB
86	Shivraj Balasaheb Patil	P	AB	AB	AB	P		P	AB	AB	AB	AB
87	Suddula alekhya	AB	AB	AB	AB	AB		AB	AB	AB	AB	AB
88	Sudeshna Bhushan	AB	AB	AB	AB	AB		AB	AB	AB	AB	AB
89	Sunkara Jayasree	P	P	AB	AB	P		P	P	AB	P	P
90	Supriya R	P	P	AB	AB	P		P	P	AB	AB	AB

91	supriya Voddiboina	AB	AB	AB	AB	AB		AB	AB	AB	AB	AB
92	SUSHANT KUMAR	P	P	P	P	P		P	P	P	P	P
93	T NAGA CHAITHANYA	P	P	AB	AB	P		P	P	AB	AB	AB
94	Telugu Parameswar	P	P	AB	AB	P		P	P	AB	AB	AB
95	V MUKUNDA	P	P	P	AB	P		P	P	P	AB	AB
96	V. Pavani	P	P	AB	AB	P		P	P	AB	AB	AB
97	V.Manjunadha Reddy	P	P	AB	P	P		P	P	AB	P	P
98	Vedashree Chavan	P	P	P	P	P		P	P	P	P	P
99	Velpula Navitha	P	P	AB	AB	P		P	P	AB	AB	AB
100	vemala swetha	P	P	AB	AB	P		P	P	AB	AB	AB
101	Vishal S	P	P	AB	AB	P		P	P	AB	AB	AB
102	Viswanth	AB	AB	P	P	AB		AB	AB	P	AB	AB
103	Y.VENKATA SURESH	AB	AB	AB	AB	AB		AB	AB	AB	AB	AB
104	A Himagiri	-	-	P	P	P		P	P	P	AB	AB
105	Akula. Venkata Kalyan	-	-	P	AB	P		P	P	P	AB	AB
106	Yarragudi Renu	-	-	P	P	P		P	P	P	AB	AB
107	Allu Dhana Lakshmi	-	-	P	P	P		P	P	P	AB	AB
108	Lekkala sandya	-	-	P	P	P		P	P	P	AB	AB
109	D vinod	-	-	P	P	P		P	P	P	AB	AB
110	KATIKA BHANU PRAKASH	-	-	P	P	P		P	P	P	AB	AB
111	GUNTI SREEDHAR	-	-	AB	AB	AB		AB	AB	AB	AB	AB
112	P.dayasagarreddy	-	-	AB	AB	AB		AB	AB	AB	AB	AB
113	Chinnareddygar Praveena	-	-	P	AB	P		P	P	P	P	P
114	Jagadeesh	-	-	P	P	P		P	P	P	AB	AB
115	R.V Devendra Kumar	-	-	P	P	P		P	P	P	AB	AB
116	Rahul Nakkaboina	-	-	AB	AB	AB		AB	AB	AB	AB	AB
117	Chennareddy gowthami	-	-	AB	AB	AB		P	P	P	P	P
118	Bellam Lavanya	-	-	P	P	P		P	P	P	AB	AB
119	Hebbare kalyani	-	-	AB	AB	AB		AB	AB	AB	AB	AB
120	Balapanuru Sushmitha	-	-	AB	AB	AB		AB	AB	AB	AB	AB

STATEMENT OF ACCOUNTS

1. 15 Participants from BMSCE (Rs 300/-)
2. 100 Participants from other colleges (Rs 300/-)
3. 4 Faculty from other colleges
4. 2 Faculty from ETE department were allowed to attend free

Total amount generated: **Rs 35,700/-**

Percentage to college (30%): **Rs 10,710/-**

Certificates (printing, posting)

Percentage to NGO (30%): **Rs 10,710/-**

Percentage to IUCEE (20%): **Rs 7140/-**

Percentage to Department (20%): **Rs 7140/-**

ASSESSMENTS ON ANALOG SIGNAL PROCESSING CONCEPTS

1. Quiz –I: Python programming: <https://forms.gle/bQCsrhGsQHyXf48i9>
2. Assignment on LaTeX programming

VALEDICTORY EVENT

- Session began with summary and vote of thanks by student coordinator Sharanya S.
- Moving on further, Dr. Kanmani B, Dr. N Srinivasa Rao and Dr. Balachandra K spoke few words on the completion and conduction of the internship.
- Feedback of individual participants

CERTIFICATES



INDIAN INSTITUTE OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS
IETE
1959 • INDIA • 2025



IUCEE
Indo Universal Collaboration
for Engineering Education



BMSCE
IEEE



IEEE TEMS
Technology & Engineering
Management Society

B.M.S. College of Engineering, Bengaluru
(Autonomous Institute Affiliated to VTU, Accredited by NAAC with A++)
Department of Electronics and Telecommunication Engineering
(Under Graduate Program Accredited by NBA in Tier-I Format)

Two weeks online Internship on
Introduction to Python and LaTeX Programming
28th March, 2022 to 8th April, 2022

Certificate of Participation

This is to certify that _____ of _____ college, has successfully completed the two weeks online Internship on 'Introduction to Python and LaTeX Programming' from 28th March, 2022 to 8th April, 2022, organized by the department of Electronics and Telecommunication Engineering, B.M.S. College of Engineering, Bengaluru. in association with the IUCEE, IEEE TEMS BMSCE Student Chapter & IETE Bengaluru Centre.

Dr. N.Srinivasa Rao
HOD, Dept. of ETE
BMSCE, Bengaluru

Dr. S.Muralidhara
Principal |
BMSCE, Bengaluru

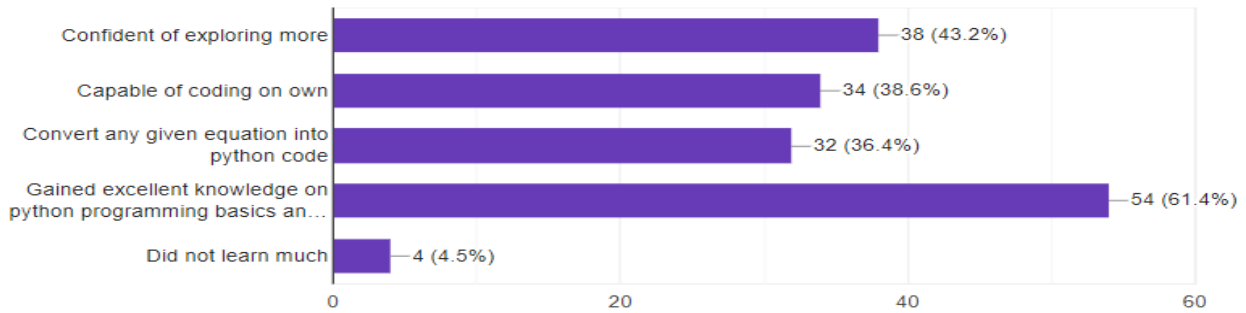
SUMMARY OF FEEDBACK SURVEY

Feedback survey link: <https://forms.gle/prJuBANtXkf3K7jr9>

Kindly describe your python experience from the workshop

Copy

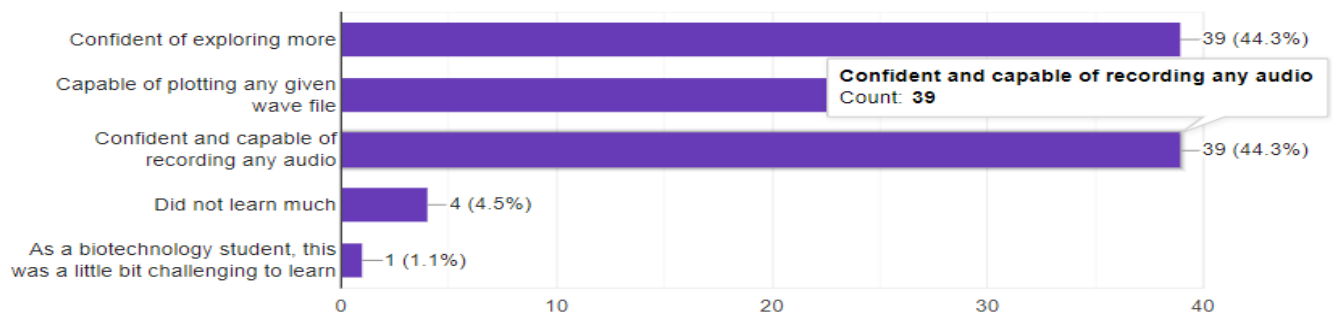
88 responses



Kindly describe your audio processing experience

Copy

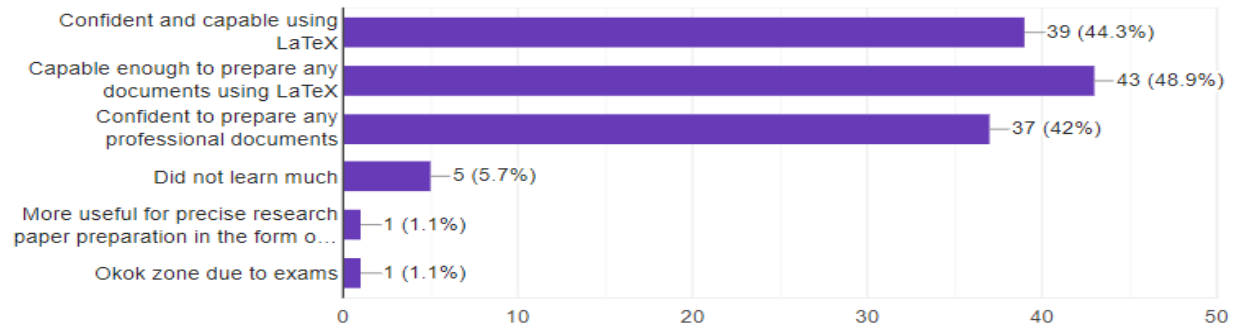
88 responses



Kindly describe your experience from LaTeX programming

Copy

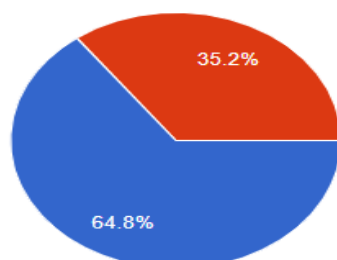
88 responses



Kindly describe your overall learning experience

Copy

88 responses

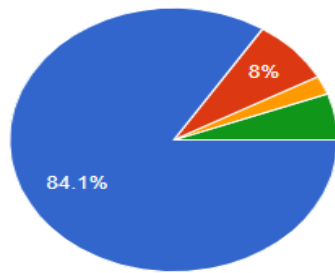


- Extremely satisfied with the learning experience of the internship
- Moderately satisfied with the learning experience of the internship
- Not satisfied with the learning experience of the internship

Kindly give your opinion on the course content

 Copy

88 responses

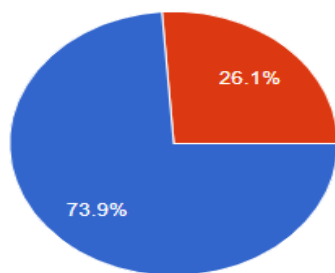


- Content is well planned and covered for the available duration
- More content could be included
- Content needed to be reduced
- As the time is comparatively limited. Content needs to be reduced and the classes can be conducted a bit slower so that everyone can cope up

Opinion on the duration of the internship

 Copy

88 responses



- Two weeks is fine
- Should have been planned for one month
- One week would have been fine

List the topic which your confident and you liked most

88 responses

Python	Yes
Python	Matlab
Latex	Python coding, coding to generate the signals, audio input and latex.
Loops	Plotting of waves, and audio processing
Plotting of waves	Plotting of waveforms and equations in python and document using latex
Plotting waves	Ops concepts and mathematical equation conversions
Plotting	Python and Latex
Plotting graph	Python programming in Audio files really enhanced the confidence level for my future work. Additionally , Reading the .csv file using Python is another great understanding and experience.
All Topics	

Python data types

Preparation of document using latex

Paragraphs
Figures
Tables

Latex

Analog and discrete plot

Plot of signals, operations on signal, installation of latex

-

Liked all the topics

Python....mainly plotting and audio waves

LaTeX

Latex basics
Phyton basics
Equations
Filters

Algorithms

Python coding

Plotting of wave file

Plots

Audio generation using python. Latex

Transformation Of Signal , Zero - Pole Plotting , Audio Processing , Latex

Handling wave functions in python is the topic I liked the most which is related to my core subjects.

Transfer functions and Latex

Audio signal processing,Coding on signals and functions

At all topics I have became as confident

Matlab

Python programming concepts

Basic Python

No

Python programming

oops

Audio processing

plotting waveforms

Plotting if waves

I liked all the the topics that was covered by the workshop thank you

Building equtions using phyton code

I learn about python

Usage of python programming for plotting, Plotting of waves

Integration

Plotting the waves using python programming

Plotting of function

Introduction to python , Creating functions in python

python code to arithmetic equations

python basics, analog signals in python

Python programming.

Loops

Latex and python both

Introduction to python plot of analog signals in python

Plot of continuous and discrete wave

I got more confident on working on own python programming And I learnt alot about LaTeX

Multiplication of sine wave

Plot of analog signals in python

Loops and functions

Coding

Programming on pythan

Python basic's

Pointers

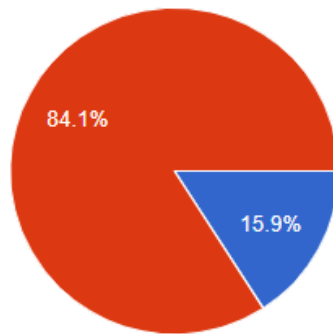
Python basics

Document sectioning and numbered and unnumbered section

Regarding Certificate

 Copy

88 responses



- Hard copy - Collect certificate from BMSCE
- Soft copy

Any suggestion for future program conduction

88 responses

No

NA

Nothing

Nothing

Nil

All good no suggestions

ML , embedded systems

Keep coming with these types of internship it really helps to enhance the skill. And to explore more options in future innovation and technology.

Conduct more programs like this , which are very useful for us to learn more from u to gain much knowledge on python and other

Nothing, and We are excited for future programs

Willing to have more such programs like international conferences and workshops

NO

Conduct more workshops on various topics

Awaiting for such future sessions, on using High Level Synthesis tools, Vitis, Vivado for using Python to convert as IP core / RTL finally on to Xilinx latest like Zynq ultra scale FPGAs , as well as on Intel FPGAs with Intel tool of chain. These sessions helps the student community to progress in their future works either in Industry or in their research, and currently in my research in particular. With sincere thanks and kind regards.

Everything is fine

Bring some more programs in the future would help students and thank you for providing such a good learning platform

Vlsi

Embedded systems

Any hardware related topics since i am in ece branch and want to improve the hardware concepts

Ni

Need to improve duration

More recording classes and soft copies are needed

.

Need to conduct more workshops and internship

Embedded System , Data Science , Machine Learning , Robotics , Building Softwares , Designing 3D

Starting time of the program should be at 6pmas many students arrive from college at 6pm and more

If we could get notified about the upcoming internship I'll definitely join to gain knowledge and become much confident

More general topics that can be applicable to different departments could be included

Well organised the content and executed

Pleased conduct internship for an one month

Over all good

-

It would be awesome if conducted offline or (maybe give a choice to attend both online and offline)

Offline would be better

Java or C++

Expecting workshop on Image Processing

I liked all the classes Keep going thank you

Conduct more like these and reach us too

If it is possible provide the one month internship on python using django

1moth

The program which is conducted it is useful to all ,and iam eagerly waiting for the upcoming programs like AI,ML etc

Make an internship for month

Advanced python for 2months

explain with more examples

Please extend the training program days

conduct one month workshop

It's is better from offline mood

Should be there within 3 month's

Meeting tyming shall be from 6.30 . So that the college students and job going people may attend from the beginning of the session

It is very good flatform to learn

Class Duration will be reduced

It is better to more than 4 weeks

Java

Yes

Need to plan different languages

More program to work a robots

On IoT

Improvement in meting platform

Any other comments

88 responses

No

NA

Nothing

Nothing

Nil

Thank you for the knowledge gaining in python and latex

Really helpful

Everything was excellent

It was a gratefull session

None

Nice experience through out the program.

NO

Teachers explanation was highly satisfactory. We need more online internship or workshops

Sincerely thankful to Prof Kanmani Madam and Prof Balachander Sir for providing training on the Python and Latex programming techniques and practical sessions. This has removed the fears about Python programming and Latex programming for IEEE paper preparation through programming.

No

Keep going
All the best


It was really great hoping foe next interaction

Good

This workshop helped us lot. Thanks to all teachers and management

Excellent Teaching

Both the teachers are extraordinary at teaching the python and latex

This was the best , learnt very much in short time thanks is a very small word but THANKS A LOT to the Lecturers, and also thanks to Student Coordinator for sharing the codes regularly and for being with us 

The time of the sessions could be reduced to 1 and half hours or 2 hours

It is very good workshop to gain the more knowledge on programming and to explore more.

Everything is fine

Acquired Good Knowledge because of good teaching.

It was fantastic

Good experience

All the classes was understandable thank you

No.

No.....

Noi

I loved this internship

It's a nice training program to learn and also the idea for helping social causes nice..

No comments

It very exlent platform

Thank you for providing this opportunity

Good intership

Very good program

Nice internship

Good program

Good intership

Very good program

Nice internship

Good program

Good teaching

Everything is fine

MESSAGE FROM COORDINATORS

The satisfaction that accompanies the successful completion of this Python and LaTeX Programming Internship would be in-complete without mention of the people who made it possible, without constant guidance and encouragement would have a made efforts go in vain. We consider ourselves privileged to express gratitude and respect towards all from the completion of this internship.

We convey thanks to **our Respected Dr. N Srinivasa Rao, Dr. Kanmani B, Dr. Prasanna Kumar and Dr. Balachandra K**, of Electronics and Telecommunication department for providing encouragement, constant support and guidance which was of a great help for completion of this Internship successfully.

SHARANYA S - 1BM19ET051

ANANYA B R – 1BM19ET007

From

18/03/2022

The Head,

Dept. of ETE

BMSCE

To

The Principal

BMSCE

With reference to the item no:2, minutes of the council meeting held on 9/3/2022, we have planned to the conduct the Value Added Program titled "Python and LaTeX" in Blended mode from 21st March to 1st April, 2022. The resource persons for the program are Dr. B Kanmani and Dr Balachandra K. The brochure for the program is attached for your reference. The revenue generated for the program is donated to NGO (S K ShivaKumar Memorial Trust).

In this regard, I am requesting you to give the permission

30% of the revenue goes to Institution

Thanking You Sir,

20% of the revenue goes to NGO


With Best Regards



Approve
G. S. S.
18/3/22

Revised revenue budget

30% to college


30% to NGO

20% to dept

20% to IUCEE


21/3/22

B. Kanmani
21/03/2022


21/3/22