

**ALVA'S INSTITUTE OF ENGINEERING AND
TECHNOLOGY**

Shobhavana Campus, Mijar – 574225, Moodbidri.
Dakshina Kannada Karnataka, India.



Department of Computer Science and Engineering

CERTIFICATION COURSE

on

“MACHINE LEARNING USING PYTHON PROGRAMMING”

ACADEMIC YEAR

2018-19



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri - 574 225

Phone: 08258-262725 Fax: 08258-262726

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

AIET/CC/CSE/2018-19/01

Date: 18/09/2018

Place: AIET, Moodbidri.

APPROVAL LETTER

To,

The Principal,
AIET, Moodbidri

Respected Sir,

Sub: - Approval for Organizing the Students Certification/Training Program on
"Machine Learning with Python Programming"-Reg.

With reference to the subject cited above, I would like to bring to your kind notice that, the Department is planning to host a Student Training Program/ certification course on **"Machine Learning with Python Programming"** from **"27th August 2018" to 01st September 2018"**.

Kindly consider the above request and approve the same for further proceedings.

Thanking you Sir.


Coordinator:

Mr. Harish Kunder


Head of the Department:

Dr. Manjunath Kotari

Dr. Manjunath Kotari
Dept. Of Computer Science & Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225


Principal:

Principal
Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Dated 24/08/2018

CIRCULAR

All the students are hereby informed that there is a certification course on **Machine Learning with Python Programming** in association with **Dlithe Software Bangalore**. All are hereby informed to attend and actively participate in training Session to be held during **27th August 2018- 01st September 2018** in **Internet Lab**.

(H.O.D.)

Dept. Of Computer Science & Engineering
Alva's Institute of Engg. & Technology
Mijar, MOOBBIDRI - 574 225

PROGRAMME SCHEDULE

- ❖ Invocation
- ❖ Welcome Speech
- ❖ Introducing the Chief Guest
- ❖ Honoring the Chief Guest
- ❖ Inauguration
- ❖ Presidential Speech
- ❖ Vote of Thanks

INVITATION

**ALVA'S INSTITUTE OF ENGINEERING AND
TECHNOLOGY, MOOBBIDRI**

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Cordially invites you to the

Inauguration of Certification Program

On

**"Machine Learning with Python
Programming"**

Resource Person: Mr. Arun Rajpurohit

Dlithe Softwares, Bangalore

Guest of Honor: Mr. Vivek Alva

Managing Trustee

President: Dr. Peter Fernandes

Principal, AIET, Moodbidri.

Coordinator

Mr. Harish Kunder

Associate Professor

Head of the Department

Mr. Manjunath Kotari

Professor and Head, Dept. of CSE

Venue: Seminar Hall, First Floor, AIET Main Block@9.00AM

ABOUT VTU, BELAGAVI

Visvesvaraya Technological University is a collegiate public state university in Karnataka State, India. It was established by the Government of Karnataka. The university is named after M. Visvesvaraya from Karnataka, the only engineer to be awarded a "Bharat Ratna", the highest civilian award in India. Jnana Sangama, Belagavi is the headquarters of VTU. Additionally, the university has three regional centers in Bangalore, Gulbarga and Mysore. VTU is one of the largest universities in India with 212 colleges affiliated to it with an intake capacity of over 467,100 undergraduate students and 12,666 postgraduate students. The university encompasses technical and management fields which offer 30 undergraduate and 71 postgraduate courses. It has around 1800 PhD candidates. VTU has 13 QIP centers and 17 extension centers in its affiliated colleges offering postgraduate courses. It has around 2,305 departments recognized as research centers which are spread across its affiliated institutions in cities of Karnataka.

AJET, MOODBIDRI

Alva's Education Foundation (AEF) established in 1995 with the vision of our Chairman Dr. M. Mohan Alva has succeeded in making Moodbidri, an Educational hub in the South Canara Region, with more than 25000 students pursuing various courses ranging from primary school to post-graduate courses in social sciences, pure sciences, engineering and management. There are 21 institutions functioning under the Alva's Education Foundation.

Alva's Institute of Engineering and Technology, Moodbidri is a Premier Engineering Institute of Alva's Education Foundation, established in the year 2008. The college is certified to the ISO 9001: 2008 standards. The institute offers top quality education in five under graduate programs in Engineering-Computer Science, Civil, Electronics & Communications, Information Science, and Mechanical Engineering-Three Post Graduate programs- Master of Technology in Thermal Power Engineering, Computer Science & Engineering, VLSI Design Embedded System and Master of Business Administration.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The Department was started in the year 2008 with an intake of 60 for the undergraduate program. The program has become popular among students due to the achievements and rigor. The department has well-equipped classrooms and computer laboratories with high-end systems as per the AICTE norms. The department is affiliated to Visvesvaraya Technological University (VTU).

The Department carries out various Industry-Institute interaction events for the benefit of the students. The Department conducts various Seminars and Technical talks in collaboration with various Companies also. Faculty members are of many Professional societies like IEEE, ISTE, etc. With an objective of developing core competence in the respective subject specializations and for learning newer technologies, the Department has formed the various Technical divisions.

ABOUT MACHINE LEARNING

Machine learning (ML) is the scientific study of algorithms and statistical models that computer systems use to perform a specific task without using explicit instructions, relying on patterns and inference instead. It is seen as a subset of artificial intelligence. Machine learning algorithms build a mathematical model based on sample data, known as "training data", in order to make predictions or decisions without being explicitly programmed to perform the task. Machine learning algorithms are used in a wide variety of applications, such as email filtering and computer vision, where it is difficult or infeasible to develop a conventional algorithm for effectively performing the task.

Continuing with the effort of training the members, a Student Training Program is organized on "Machine Learning" at AIET Moodbidri by the Department of Computer Science and Engineering.

As per the current trend, due to constant change and development in digitization, our lives are improving in all areas. To deliver a quality product, we need to have information on recent industrial trends skills in the Software Development Process.

COURSE CONTENT

1. Introduction to Machine Learning.
2. Introduction to Python Programming.
3. Various Machine Learning algorithms.
4. Classification Techniques
5. Clustering Techniques.
6. Concepts of ANN.
7. Basic idea of NLP.
8. Machine Learning concepts with Tanserflow.

RESOURCE PERSON

Mr. Arun Rajpurohit

Dlithe Softwares, Bangalore

PROGRAM SCHEDULE

27- AUGUST -2018

Registration:	08:30 am to 09:30 am
Inauguration:	09:30 am to 10:00 am
Keynote Address:	10:00 am to 11:00 am
Tea Break:	11:00 am to 11:15 am
Session 1:	11:15 am to 01:00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 2:	02:00 pm to 05:00 pm

28- AUGUST -2018

Session 3:	09.00 am to 11:00 am
Tea Break:	11.00 am to 11.20 am
Session 4:	11.20 am to 01.00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 5:	02:00 pm to 05:00 pm

29- AUGUST -2018

Session 6:	09.00 am to 11:00 am
Tea Break:	11.00 am to 11.20 am
Session 7:	11.20 am to 01.00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 8:	02:00 pm to 05:00 pm

30- AUGUST -2018

Session 9: 09.00 am to 11:00 am
Tea Break: 11.00 am to 11.20 am
Session 10: 11.20 am to 01.00 pm
Lunch Break: 01:00 pm to 02:00 pm
Session 11: 02:00 pm to 05:00 pm

31- AUGUST -2018

Session 12: 09.00 am to 11:00 am
Tea Break: 11.00 am to 11.20 am
Session 13: 11.20 am to 01.00 pm
Lunch Break: 01:00 pm to 02:00 pm
Session 14: 02:00 pm to 05:00 pm

01- SEPTEMBER -2018

Session 15: 09.00 am to 11:00 am
Tea Break: 11.00 am to 11.20 am
Session 16: 11.20 am to 01.00 pm
Lunch Break: 01:00 pm to 02:00 pm
Session 17: 02:00 pm to 04:30 pm
Valedictory: 04:30 pm to 05:00 pm



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Registered Students List for Machine Learning with Python Programming Certification

SLN	USN	NAME
1.	4al14cs040	Shwetha M.G.
2.	4al15cs008	Anand R
3.	4al15cs058	Md. Afnanaman
4.	4al15cs082	Sai Charan R
5.	4al16cs003	Adarsha N
6.	4al16cs004	Ainab
7.	4al16cs400	Chandan B
8.	4al16cs010	Amogha U
9.	4al16cs013	Anix Jugal D'cunha
10.	4al16cs017	Apoorva U
11.	4al16cs018	Arunakumari V
12.	4al16cs020	Banish M G
13.	4al16cs024	Chaitanyatejas
14.	4al16cs032	Dhanush Shetty
15.	4al16cs035	Gauthamprabhu
16.	4al16cs036	Hanishree M S
17.	4al16cs038	Harshitha M
18.	4al16cs040	Imran Khan
19.	4al16cs041	Jayanth S V
20.	4al16cs044	Karthik M R
21.	4al16cs045	Katira Krishna Jitendra
22.	4al16cs053	Mithun Kumar D

[Signature]
H.O.D.

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23.	4al16cs058	Nayan P Joshi
24.	4al16cs061	Pallaviirannasutar
25.	4al16cs062	Pavan Kamath
26.	4al16cs065	Poojashree
27.	4al16cs066	Pragathi H D
28.	4al16cs068	Prasanna
29.	4al16cs069	Prashanth S
30.	4al16cs072	Rakesh M Kotian
31.	4al16cs074	Rakshithgowda N
32.	4al16cs075	Rakshithumeshrai
33.	4al16cs076	Ravi K R
34.	4al16cs079	S K Rahul
35.	4al16cs080	S Suhas Prasad Shetty
36.	4al16cs081	Safnaaz
37.	4al16cs082	Samrinbanu
38.	4al16cs084	Sannidhi P
39.	4al16cs086	Sathwik R Gutti
40.	4al16cs088	Shamanth M R
41.	4al16cs089	Shashank V Rao
42.	4al16cs090	Shashikantchavan
43.	4al16cs093	Shetty Rasik
44.	4al16cs094	Shetty Sanath
45.	4al16cs097	Shetty Veekshith
46.	4al16cs106	Sujay

Arjun
HOD
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47.	4al16cs109	Suraj S Kashyap
48.	4al16cs112	Syed Rabeyaaamir
49.	4al16cs115	Vaibhavi
50.	4al16cs119	Venkatachandrashekhar
51.	4al16cs126	Parikshithadiga B
52.	4al16cs129	Jyothi Lakshmi C S
53.	4al16cs131	Manish B. Shriyan
54.	4al17cs400	Bharath S
55.	4al15cs002	Adarsh M S
56.	4al15cs009	Ankith
57.	4al15cs023	Chaithra Gajandimath
58.	4al15cs037	H Akshay Kedlaya
59.	4al15cs051	Kumaraswamy V S
60.	4al15cs055	Megha
61.	4al15cs070	Prathiksha P Rai
62.	4al15cs078	Rakshitha M
63.	4al15cs095	Sumith Kumar S K
64.	4al15cs099	T S Kusumasri
65.	4al15cs102	Vaibhavi Vitthal Kulkarni
66.	4al15cs104	Varsha S
67.	4al15cs107	Vishnu P S
68.	4al15cs113	Shetty Niketha S
69.	4al15cs114	Shetty Aishwarya S
70.	4al15cs014	Arpitha S

Arpitha S
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

71.	4al15cs015	Arshritha M S
72.	4al15cs016	Ashritha Jain R
73.	4al15cs022	Chaithra
74.	4al15cs029	Deekshitha
75.	4al15cs034	Ganesh Shrikant Palekar
76.	4al15cs040	Hema R
77.	4al15cs042	Jagadish Rathi
78.	4al15cs048	Kalavara Deekshith Raj
79.	4al15cs054	Madhukara
80.	4al15cs065	Pooja K
81.	4al15cs068	Poorna Shetty
82.	4al15cs087	Shraddha B Shetty

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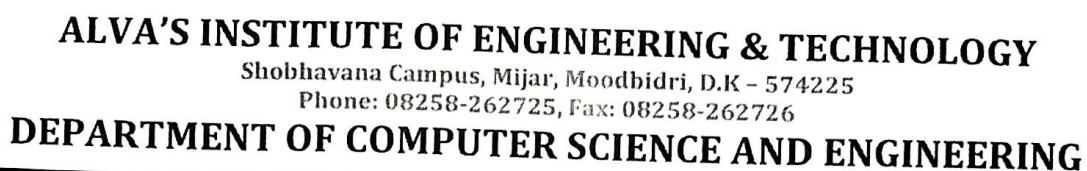
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Attendance List Of Students for Machine Learning with Python Programming Certification

[illegible]

23.	4AL16CS058	Nayan P Joshi
24.	4AL16CS061	Pallavi Iranna Sutar
25.	4AL16CS062	Pavan Kamath
26.	4AL16CS065	Poojashree
27.	4AL16CS066	Pragathi H D
28.	4AL16CS068	Prasanna
29.	4AL16CS069	Prashanth S
30.	4AL16CS072	Rakesh M Kotian
31.	4AL16CS074	Rakshith Gowda N
32.	4AL16CS075	Rakshith Umesh Rai
33.	4AL16CS076	Ravi K R
34.	4AL16CS079	S K Rahul
35.	4AL16CS080	S Suhas Prasad Shetty
36.	4AL16CS081	Safnaaz
37.	4AL16CS082	Samrinbanu
38.	4AL16CS084	Sannidhi P
39.	4AL16CS086	Sathwik R Gutti
40.	4AL16CS088	Shamanth M R
41.	4AL16CS089	Shashank V Rao
42.	4AL16CS090	Shashikant Chavan
43.	4AL16CS093	Shetty Rasik
44.	4AL16CS094	Shetty Sanath
45.	4AL16CS097	Shetty Veekshith
46.	4AL16CS106	Sujay

[illegible]



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71.	4AL15CS015	Arshritha M S	Arshritha	Arshritha	Arshritha	Arshritha	Arshritha	Arshritha	Arshritha	Arshritha	Arshritha	Arshritha	Arshritha	Arshritha
72.	4AL15CS016	Ashritha Jain R	Jain	Jain	Jain	Jain	Jain	Jain	Jain	Jain	Jain	Jain	Jain	Jain
73.	4AL15CS022	Chaithra	Chaithra	Chaithra	Chaithra	Chaithra	Chaithra	Chaithra	Chaithra	Chaithra	Chaithra	Chaithra	Chaithra	Chaithra
74.	4AL15CS029	Deekshitha	Deekshitha	Deekshitha	Deekshitha	Deekshitha	Deekshitha	Deekshitha	Deekshitha	Deekshitha	Deekshitha	Deekshitha	Deekshitha	Deekshitha
75.	4AL15CS034	Ganesh Shrikant Palekar	Ganesh	Ganesh	Ganesh	Ganesh	Ganesh	Ganesh	Ganesh	Ganesh	Ganesh	Ganesh	Ganesh	Ganesh
76.	4AL15CS040	Hema R	Hema	Hema	Hema	Hema	Hema	Hema	Hema	Hema	Hema	Hema	Hema	Hema
77.	4AL15CS042	Jagadish Rathi	Rathi	Rathi	Rathi	Rathi	Rathi	Rathi	Rathi	Rathi	Rathi	Rathi	Rathi	Rathi
78.	4AL15CS048	Kalavara Deekshith Raj	Deekshith	Deekshith	Deekshith	Deekshith	Deekshith	Deekshith	Deekshith	Deekshith	Deekshith	Deekshith	Deekshith	Deekshith
79.	4AL15CS054	Madhukara	Madhukara	Madhukara	Madhukara	Madhukara	Madhukara	Madhukara	Madhukara	Madhukara	Madhukara	Madhukara	Madhukara	Madhukara
80.	4AL15CS065	Pooja K	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja	Pooja
81.	4AL15CS068	Poorna Shetty	Poorna	Poorna	Poorna	Poorna	Poorna	Poorna	Poorna	Poorna	Poorna	Poorna	Poorna	Poorna
82.	4AL15CS087	Shraddha B Shetty	Shraddha	Shraddha	Shraddha	Shraddha	Shraddha	Shraddha	Shraddha	Shraddha	Shraddha	AB	Shraddha	Shraddha

KHP

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Quiz on Machine Learning Course

1. What is Machine learning?
 - A. The autonomous acquisition of knowledge through the use of computer programs
 - B. The autonomous acquisition of knowledge through the use of manual programs
 - C. The selective acquisition of knowledge through the use of computer programs
 - D. The selective acquisition of knowledge through the use of manual programs.
2. Which of the factors affect the performance of learner system does not include?
 - A. Representation scheme used
 - B. Training scenario
 - C. Type of feedback
 - D. Good data structures
- 3) Which of the following is an example of a deterministic algorithm?
 - A. PCA
 - B. K-Means
 - C. None of the above
4. Which of the following is a widely used and effective machine learning algorithm based on the idea of bagging?
 - A. Decision Tree
 - B. Regression
 - C. Classification
 - D. Random Forest
5. The most widely used metrics and tools to assess a classification model are:
 - A. Confusion matrix
 - B. Cost-sensitive accuracy
 - C. Area under the ROC curve
 - D. All of the above
6. Which of the following is a disadvantage of decision trees?
 - A. Factor analysis
 - B. Decision trees are robust to outliers
 - C. Decision trees are prone to be overfit
 - D. None of the above



Quiz on Machine Learning Course

7. Which of the following is true about Naive Bayes ?
- A. Assumes that all the features in a dataset are equally important
 - B. Assumes that all the features in a dataset are independent
 - C. Both A and B
 - D. None of the above options
8. How can you prevent a clustering algorithm from getting stuck in bad local optima?
- A. Set the same seed value for each run
 - B. Use multiple random initializations
 - C. Both A and B
 - D. None of the above
9. Suppose you have trained a logistic regression classifier and it outputs a new example x with a prediction $h_0(x) = 0.2$. This means
- A. Our estimate for $P(y=1 | x)$
 - B. Our estimate for $P(y=0 | x)$
 - C. Our estimate for $P(y=1 | x)$
 - D. Our estimate for $P(y=0 | x)$
10. What is the purpose of performing cross-validation?
- A. To assess the predictive performance of the models
 - B. To judge how the trained model performs outside the sample on test data
 - C. Both A and B
11. For the one-parameter model, mean-Square error (MSE) is defined as follows: $\frac{1}{2N} \sum_{n=1}^N (y_n - \beta_0)^2$. We have a half term in the front because,
- A. Scaling MSE by half makes gradient descent converge faster.
 - B. Presence of half makes it easy to do grid search.
 - C. It does not matter whether half is there or not.
 - D. None of the above
12. Let us say that we have computed the gradient of our cost function and stored it in a vector g . What is the cost of one gradient descent update given the gradient?
- A. $O(D)$
 - B. $O(N)$
 - C. $O(ND)$
 - D. $O(ND^2)$



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Quiz on Machine Learning Course

13. Computational complexity of Gradient descent is,
- A. Linear in D
 - B. Linear in N
 - C. Polynomial in D
 - D. Dependent on the number of iterations
14. K -fold cross-validation is
- A. Linear in K
 - B. Quadratic in K
 - C. Cubic in K
 - D. Exponential in K
15. What is `pca.components_` in Sklearn?
- A. Set of all eigen vectors for the projection space
 - B. Matrix of principal components
 - C. Result of the multiplication matrix
 - D. None of the above options



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FEEDBACK FORM

Students Training Program

On

"Machine Learning"

For the following areas, please indicate your rating from 1 to 5:

1=strongly Disagree 2=Disagree 3=neither agree nor disagree 4=Agree 5=strongly Agree

Name	Sem & Sec
------	-----------

SN	Topics	1	2	3	4	5
A.	Content					
1	Understood the basics concepts of Machine Learning.					
2	Understood the concepts of Python Programming					
3	Understood the various Classification and Clustering Techniques.					
4	Able to implement the concepts of machine learning.					
5	Able to design Solution to the given problem using Python Programming.					
B	Presentation					
6	Resource Person knowledge					
7	Resource Person presentation style					
8	Resource covered material clearly					
9	Resource Person responded well to questions					
10	Resource Person facilitated interactions among participants well					
C. How could this workshop be improved?						
D. Any other comments or suggestions?						
E. Overall, how would you rate this workshop?						
<input type="checkbox"/>	Poor	<input type="checkbox"/>	Good			
<input type="checkbox"/>	Neither Good Nor Poor	<input type="checkbox"/>	Excellent			



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REPORT ON

Machine Learning using Python Programming

Department of CSE organized Certification Program on "Machine Learning using Python Programming". The Certification Programme was held during 27th August 2018 to 1st September, 2018. The inauguration of programme was held on 27th Sept, 2018 at Engineering Seminar Hall. This Certification programme was held in association with Dlithe Software, Bangalore. Mr. Arun Rajpurohit and Mr. N.Sridhar Murthy Dlithe Software were the resource persons of the Certification Programme. About 82 CSE students were participated in this hands-on training session of Machine learning using Python

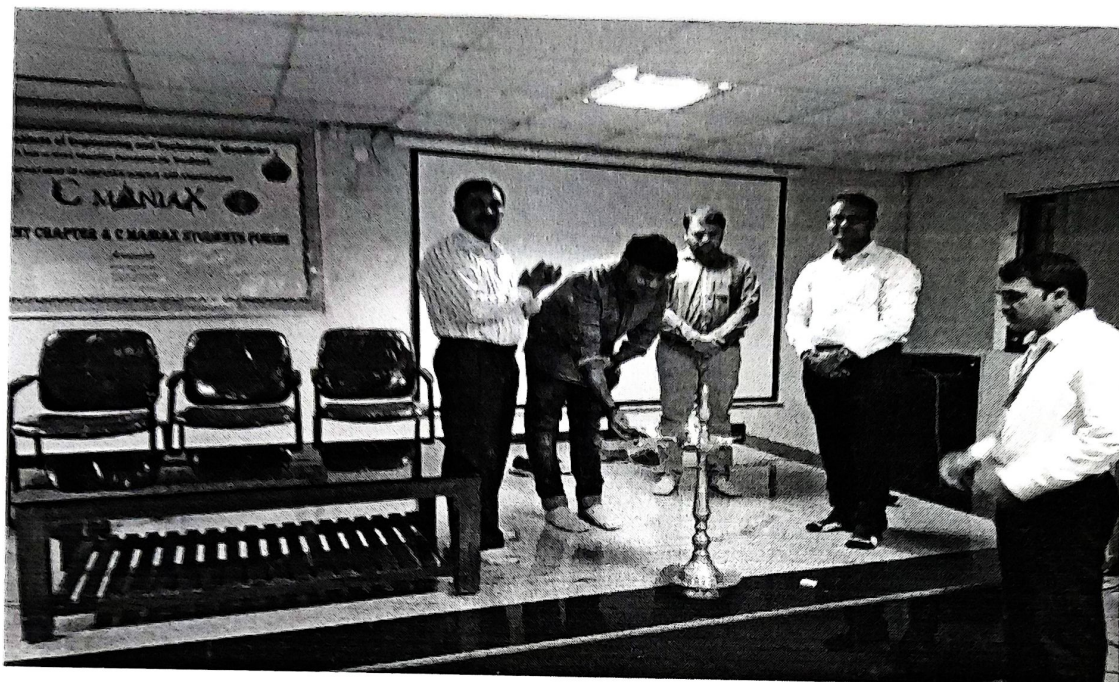


KMD
Coordinator

HOD
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Dlithe have assigned the mini projects to the students to practice Python programming, machine learning during their 7th semester. This will help them to keep them abrupt with technology. Students will also practice agile way of working. Students have learnt using cloud code repositories such as "GIT HUB" and they will use it during project execution.

Dlithe will engage students on fortnightly basis and do on premise review to check the progress. Students are also appraised with Internship report which they must follow and update regularly based on project progress.

KMD
Coordinator

Arjun
HOD
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The projects belong to the following area: Banking & Finance, Retail, Entertainment / Social Media, Academics, Agriculture

Objective of these project executions is to build application that can increase customer experience and optimize operational excellence.

The following problems were distributed to the students by the resource person and students solved the problems successfully in the given time interval.

SL#	Problem statement	Batch	Participants	Remarks
1	Postal department in India plays an important role in letter communication. In the digital world, we still see many letters address is hand written and processing, sorting takes more	Batch 1	USN: Spoc 4AL15CS113 NIKITHA	The solution can be extended to all courier services companies. Also explore other applicability of text/image processing


Coordinator


HOD

H.O.D.
Dept. Of Computer Science & Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri, D.K - 574225

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

	time. Department would like to have solution for faster sorting, processing of letters.			
2	Police department and Intelligence bureau's always find it difficult to trace thieves, terrorists, rowdy sheeters since they change their appearance and freely roam around. Department would like to nab them using an intelligent system	Batch2	USN: Spoc 4AL15CS051 Kumarswamy	Usually the camera are installed and images are stored. Can you make use of this data set and build AI platform?
3	AIET website is awesome. However, a BOT would add value to increase customer experience and will result into operational excellence. Can you build a BOT for this?	Batch 3	USN: Spoc 4AL15CS048	Use text and voice datasets
4	Bank is experiencing a huge crowd during festival times. Bank manager is confused to take any decisions as the employees are distributed to serve customers with a defined plan. Can you build a platform to solve this problem?	Batch4	USN:	Use sound decibel devise, integrate with Python programming to Analyze the sound patterns and provide a decision-making solution
5	Banks, Financial Institutions, Insurance companies always	Batch 5	USN: Spoc 4AL15CS022	The solution can also be useful for fraud


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	find it difficult when it comes to cheque processing. The difficult part is to match the signature and often cheques gets rejected. On the other side customer experiencing it hard about the returns. Can you build a platform with AI to match the text with nearest set?		Chaitra	prevention
6	A major retail vendor is introduced many new brands; however, he is confused about the future of these brands and modification needed? Can you analyze the companies twitter tweets or feeds and help them to give some decision?	Batch 6	USN: Spoc 4AL15CS055 Megha	This can be applied to many industry segments
7	AIET can be benefitted more if ALEXA can be integrated with college infrastructure and make it functional to use it during inaugural functions like sports, tech, annual etc.	Batch 7	USN: Spoc 4AL15CS040/104 Hema R, Varsha S	

Pre-Final Year: Below are the assignment to practice during their 5th & 6th Semester

- ✓ Make a web application to predict the customer eligibility for a loan by analyzing the previous data


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- ✓ Implement the basic idea of a self-driving car using Open CV and Neural networks
- ✓ Create a web tool to predict the stock market by analyzing previous data
- ✓ Design a chat application to give suggestion by analyzing the user previous messages
- ✓ Create a home security system by analyzing the patterns of a person's movement in home using OpenCV or sensors
- ✓ Build an application to predict diabetics by analyzing the test report of a patient
- ✓ Develop a system to unlock the door by using facial recognition and facial expression recognition


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Department of Computer Science & Engineering

Summary Report of Add-on / Certificate program with its Outcomes

Academic Year : 2018-2019	Duration: 27 th August 2018 to 1 st September, 2018
Title of the Course: Machine Learning using Python Programming	
Resource Person: Mr. Arun Rajpurohit and Mr. N.Sridhar Murthy, Dlithe Software, Bangalore.	

Department of CSE organized Certification Program on “Machine Learning using Python Programming”. The Certification Programme was held during 27th August 2018 to 1st September, 2018. This Certification programme was held in association with Dlithe Software, Bangalore. Mr. Arun Rajpurohit and Mr. N.Sridhar Murthy Dlithe Software were the resource persons of the Certification Programme.

82 students of CSE Department were benefitted from this course and were able to

- Develop an appreciation for what is involved in Learning models from data
- Understand a wide variety of learning algorithms
- Understand how to evaluate models generated from data
- Apply the algorithms to a real problem, optimize the models learned and report on the expected accuracy that can be achieved by applying the models

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Dlithe

Be Agile.. Be in Demand

Registered Office :

No. 51, 1st Main, 6th Block, 2nd Stage,
85K, Bengaluru - 85

Development Office :

No. 3, 1st Floor, 3rd Phase, 85K, Bengaluru - 85
Opp. to Cafe Coffee Day
GST No: 29AAPFD003711126

To whomsoever concerned

This is to certify that **Pavan Kamath** bearing **4AL16CS062** has successfully undergone the workshop on **"Machine Learning Using Python Programming"** conducted by Dlithe, Bengaluru in association with Department of Computer Science and Engineering, Alva's Institute of Engineering & Technology - Moodbidri, from 27th August 2018 to 1st September 2018

Mr. Arun V Rajpurohit
CEO & Founder, Dlithe

Dr. Manjunath Kotari
HOD, OSD of Computer Science & Engineering
Alva's Institute of Engg. & Technology
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