DEPT OF AIML

In Association with

IIC, PESITM & IEEE Student Branch

Presents

2 WEEKS HYBRID MODE TRAINING
05-11-2022 TO 20-11-2022

PYTHON FOR BEGINNERS

OPEN TO ALL STUDENTS WITH NO PROGRAMMING KNOWLEDGE

COURSE TIMINGS
- **SATURDAY(5TH & 19TH OF NOV)**
  02:00 TO 05:00 PM (OFFLINE)
- **SUNDAY (6TH & 20TH OF NOV)**
  09:00 TO 05:00 PM (OFFLINE)
- WEEKDAYS (7TH TO 18TH) ONLINE:
  EVERYDAY 2 HOURS OF ASSESSMENT

Benefits to the students
- Study Material will be provided
- Course certificate will be provided
- Daily assignment and assessment will be conducted
- By end of this course, students are expected to write program using Python and the library functions

Coordinators:
- Mrs Thara K L, Asst. Prof., Dept of AIML
- Gagandeep Rao, 3rd Sem AIML
- Ananyalakshmi, 3rd Sem AIML

OUR TRAINERS:

VARUN N BHAT
Software Test Engineer
Cognizant Pvt. Ltd.
2020 Batch, CSE PESITM

HITESH KUMAR B
SOFTWARE ENGINEER
BETSOL • BANGALORE
2020 Batch, CSE PESITM

Dept. of AIML
PESITM Shivamogga

About AIML & its Scope

The industrial revolution 4.0 has introduced several new technologies that engineers need to imbibe to be relevant for the future. One among them is Artificial Intelligence and Machine Learning which is going to be a new trend that is going to shape the future and such engineers would be called as future thinking engineers. But given the new industrial revolution it has become essential that consolidation and strengthening of existing programs take place along with re-looking the engineering programs by introducing advance courses which is relevant with the new age demands. These kind of program should have specializations and there is need of futuristic courses that can keep pace with the technological and industrial advancements.

Artificial intelligence (AI) is wide-ranging branch of computer science concerned with building smart machines capable of performing tasks that typically require human intelligence. The field of artificial intelligence has been an interdisciplinary endeavor, requiring deep knowledge of both computational and human sciences.

Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer programs that can access data and use it learn for themselves.

PES Institute of Technology and Management

PESITM SHIVAMOGGA

Shortlisted by GOK for 'Super 30' Model Engineering Colleges in Karnataka

Comprehensive training for industry readiness

Experienced & dedicated staff members

World-class campus with latest equipped laboratories

Industry-Institute Interaction & Internships

700+ Placement Offers & Excellent placement in core companies

In campus boys and girls hostels

BE Courses

- ☑ Computer Science & Engg.
- ☑ Electrical & Electronics Engg.
- ☑ Electronics & Communication Engg.
- ☑ Information Science & Engg.
- ☑ Mechanical Engg.
- ☑ Civil Engg.
- ☑ Artificial Intelligence & Machine Learning
- ☑ Computer Science & Design
- ☑ Computer Science & Engg. (Data Science)

PG Courses

- ☑ Master of Business Administration (Specializations: Marketing, Finance & HR)
- ☑ Master of Computer Application (MCA)

ABOUT PESIT

PESITM is approved by AICTE, affiliated to VTU, recognized by Govt. of Karnataka & an ISO 9001 Certified Institute started in 2007. We started with department of Computer Science & Engineering, Information Science & Engineering, Electrical & Electronics, and Electronics and Communication in 2007. In 2010, Department of Mechanical was introduced and in 2013, Department of Civil Engineering was introduced. We widen our wings by introducing AIML in 2021 and Data Science & Computer Science and Design Engineering in 2022. We had also Introduced MBA program in 2008 and MCA in 2022.

Since its establishment in the year 2007, we have grown from strength to strength and is establishing our legacy as academic excellence. The sole vision is to produce good engineers with human values and Indian ethos. We always focus on the holistic development of the students by a combination of both curricular and extracurricular activities. We believe that to develop a tender mind, we need to go beyond classroom teaching and we believe to make our students' industry ready. The excellent world-class infrastructure with modern facilities, teaching faculty of the best kind, we ensure quality education and a bright future to our students.

In order to provide a real world experiential learning environment and to fill the Gap between the Industry and the Academia, this Incubation Center was established. Aim of this incubator is to provide the platform to our students to work on real time problems and get an industry exposure early in their Engineering career.

PYTHON FOR BEGINNERS

2 WEEKS HYBRID MODE TRAINING

OUR TRAINERS:

Hitesh Kumar is a software engineer at Betsol and is currently a subject matter expert for Zmanda which is a Betsol Product. He is managing a team of 20 since 2020.

He was awarded sport awards twice and team excellence award, twice. He is also the winner of Bug Bounty organized for the product team where he was able to identify 25 production bugs.

He is the winner of inter product team hackathon that was sponsored by Amazon Alexa
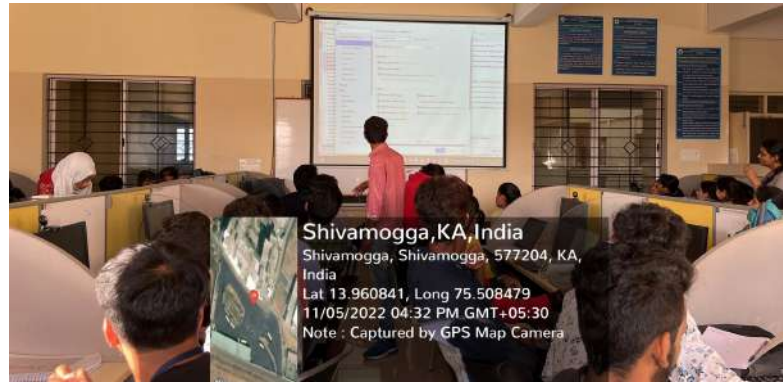
OUR TRAINERS:

VARUN N BHAT

Software Test Engineer
Cognizant Pvt. Ltd.
2020 Batch, CSE PESITM

Varun N Bhat worked as performance test engineer at Infosys Pvt. Ltd. for a period of 2 years [2020-2022]. He was nominated for outstanding fresher of the year award, 2021. He was awarded with Insta award for 3 times.

He has developed an end-to-end framework for report automation which increases work efficiency by 200%. He is currently working as performance test engineer with Cognizant Pvt. Ltd.

HITESH KUMAR B

SOFTWARE ENGINEER
BETSOL, Bangalore
2020 Batch, CSE PESITM

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Shivamogga,KA,India
Shivamogga, Shivamogga, 577204, KA,
India
Lat 13.960841, Long 75.508479
11/05/2022 04:32 PM GMT+05:30
Note : Captured by GPS Map Camera

ABOUT THE SDP

What is python

- Python is a computer programming language often used to build websites and software, automate tasks, and conduct data analysis.

- Python is a general-purpose language, meaning it can be used to create a variety of different programs and isn't specialized for any specific problems.

Frameworks in python

- Django - Full stack framework.
- Flask - Full stack framework.
- Web2Py - Full stack framework.
- Bottle - For building API's.

Libraries in python

- **TensorFlow** - For high level computation.
- **Matplotlib** - For plotting graphs for numerical data.
- **Pandas** - For data analysis, data manipulation, and cleaning of data.
- **Numpy** - For performing operations on numbers and metrices.
- **Pygame** - For designing games using python.

Python in industry (Carriers in python):

- Game developer.
- Web designer.
- Python developer.
- Full-stack developer.
- Machine learning engineer.
- Data scientist.
- Data analyst.
- Data engineer.
- DevOps engineer.
- Software engineer.

Applications built using python

- Spotify: Mobile app is built with Python. Also, Spotify's engineers used it to code the app's backend. Specifically, the app's backend consists of many interdependent services connected by their messaging protocol. And around 80% of those services are written in Python)
- Uber: Built using 2 main primary languages - NodeJS and Python.
- Quora: Majority of the code base is in python.
- Facebook: 21% of the codebase is in python. Features like, Facebook users to upload pictures, posts and update statuses are built using python.
- Instagram: Built on django framework.
- Netflix recommendation engine

PYTHON FOR BEGINNERS - DAY 1 TO 2
5-6, NOVEMBER 2022

Introduction
- The print () statement to print "Hello World"
- Experimenting with escape sequence - \n, \b, \r, \t, \v, \a etc.
- Comments in python- single line and multi-line comments.
- Datatypes in python - Number, boolean and String type
- Variables in Python
- assign multiple values in python e.g, a,b,c = 1,2,"john".
- Type() function in python.
- Use of semicolons in python (Brain teaser).

Accepting input from user.
- A basic program to accept name, USN and marks of one subject from user and print the same.
- Modify the above program and display results using format() method - format method for 1 value, more than value and indexing values for format method (myorder.format(quantity, itemno, price).
- Check the type of accepted values using type () and throw a question - how to accept integer values in python.
- Accepting integer values in python using int(input ()).
- Use of print("without text").
- Difference between input("with some text") and input()
- Fstrings.
- Program to swap two numbers.
- Concatenating two print statements into one using "end", and using sep. as separators between variables.
- Accepting multiple values in single input statement.

Operators in python
- Arithmetic, comparison, assignment, logical, membership, Identity, Bitwise.
- program to calculate how many seconds are there in week/month/year.

Conditionals

- Indentation in python: 4space bars vs 2 space bars vs 1 space.
- The if-else statement:
- program to check if a student has passed in the exam or not.
- The if-elif-else statement
- Basic chatbot using if-elif-else.
- Ternary operators:

Strings:

- Declaring a string- single quotes, double quotes, and triple quotes.
- Brain teaser: What if you want to have quotes inside your string: Case 1- single quotes/double quotes case 2: both single and double quotes (using triple quotes or escape sequence (\' or \")).
- Brain teaser: What if you want to write a poem in 4 lines. Ans: use triple quotes.
- String indexing.
- Access the string letters using its index.
- Brain teaser: What if you pass floating point numbers while indexing. Eg., str[1.0]
- The len () function.
- Index out of range error.
- Try to access last element of a string using len() function.
- Access the string letters using reverse indexing i.e., str[-1]/str[-2]
- Modifying a string: Case 1- try to modify using index (will give an error). Case 2 - modify using the entire string.
- Deleting a string using del function: i.e., str1 = "JAVATPOINT" ; del str1; print(str1)
- concatenating 2 or more strings using +.
- concatenating 2 string using "end" in print statement (try it out).
- Ques: Can you concatenate 1 string declared in single quotes with other declared in double quotes. (brain teaser)
- String repetition using *.
- Program to check if a substring/character is present in a string or not using "in" and "not in" operator.

First Step

Step

Towards Success