XAVIER INSTITUTE OF ENGINEERING
A SISTER INSTITUTION OF ST. XAVIER'S COLLEGE

Python for Data Science

DATE: 20/07/2020

Event Coordinator(s)

1. Dr. Vijay Katkar
2. Mr. Jaychand Upadhyay
3. Mr. Vijay Jumb

Time & Place:

14th May -18th July 2020

XIE Online Course

Department:

Information Technology, Computer Engineering

No of participants: 145

Ten Week "Python for Data Science" course was organized for the students of Xavier Institute Engineering, Mahim and St. Xavier's College, Fort by the Information Technology Department and Computer Engineering Department of Xavier Institute of Engineering, in collaboration with St. Xavier's College from 14th May to 18th July, 2020 on Tuesdays, Thursdays and Saturdays.

The course was designed by Fr. Dr. Thomas Schwarz, S.J., who is currently working as Associate Professor at Marquette University, USA in the Computer Science Department and associated with University of California, Santa Cruz, as Adjunct Professor.

The Course content was as follows:

- Module 1: Installing Python with IDLE. Types and variables in Python, conditional statements and loops, functions, how to think in Python
- Module 2: Python Data Structures: lists, tuples, dictionaries, strings,
- Module 3: Files, default, positional and named arguments, Python modules, anonymous functions
- Module 4: Comprehension
- Module 5: Classes and objects
- Module 6: Web Scraping
- Module 7: NumPy
- Module 8: Pandas
- Module 9: Simple classification algorithms
- Module 10: Scikit-learn, machine learning examples

Various quizzes were conducted covering all the modules to evaluate the knowledge gained. Students securing more than 60% average score of all quizzes were awarded with Completion certificates and those with more than 70% attendance were awarded with participation certificates.

Participant Feedback and Benefits:

Following points were appreciated by Participants:

- Course was well organized
- Hands-on Sessions
- Covered basics of Data Science
- Interactive Sessions

Benefits:

Participants will be able to do Data Analysis using Pandas, Numpy and implement basic methodologies of Machine Learning.

Dr. V. Katkar, Mr. J. Upadhyay, Mr. V. Jumb
Course coordinator

Ms. Chhaya Narvekar   Ms. Shushama Khanvilkar
HOD-IT   HOD-Comp

COURSE DESIGNER & ADVISOR

Dr. Thomas Schwarz, S.J., is currently working as Associate Professor at Marquette University, USA in Computer Science Department and associated with University of California, Santa Cruz, as Adjunct Professor.

RESOURCE PERSON

Dr. Vijay Katkar has completed his PhD in Computer Engineering with Specialization in Machine Learning and Network Security. His research interests are Machine learning, Computer Vision and Internet of Everything.

Mr. Jaychand Upadhyay is pursuing PhD in Information & Communication Science from Sophia University, Tokyo, Japan. His research Interests are Deep Learning and Computer Vision.

Mr. Vijay Jumb has completed Master of Engineering in Computer Engineering from Mumbai University. His research Interests are Computer Vision and Big Data Analytics.

ORGANIZING COMMITTEE

Chief Patrons

Fr. Dr. Arun D'Souza, S.J., Chairman, XIE
Fr. Dr. Keith D'Souza, S.J., Rector, St. Xavier's College
Fr. Dr. John Rose, S.J., Director, XIE

Patrons

Dr. Rajendra Shinde, Principal, St. Xavier's College
Dr. Y. D. Venkatesh, Principal, XIE
Fr. Fabian Barreto, S.J., Administrator, XIE

Conveners

Prof. Chhaya Narvekar, HoD (Information Technology)
Prof. Sushama Khanvilkar, HoD (Computer Engineering)

Coordinators

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ABOUT INSTITUTION

Xavier Institute of Engineering (XIE), a sister Institution of St. Xavier's College, Fort, Mumbai, is an Engineering college in central Mumbai, established in 2005, and is a part of an International Network of Jesuit Educational Institutions which includes 138 Universities and 3413 Educational Intuitions in 120 countries. The Jesuit Educational Network in India includes 84 Colleges, 3 Universities and 3 Engineering colleges. Jesuit educational efforts are directed to training the minds and forming the heart. The management of XIE is well known for designing and upholding the highest standards for Engineering Education. Every year around 50 companies visit XIE for campus recruitment. In a ToI Engineering Survey conducted in 2015, XIE was rated 3rd among the Private, Unaided Engineering Colleges in Mumbai. XIE is now NAAC accredited. XIE is the only Engineering college in India to have a Gait laboratory. This laboratory is sponsored by Marquette University, USA.

VISION OF XIE

To nurture the joy of excellence in a world of high technology

MISSION OF XIE

To strive to match global standards in technical education by interaction with industry, continuous staff training and development of quality of life

COURSE CONTENTS

Module 1: Installing Python with IDLE. Types and variables in Python, conditional statements and loops, functions, how to think in Python
Module 2: Python Data Structures: lists, tuples, dictionaries, strings, …
Module 3: Files, default, positional and named arguments, Python modules, anonymous functions
Module 4: Comprehension
Module 5: Classes and objects
Module 6: Web Scraping
Module 7: NumPy
Module 8: Pandas
Module 9: Simple classification algorithms
Module 10: Scikit-learn, machine learning examples

Xavier Institute of Engineering
&
St. Xavier's College

Organize
Certification Course
in
Python for Data Science

DURATION AND TIMING

10 Weeks (14th May – 18th July 2020)
Three Days a Week (Tuesday, Thursday, Saturday)
Timing: 10.30 am to 12.30 pm
Platform: Zoom

REGISTRATION

Students of St. Xavier's College and Xavier Institute of Engineering Only (First and Second Year Students only)

Participants can register online. **(No certification fee)**

Registration Link: https://forms.gle/1H5PckTm3FEbFro39

Complete your registrations on or before 11th May, 2020 (Before 3.00 pm)

Total number of participants will be limited to 60

Note: Certificates will be issued to those participants who have completed the programme with all the assignments.