

DATE: 20/07/2020

## Event Coordinator(s)

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

## Time & Place:

11th May -17th July 2020

XIE-Online

## Course Department:

Information Technology,  
Computer Engineering

No of participants: 40

Ten Week “Python for Data Science” course was organized for the Teaching Faculty of Xavier Institute Engineering, Mumbai and other colleges by the Information Technology Department and Computer Engineering Department of Xavier Institute of Engineering, in collaboration with St. Xavier’s College, Fort from 11<sup>th</sup> May to 17<sup>th</sup> July, 2020 on Monday, Wednesday and Friday.

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

Hands-on assignments were given to the participants covering all the modules to evaluate the knowledge gained. Participants securing more than 60% average score 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:

- Knowledge of resource person
- Real-time examples of applications
- Interactive Sessions
- Quality of Study Material

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

## RESOURCE PERSON

**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.

His research interests are Scalable Distributed Data Structures, Large Scale Storage Systems, High Availability, Erasure Correcting Codes and Security. He has more than 120 research publication with more than 2700 citations to his credit since 2000.

## 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 Institutions 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 3<sup>rd</sup> 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  
on  
**Python for Data Science**



## DURATION AND TIMING

**10 Weeks (11<sup>th</sup> May – 17<sup>th</sup> July 2020)**  
**Three Days a Week (Monday, Wednesday, Friday)**  
**Timing: 8.00 am to 10.00 am**  
**Platform: Zoom**

## REGISTRATION

Faculty of various Universities/Institutes and PhD students can apply.  
Participants can register online. **(No course, certification fee)**  
Link for registration: <https://forms.gle/aPPv08b96vsaXU097>  
Complete your registrations on or before 10<sup>th</sup> May, 2020 (Before 5.00 pm)  
Total number of participants will be limited to 30.  
**Note: Certificates will be issued to those participants who have completed the programme with all the assignments.**