

## About the Institute

Walchand College of Engineering Sangli (WCE) was established in 1947 and aided by the Govt. of Maharashtra, is one of the oldest and premier engineering institutions in India. With a rich history of over 70 years and a beautiful campus of over 90 acres, we are providing transformational learning experience in various disciplines of engineering.

WCE offers 6 UG programs in Civil, Electrical, Mechanical, Electronics, Information Technology and Computer Science and Engineering and 10 PG programs. It also offers Ph.D. programs under Shivaji University, National Doctoral Fellowship of AICTE and under Quality Improvement Program (QIP) scheme of Ministry of Human Resource Development (MHRD). At present around 1900 students are studying in various B.Tech. programs, 480 students in M.Tech. programs and around 75 scholars are pursuing their Ph.D. programs.

Mechanical Engineering Department is one of the oldest departments in the Walchand College of Engineering, Sangli. It is established in 1955. Currently it is running one undergraduate program i.e. B. Tech in Mechanical Engineering with intake of 60 seats and three post graduate programs i.e. M. Tech in Mechanical-Production Engineering; program with intake of 30 seats, M. Tech in Mechanical - Heat Power Engineering; program with intake of 18 seats and M. Tech in Mechanical - Design Engineering; program with intake of 30 seats.

### VISION

To produce capable graduate engineers with an aptitude for research and leadership

### QUALITY POLICY

To strive for excellence in academic and research and programmes in order to achieve proficiency in students by adopting continually improving standards to the learning process

### MISSION

To impart quality education through demanding academic programmes

To enhance career opportunities for students through exposure to industry

To promote excellence by encouraging creativity, critical thinking and discipline

To inculcate sensitivity toward society and a respect for the environment

# Walchand College of Engineering

(Government Aided Autonomous Institute affiliated to Shivaji University)

## Vishrambag, Sangli

### Value Added Course

Offered by  
Department of Mechanical Engineering

on  
**Data Processing and  
Visualization with Python**

20/11/2021 to 08/01/2022

(Every Saturday)



#### Course Coordinators

Dr. D. A. Patil

Dr. K. H. Inamdar  
Head of the Department

Prof. P. H. Sawant  
Director

[www.walchandsangli.ac.in](http://www.walchandsangli.ac.in)

## About the Course

This course has been structured in such a way that engineering/MCA/BCA students and faculties can understand data generation process and effective data visualization techniques through Python. It will be very useful tool to plot results or generate graphs from data obtained through experimentation. Course covers all the basic terminology of python and data science foundation, so that participants can discover advance module on their own.

## Course Objective:

To understand the fundamentals of Python language and its usage for data processing and visualization purpose

## Course Contents

- Basic
  - > Intro to python and installation IDE (Python 3.x / Jupyter / Pycharm)
  - > Data types – Simple (int, string, boolean, none), complex (list, tuple, set, dictionary)
- Basic
  - > Built in functions
  - > Looping concepts – Selective Looping, Iterative Looping, Transfer Looping
- File Handling – (Csv, Excel, Txt, Json)
- Data Processing and Cleaning: Numpy / Pandas
- Data Visualization: Matplotlib / Seaborn (Line Chart, Bar Chart, Pie Chart)
- Data Visualization: Matplotlib / Seaborn (Histogram, Scattered Plot)
- Hands on Assignment on Visualization

## Course Examination Scheme

Exam Type	Max Marks	Duration (min)
Lab-1	20	30
Lab-2	20	30
End Exam	60	90

## Important Dates

**Last Date of Registration:** 19<sup>th</sup> November 2021

**Course Start Date:** 20<sup>th</sup> November 2021

**Course End Date:** 08<sup>th</sup> January 2022

## Who can register?

Any engineering, MCA, BCA student/faculty with prerequisite as Computer competency, programming fundamentals

## Bank Details

Bank Name : Bank of India  
Branch : Vishrambag, Sangli  
IFSC Code : BKID0001507  
Account No : 150710110000187  
MICR Code : 416013154

## Course Registration Fees

₹ 1300/- (Rupees One Thousand Three Hundred only)

## Trainers

Course Coordinator  
Dr. Digvijay A. Patil  
Asst. Professor (Heat Power PG)  
B.E. (Shivaji Uni. Kolhapur)  
M. Tech. (Dr. B.A.T.U. Lonere)  
Ph.D. (IIT Indore)

Expert from industry  
Mr. N. A. Patil  
Python Developer  
B.E. (Govt. Engg. College Jalgaon)  
M. Tech. (Dr. B.A.T.U. Lonere)

## Registration Link

<https://forms.gle/pMcAR8h8TPLg4zLx9>

Contact us on 9890017823 or [digvijay.patil@walchandsangli.ac.in](mailto:digvijay.patil@walchandsangli.ac.in)  
For more information you can fill our google form on following link  
<https://forms.gle/JXVw4hWEHoxMTZ3w5>



The Department of Mechanical Engineering  
Walchand College of Engineering, Sangli  
Offered a  
Value Added Course

## DATA PROCESSING AND VISUALIZATION WITH PYTHON



This course has been structured in such a way that engineering students and faculties can understand data generation process and effective data visualization techniques through Python. It will be very useful tool to plot results or generate graphs from data obtained through experimentation. Course covers all the basic terminology of python and data science foundation, so that participants can discover advance module on their own.

Course Coordinator

**Dr. Digvijay A. Patil**

Asst. Professor (Heat Power PG)

B.E. (Shivaji Uni. Kolhapur)  
M. Tech. (Dr. B.A.T.U. Lonere)  
Ph.D. (IIT Indore)

Pre-requisite for Training:- Personal System for hands on (Windows-10/Linux/ Mac)

Course Objectives: To understand Python language fundamentals and its use for data processing and visualization purpose.

Expert from industry

**Mr. N. A. Patil**

Python Developer

B.E. (Govt. Engg. College Jalgaon)  
M. Tech. (Dr. B.A.T.U. Lonere)

### TRAINING CONTENT

Basic

- Intro to python and installation IDE (Python 3.x / Jupyter / Pycharm)
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- Built in functions
- Looping concepts – Selective Looping, Iterative Looping, Transfer Looping

File Handling – (Csv, Excel, Txt, Json)

Data Processing and Cleaning: Numpy / Pandas

Data Visualization: Matplotlib / Seaborn (Line Chart, Bar Chart, Pie Chart)

Data Visualization: Matplotlib / Seaborn (Histogram, Scattered Plot)

Hands on assignment on Data Visualization

The 13-hour course is proposed to start on Saturday (20/11/2021), with an expected schedule of 2 hours per week.

Course Fees: Rs.1300/- including Exam fees of Rs. 300/-

**RS. 1300/-**

**Certificate will be issued to the participants, after successful completion of the course**

Students/Participants can give their response on the Google Form from the link given below.

<https://forms.gle/7ZbQxtD2Tdh83Lhw7>

or register on <https://forms.gle/pMcAR8h8TPLg4zLx9>

The interested students/participants can contact me on 9890017823 or write us on [digvijay.patil@walchandsangli.ac.in](mailto:digvijay.patil@walchandsangli.ac.in)