WALCHANDCOLLEGEOFENGINEERINGSANGLI

(AnautonomousinstitutionaffiliatedtoShivajiUniversity)

OneCredit

VALUEADDEDCOURSE

(ApprovedunderCenterforContinuingEducation)

On

Data Science with Machine Learning

From

5ᵗʰ Feb. 2024 to 10ᵗʰ Feb. 2024

CourseCo-ordinators

Mrs. Leena V. Patil	Mrs.Amruta M. Chimanna
AssistantProfessor	AssistantProfessor

Dr.U. A. Dabade

Director

Mr. N. V. Marathe

CCECoordinator

Dr. M. A. ShahHOD,Departmentof CSE

WALCHANDCOLLEGEOFENGINEERING,SANGLI416415

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ABOUTWALCHANDCOLLEGEOFENGINEERING

Walchand College of Engineering Sangli (WCE), established in 1947 and aided by theGovt. ofMaharashtra, is oneoftheoldest andpremierengineeringinstitutions in India. With a rich history of over 70 years and a beautiful campus of over 90- acres, WCE Sangli, is providing transformational learning experience in various disciplines ofengineering.

WCE offers 6 UG programs in Civil, Electrical, Mechanical, Electronics, Computer Science and Engineering and Information Technology and 10 PG programs. It also offers PhD programs under Shivaji University, National Doctoral Fellowship of AICTE and under Quality Improvement Program (QIP) scheme of Ministry ofHuman Resource Development (MHRD). At present, around 1900 students are studyinginvarious B.Techprograms,480studentsin M.Techprogramsandaround 75 scholars are pursuing their PhD programs. Walchand College of Engineering is affiliated to Shivaji University Kolhapur and is approved by AICTE, New Delhi. The institute is also given autonomous status by University Grants Commission since 2007.

The students of WCE get placed in reputed Multinational and Indian Companies such as Google, Microsoft, LinkedIn, Amazon, John Deere, Rakuten, P&G, Mahindra, TCS, Infosys and many other companies. With a high percentage of placements,WCEstudentsalsoget verygoodpackages, withthehighestpackage being 43 LPA.

Through the Transformational Teaching Learning (TTL) processes, WCE aims at overall development of students with focus on Education, Employability and Employment. The Track Based Curriculum and Choice Based Credit System along with ValueAdded Professional and Life Skill Courses at WCE, enable students to choose appropriate path of their career.

ABOUTCOMPUTERSCIENCEANDENGINEERINGDEPARTMENT

The CSE department of WCE has been established in the year 1986 with the introduction of Undergraduate Programme in Computer Science and Engineering. The UG and PG programmes of the department are affiliated to Shivaji University, Kolhapur and use the academic autonomy for the overall development of students with focus on Education, Employability and Employment.ThePh.D.ProgrammeinthedepartmentwhichrunsunderAICTE's QIP has boosted the research culture further. The department also provides research guidance to Ph.D. students of Shivaji University, Kolhapur. Many researchers have completed their Ph.D. research work at the department. The strong research culture, fully equipped computing facility and well qualified faculty and staff are the key highlights of the department.

COURSEINTRODUCTION

Department of CSE has launched value added Programme on Data Science with Machine Learning to advances for Every learner under Center for Continuing Education (CCE). This course is designed to introduce the participants to the exciting area of Data Science. Starting from the basics of Python, Data processing and Data visualization techniqueswith machine learning are introduced. Focus is also given to some Dimensionality Reduction techniques.The emphasis is on providing insight and feel for each technique, rather than the theory. A crucial part of this course is the hands-on sessions. About half the course time is spent on the hands-on sessions and demos. The hands-on sessions show how to program and implement various data science techniques in different real-world applications. Python based libraries are used throughout the courses for software exercises. Lastly, demos show how to develop and deploy industry based project of this domain.

PROGRAMMEOBJECTIVES
- ToexcelparticipantsinMachine learning technology to use in Data Science.
- Totrainandguideparticipantstodocutting-edgeresearchintheareas related to the Data Science.
- Tograspdepthof Data Science in creationandsolveproblemof real-life using Machine learning.

COURSE CONTENT
The syllabus of the course typically consists of 6 modules namely Basics of Pythonand data science, Data Preprocessing, Data Visualization, Machine Learning techniques, Dimensionality reduction and industry project development.

VENUEFORCLASSES

OfflineMode: Mini CCF, Computer Science and Engineering Department , WCE Sangli.

FACULTY/ SPEAKERS

S. N.	Name	Oraganization	Affiliation
1.	Mr. Tushar B. Kute	MITU Skillologies,Pune	Data Analyst
2.	Mr. Aditya Thakare.	MITU Skillologies, Pune	Data Analyst

IMPORTANTDATES

- Thecoursewillbeorganizedduring**5thFebto10thFeb2024.**

- Deadlineforsubmittingapplication:**4thFeb2024.**

- Notificationofacceptance:**5thFeb2024**

Note:Incompleteapplicationformswillnotbeentertained.Pleasefilltheform carefully.

ELIGIBILITYFORCOURSERESGISTRATION

TY , BTECH and MTECH CSE students of WCE only

ELIGIBILITYFORCOURSECERTIFICATE

All participants who have successfully attended the sessions and completed the assignments within given time and who have passed the final exam (which will be scheduled at the end of course) with 40% marks they will be eligible for certificate.

REGISTRATION

Candidatesshouldcompletetheregistrationbysubmittingtheform **online**(thelink is given below). Candidate need to pay registration fees **online**. A link for online payment is also provided below. Confirmation of eligible candidates will be on afirst come first served basis.

Registrationfees:

S.N.	Topic	Amount
1.	Participation + Exam + Certificate	300/-

Paymentoffees:

Accountdetails

Walchand College of Engineering   A/c No.: 59219472021002

IFSC: HDFC0000222

Registrationformlink: https://forms.gle/pAjJNwazhtpjK25Z7

Formoredetailsvisit:http://wce-valueadded.herokuapp.com/

AddressforCorrespondenceandEnquiries: Course Coordinator:

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   Email-leena.patil@walchandsangli.ac.in

2. **Mrs. Amruta M. Chimanna**
   Mob-8329101193
   Email-amruta.umrani@walchandsangli.ac.in

COURSESCHEDULE

S.N.	Topic	Date and Time	Hours required
1.	Python Programming, Data Science Basics	5th Feb 2024, 10.30 AM to 5.30 PM	06
2.	Data Science Pre-processing, Data analytics Process.	6th Feb 2024, 10.30 AM to 5.30 PM	06
3.	Data visualization, Advance data visualization, Feature extraction, feature selection.	7th Feb 2024, 10.30 AM to 5.30 PM	06
4.	Machine learning techniques, Regression, classification and clustering hierarchical algorithms.	8th Feb 2024, 10.30 AM to 5.30 PM	06
5.	Association rules algorithms, Dimensionality reduction, outer detection and removal, neural network based learning	9th Feb 2024, 10.30 AM to 5.30 PM	06
6.	Data science industry project development.	10th Feb 2024, 10.30 AM to 5.30 PM	06