INDEX

6.3.3 Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), professional development /administrative training programs during the A.Y. 2021-22

Dates (from-to) (DD-MM-YYYY)	Title of the FDP / professional development / administrative training program	No. of participants	Link to relevant document / brochure / report hosted on official institutional website
26/07/2021 to 30/07/2021	FDP on Data Science and Artificial Intelligence	2	
03/08/2021 to 03/08/2021	One day Online FDP on "Theory Of Computation"	1	
30/08/2021 to 04/09/2021	FDP on Cloud Computing with AWS	1	
27/09/2021 to 01/10/2021	FDP on Digital Teaching Techniques	5	
15/02/2022 to 15/02/2022	FDP on Product innovation in AI & ML	1	
03/03/2022 to 05/03/2022	FDP ON Applications of Machine Learning and Deep Learning for Engineering Problem Solving	15	
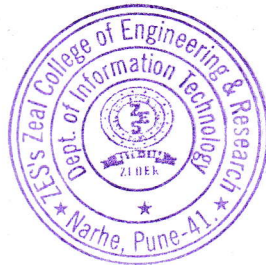
HOD
Dept. of Information Tech. Engg.
ZES's Zeal College
of Engineering & Research,
Narhe, Pune - 411 041

Marathwada Mitra Mandal's
COLLEGE OF ENGINEERING
Karve Nagar, Pune 411052

Accredited with 'A' Grade by NAAC | NBA Accreditation: Electrical & Mechanical Department | Recipient of 'Best College Award 2019' by SPPU

Department of Information Technology
FDP *on Data Science and Artificial Intelligence*
CERTIFICATE OF PARTICIPATION

This Certificate is presented to

Prof Sneha Pradip Vanjari
of
Prof Sneha Pradip Vanjari

For Participation in One week Faculty Development Programme on Data Science and Artificial Intelligence held on 26/07/2021 to 30/07/2021.

Certificate ID: *BJLIRG-CE000147*

Ms. Shital Kakad & Ms. Rashmi Bhattad	Dr. V. S. Bidave	Dr. S. M. Deshpande
FDP Co-ordinator	**HOD, IT**	**Principal, MMCOE Pune**

Marathwada Mitra Mandal's
COLLEGE OF ENGINEERING
Karve Nagar, Pune 411052

Accredited with 'A' Grade by NAAC | NBA Accreditation: Electrical & Mechanical Department | Recipient of 'Best College Award 2019' by SPPU

Department of Information Technology
FDP *on Data Science and Artificial Intelligence*
CERTIFICATE OF PARTICIPATION

This Certificate is presented to

PATIL SUPRIYA VIJAY

of

Zeal College of Engineering

For Participation in One week Faculty Development Programme on Data Science and Artificial Intelligence held on 26/07/2021 to 30/07/2021.

Certificate ID: *BJLIRG-CE000195*

Ms. Shital Kakad & Ms. Rashmi Bhattad	Dr. V. S. Bidave	Dr. S. M. Deshpande
FDP Co-ordinator	**HOD, IT**	**Principal, MMCOE Pune**

Made for free with Certify'em

Bharati Vidyapeeth's
College of Engineering, Lavale, Pune.

Department of Computer Engineering

Certificate Of Participation

One day Online FDP on "Theory Of Computation"

This is to Certify that ,

Dr./Prof./Mr./Mrs./Ms. **PATIL SUPRIYA VIJAY**

has participated in One Day Faculty Development Program on **"Theory Of Computation"** Organized by the Department of Computer Engineering, Bharati Vidyapeeth's College Of Engineering, Lavale, Pune. In Association with SPPU, Pune on **3rd August 2021.**

Prof. U.C.Patkar	Dr. Pramod Patil	Dr. Varsha Patil	Dr. R.N.Patil
Head Of Department (Computer Engineering)	BOS Member SPPU	Chairperson,BOS. Computer (SPPU)	Principal, BVCOEL.

Certificate ID: RZMTYO-CE000047

Department: Information Technology

Semester: I

Academic Year: 2021-22

Date: 02/10/2021

Faculty Development Program
On
"Digital Teaching Techniques"

For enhancing the understanding of faculties about "Digital Teaching Techniques "and to make learning more engaging for students IT Department has organized a Faculty Development Program a certificate course on " Digital Teaching Techniques" for teachers initiated by Atos & Syntel and implemented by ICT academy.

The details of the host of this session are as given below.

Details of Host:

Name of Expert:	Mr. Sunil Borah
Designation:	Senior Trainer – Training and Research
Organization:	ICT Academy
Experience:	-
Date:	27/09/2021-01/10/2021
Time and Duration:	10:00 AM -12.30PM & 02hrs :30Minutes

Online Meeting platform: Cisco Webex

DAY and Date	Time	Link	Faculty count of ZCOER Present for Meeting
27/09/2021	10:00 AM to 12:30PM	https://ictacademy.webex.com/ictacademy/j.php?MTID=m6290e1443ba3552b9cc77f22df95072e	5
28/09/2021	10:00 AM to 12:30PM	https://ictacademy.webex.com/ictacademy/j.php?MTID=m6290e1443ba3552b9cc77f22df95072e	5
29/09/2021	10:00 AM to 12:30PM	https://ictacademy.webex.com/ictacademy/j.php?MTID=m6290e1443ba3552b9cc77f22df95072e	5
30/09/2021	10:00 AM to 12:30PM	https://ictacademy.webex.com/ictacademy/j.php?MTID=m6290e1443ba3552b9cc77f22df95072e	5
01/10/2021	10:00 AM to 12:30PM	https://ictacademy.webex.com/ictacademy/j.php?MTID=m6290e1443ba3552b9cc77f22df95072e	5

Following faculty members are successfully attended & completed has this FDP:

Prof. Jyoti M. Sandur (IT)

Prof. Pramod Magade (Mech)

Prof. Nilima Deore (Comp)

Prof. C.R. Parab (Civil)

Prof. Kanchan Joshi (E&TC)

TECHNOLOGY CAN MAKE

YOU DO ORDINARY THINGS IN AN EXTRAORDINARY WAY

S'Prayas

an Atos CSR Initiative

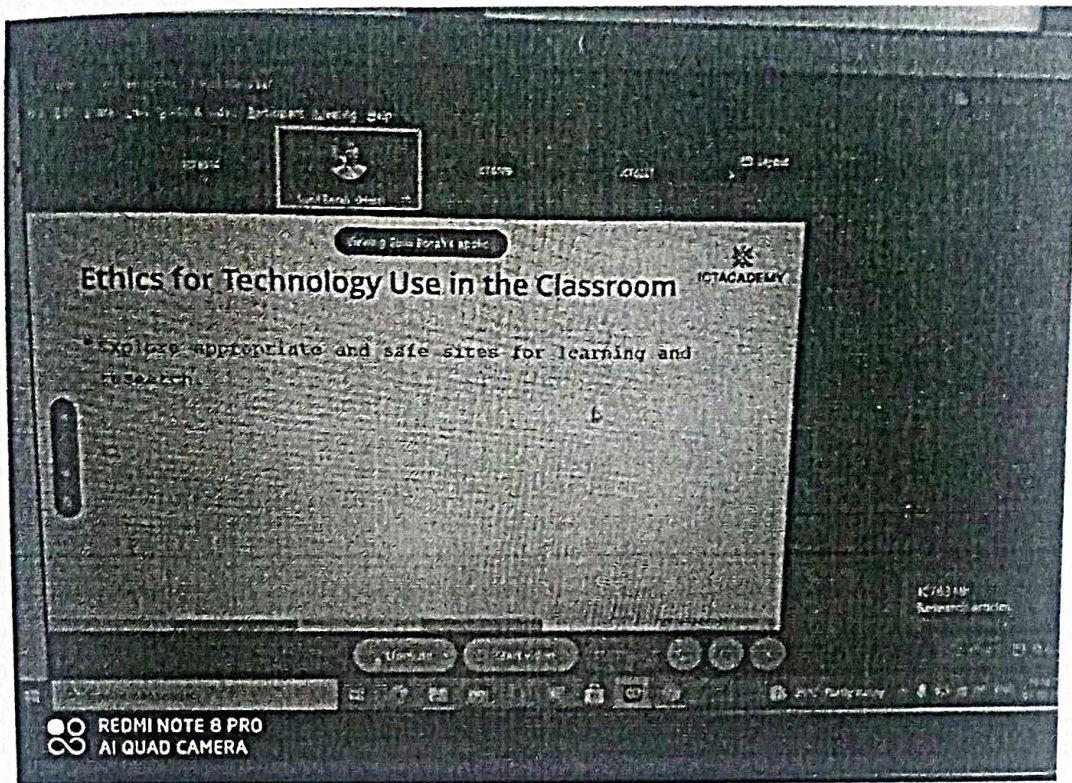In association with

ICTACADEMY

Launches

CERTIFICATE COURSE ON
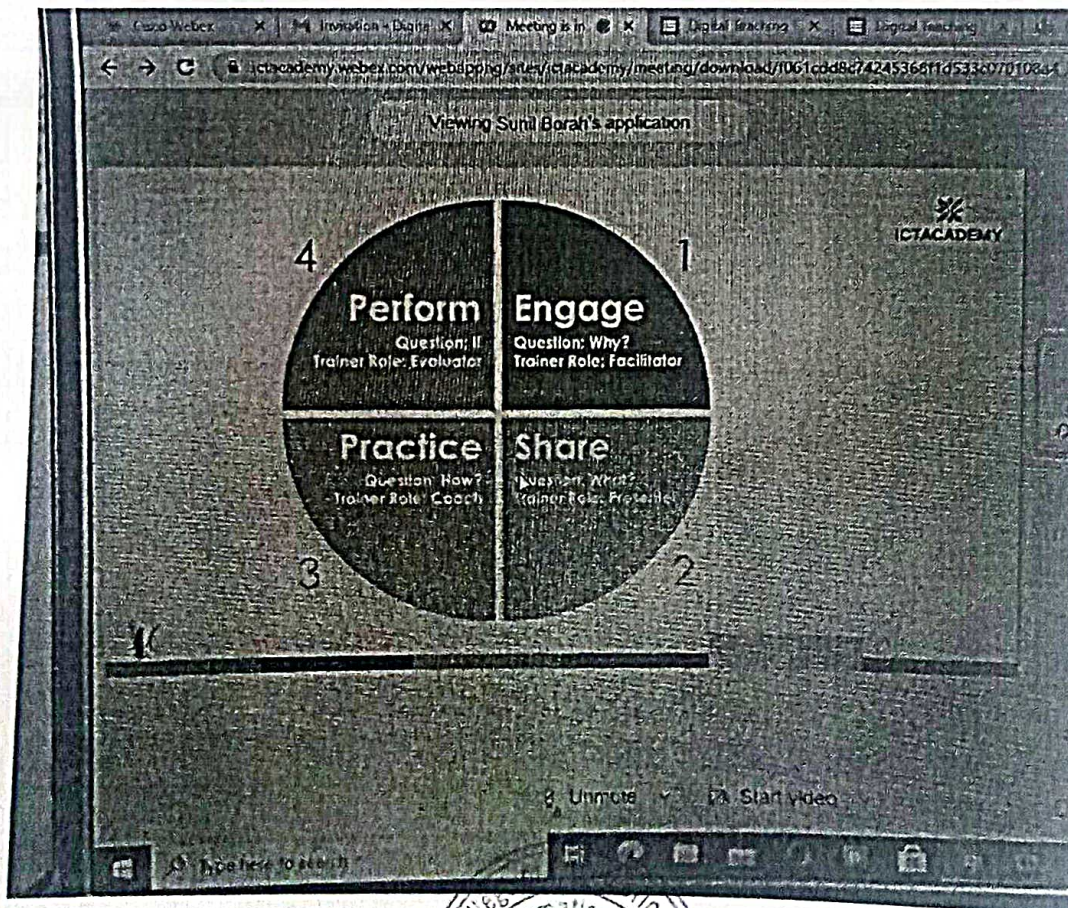
DIGITAL TEACHING TECHNIQUES

27 Sep - 01 Oct 2021 (10:00 am - 12:30 pm)

"Prospectus of Digital Teaching Techniques"

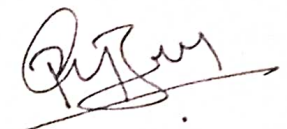*"Prof. Sunil Borah asked about ethics of technology used in classroom"*

"Prof.Sunil Borah explains various roles of trainer in digital classroom"

Host has solved all the queries of faculty members. While conducting sessions for all the 5 days he has sent various poll links to ask questions and it was the other way of taking feedback of the session.

The session was very much informative to all the faculties. After completion of this certificate course on "Digital Teaching Techniques" all faculties are now aware of how to handle digital classrooms and how to keep students engaged. So that the Digital Teaching & learning process will be very much fruitful.

ICT Co-ordinator
ZCOER,Pune.

Head of Department

Information Technology
HOD
Dept. of Information Tech. Engg
ZES's Zeal College
of Engineering & Research,
Narhe, Pune - 411 041
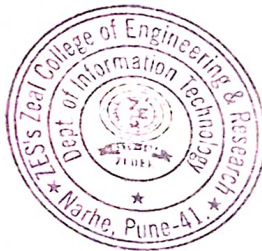
zensar   **⟨⟩RPG FOUNDATION**

Prof. Jayesh Sarwade of
Zeal College of Enginnering and Research, Narhe, Pune

For participating in four days Faculty Development Program on Product Innovation in AI & ML conducted by RPG Foundation as part of ESD program.

15 / 02 / 2022

DATE

Smruti Das

CHIEF OPERATING OFFICER, RPG FOUNDATION

Three days Faculty Development Program
On

"APPLICATIONS OF MACHINE LEARNING AND DEEP LEARNING FOR ENGINEERING PROBLEM SOLVING"

OBJECTIVE AND SCOPE:

Deep learning is a subset of machine learning in artificial intelligence (AI) that has networks capable of learning unsupervised/supervised from data that is unstructured or unlabelled. It imitates the workings of the human brain in processing data and creating patterns for use in decision making. Deep learning is achieving state-of-the-art results across a range of difficult problem domains like self-driving cars, Healthcare, computer vision, Automatic Machine Translation, and Finance, etc.

- The objective of the FDP is to introduce fundamentals of deep learning with real-time applications in various domain
- This FDP will be a very useful platform for faculty and researchers to update their knowledge
- This FDP also focuses on exploring various research opportunities and challenges in the field of Deep learning, and its applications.
- Learn the various aspects of data handling and how information can be extracted from data and build a deep learning based model.

TOPICS TO BE COVERED:

1. Overview of Machine Learning
2. Supervised / Unsupervised / Semi-Supervised Learning
3. Overview of Deep Learning Framework
4. Applications of Deep Learning
5. Introduction to Deep Learning and Neural Networks
6. Artificial Neural Networks, Multi-layered Neural Networks
7. Deep Learning Frameworks and Packages
8. Cost Function, Activation, Gradient Descent for Logistic Regression
9. Sigmoid Model, Sigmoid Loss function
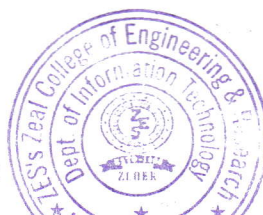
10. Back propagation DNNs (Deep Neural Networks)

11. Vanishing Gradient and Exploding Gradient problems ,Gradient Checking, Early stopping, dropouts and other methods for data normalization, Optimization Algorithms, ADAM

12. Deep Neural Net optimization, tuning, interpretability

13. CNNs (Convolutional Neural Networks)

- Introduction, basic building blocks,
- Convolutional Concept
- Padding, strides,
- Pooling layers
- Fully connected
- Applications and Use Cases

14. Transfer Learning , RNNs (Recurrent Neural Networks)

15. Hands-on Session using Python (sklearn, Tensorflow, Keras etc)

16. Overview of Python & Libraries for ML and DL (Installation & Hands-on Convolution Neural Network with Tensor flow.

- **Assignment –Session 1 Lab:**
    - Implement the main steps of a Shallow Neural Network
    - Understand the dataset
    - Implement your first Forward and Backward propagation

- **Assignment – Session 2 Lab :**
    - Implement activation function, gradient descent
    - Build Neural Network Model
    - Test and optimize the model
    - Make Predictions

- **Assignment – Session 3 Lab :**
    - Implement Regularization,
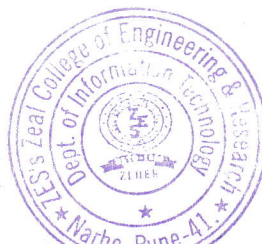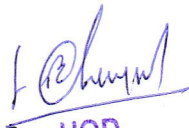
- Dropouts

- Improve performance of the learning algorithms

- **Assignment – Session 4 Lab :**

  - Digit MNIST exercises using Keras and tensorflow

  - Fashion MNIST exercises using Keras and tensorflow.
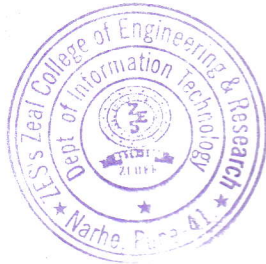
HOD
Dept. of Information Tech. Engg
ZES's Zeal College
of Engineering & Research
Narhe, Pune - 411 041

Last date of registration: 02/03/2022

FDP will be conducted online through Google Meet

Time : 2.00 pm to 5.00 pm

Resource persons are from renowned academic institutes.

Topics Covered:

- Supervised / Unsupervised / Semi-Supervised Learning
- Overview of Deep Learning Framework
- Applications of Deep Learning
- Introduction to Deep Learning and Neural Networks
- Artificial Neural Networks, Multi-layered Neural Net
- Deep Learning Frameworks and Packages
- Cost Function, Activation, Gradient Descent for Logistic Regression
- Sigmoid Model, Sigmoid Loss function
- Back propagation DNNs (Deep Neural Networks)
- Vanishing Gradient and Exploding Gradient problems ,
- Gradient Checking, Early stopping, dropouts
- Deep Neural Net optimization, tuning, interpretability
- CNNs (Convolutional Neural Networks)

Hands-on session 1:
Implement the main steps of a Shallow Neural Network Understand the Dataset Implement your first Forward and Backward propagation

Hands-on session 2 :
Implement activation function, gradient descent Build Neural Network Model Test and optimize the model Make Predictions

Hands-on session 3 :
Implement Regularization, Dropouts Improve performance of the learning algorithms

Hands-on session 4 :
Digit MNIST exercises using Keras and tensorflow Fashion MNIST exercises using Keras and tensorflow.

CHIEF PATRON

HON. SHRI. S. M. KATKAR
Founder Director,
ZES, Pune

HON. SHRI. J. S. KATKAR
Secretary,
ZES, Pune

PATRON

Prof. U. S. Shid
Director Academics,
Admission & Administration
Zeal Education Society, Pune

Dr. A. M. Kate
Principal,
ZCOER, Pune

CONVENER

Prof. Rahul H. Bhole
HOD, Information Technology
ZCOER,Pune

Dr. Swapnaja Ubale
HOD, AI & Data Science
ZCOER,Pune

COORDINATOR

Prof. Jayesh M. Sarwade
Mob.9860834782
E-mail: jayesh.sarwade@zealeducation.com

ORGANISING COMMITTEE

Prof. Supriya Patil
Prof. Ankita patil
Prof. Anuja Garande
Prof. Seema Vanjire

Prof. Vidya Kantale
Prof. Sambhaji Zinje
Prof. Poonam Chavan

TARGETED PARTICIPANTS

Faculty Members of IT, Comp & E & TC Dept, ZCOER,Pune
Faculty Members of Comp & E & TC Dept, Zeal Polytechnic, Pune

Registration is FREE

Certificate:
E-Certificate will be issued by institute to participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test.

REGISTRATION LINK
shorturl.at/lwA45

Scan QR Code
For registration

ZEAL INSTITUTES
www.zealeducation.com
NARHE I PUNE I INDIA
ESTD-1996

ZEAL COLLEGE OF ENGINEERING AND RESEARCH, PUNE - 41

FACULTY DEVELOPMENT PROGRAM
on
"APPLICATIONS OF MACHINE LEARNING AND DEEP LEARNING FOR ENGINEERING PROBLEM SOLVING "

Organized by
DEPARTMENT OF INFORMATION TECHNOLOGY
&
ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

(Date : 03 March 2022 to 05 March 2022)

ABOUT INSTITUTE

Zeal Education Society is established in year 1996 by Hon. Shri. S. M. Katkar, an eminent industrialist committed to noble cause of education. Society runs eight institutes from Pre-primary to PhD courses. It caters to educational needs of more than 7000 students, and it's continuously expanding to cope up with growing demands in the field of technical education.

ZCOER is established in 2007 which symbolized the beginning of new era in technical education. The college offers UG engineering degree courses in Civil Engineering, Computer Engineering, Electrical Engineering, Information Technology, Electronics & Telecommunication, Mechanical Engineering, Artificial Intelligence & Data Science and Robotics & Automation. The college also offers PG courses in Computer Engineering (Data Science), Electrical Engineering (Power System), Electronics & Telecommunication (VLSI and Embedded System), Mechanical Engineering (Design, CAD/CAM) and Master of Business Administration. The institute has also granted as PhD research center in Electronics & Telecommunication and Mechanical Engineering under Savitribai Phule Pune University, Pune (SPPU) since 2013. With state of the art research, infrastructural, sports, cultural facilities, the campus provides excellent academic ambience for the students. Hence it is one of the sought after engineering colleges in Pune.

ABOUT IT DEPARTMENT

The Department of Information Technology at Zeal College of Engineering and Research, Pune was established in the academic year 2007, offering a four year B.E. Program in Information Technology. The Department aims to create I.T. engineers who are skilled and proficient in the skills demanded by the industry and are well-equipped with the required knowledge to make long strides in their career.

The Department is equipped with state of the art infrastructure which includes 10 well equipped laboratories for curriculum implementation. Highly dedicated experienced faculty members with specialization in various technologies are the pillars behind the continual success of the department. The persistent efforts of the faculty have ensured that the students achieve more than merely the learning outcomes set in the curriculum.

The Department places emphasis on the skill development of students so as to make them industry ready and in a position to tackle the most challenging problems head-on. Students are provided various skill development programs consistent with industrial requirements by the Center of Excellence. The Department has also established a Big Data Center of Excellence, Software Testing & quality Assurance Center, Cyber Security Center of Excellence, Red Hat Centre of excellence, Free and Open Source Software Center of Excellence, Microsoft Imagine Academy with the intention of helping the students with Skill Development, Project Development, and Research & consultancy work.

The Department is associated with the International Software Testing Qualification Board, Pallo Alto Networs-USA, Spoken Tutorial IIT Bombay, Amazon Web services Educate, DELL EMC, Oracle Academy for the purpose of facilitating an effective knowledge transfer process and for providing international certification programs. than merely the learning outcomes set in the curriculum.

ABOUT AI & DATA SCIENCE DEPARTMENT

Artificial Intelligence and Data Science (AI &DS) is an undergraduate programme with advanced learning solutions imparting knowledge of advanced innovations like artificial intelligence, data science, machine learning and deep learning. The main goal of artificial intelligence (AI) and data science (DS) is to program computers to use example data or experience to solve a given problem.

Artificial intelligence is no longer a thing of the past but instead has become a greater part of our everyday lives. From getting your groceries delivered to prompting Alexa to play your favorite song, AI is living within us.

This specialized engineering degree course is specially designed to enable students to build intelligent machines, software, or applications with a cutting-edge combination of machine learning, analytics and visualization technologies.

VISION & MISSION OF DEPARTMENT

Vision :
To nurture the wisdom of young minds through modern, qualitative and interdisciplinary research oriented education to become a successful IT Professional.

Mission :
- Advancing knowledge through fundamental and applied research
- To encourage students for Innovative development and higher studies.
- To motivate the crux of learners towards real time solutions.
- To prepare skillful engineers for industry to cater best in IT Enabled Services.
- To nourish a students' leadership skills by inculcating personal touch and respect in relationships.

The objectives of FDP :

Deep learning is a subset of machine learning in artificial intelligence (AI) that has networks capable of learning unsupervised/supervised from data that is unstructured or unlabeled. It imitates the workings of the human brain in processing data and creating patterns for use in decision making. Deep learning is achieving state-of-the-art results across a range of difficult problem domains like self-driving cars, Healthcare, computer vision, Automatic Machine Translation, and Finance, etc.

- The objective of the FDP is to introduce fundamentals of deep learning with real-time applications in various domain
- This FDP will be a very useful platform for faculty and researchers to update their knowledge
- This FDP also focuses on exploring various research opportunities and challenges in the field of Deep learning, and its applications.
- Learn the various aspects of data handling and how information can be extracted from data and build a deep learning based model.