A Report of FDP on "DEEP LEARNING USING PYTHON"

A six-day faculty development program, approved and funded by G.T.U, Ahmedabad & I.S.T.E, New Delhi on "**DEEP LEARNING USING PYTHON**" was held at S. N. PATEL Institute of Technology & Research Centre, from Dec 17th to 22nd, 2018. The FDP aimed to provide opportunities to faculty members to enrich their teaching skills. The programme also intend to develop the knowledge of participants with active and hands on learning in the field of Deep learning and Python. The FDP was attended by 28 participants from various GTU affiliated colleges (listed on the last page). The event was coordinated by following faculties:

- Asst. Prof. Dhaval Jadhav, Department of Master in Computer Science
- Asst. Prof. Bhavesh Patel, Department of Computer Science & Engineering

INAUGURAL SESSION

The following esteemed personalities were present in the inauguration of the program:

1. Prof. BhaskerBhatt, S.M.C. Member, ISTE Gujarat Section **(Chief Guest)**
2. Shri Kiritbhai Patel, Secretary, Vidyabharti Trust
3. Shri Ashvinbhai Patel, Joint Secretary, Vidyabharti Trust
4. Dr. Ajay Shah, Campus Director, Vidyabharti Campus
5. Dr. Piyush Jain, Principal, SNPIT & RC

Formal inauguration of program

SITARAMBHAI NARANJI PATEL

INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE, UMRAKH

A Vidyabharti Trust Institution
Vidyabharti Campus, At. Ta. Bardoli, Dist. Surat-394345
Ph.02622-224581, 220581 Fax : 02622-227481,225458
Email : admin@snpitrc.ac.in, vbtdegree_umrakh@yahoo.co.in
Visit us on : www.snpitrc.ac.in

Dr. Piyush Jain, Principal, SNPIT &RC, welcomed all respected dignitaries and participants of FDP. He encouraged all participants to grab this opportunity and nurture their knowledge. He insisted on the skills and talents of the faculties required to make the teaching learning effective.

Prof. Dhaval Jadhav, Coordinator of FDP, spoke about the importance of the program. He highlighted objectives of the program and topics to be covered during FDP.

Chief Guest of ceremony, Prof. Bhasker Bhatt, S.M.C. Member, ISTE Gujarat Section emphasized the benefits of such kind of resourceful activity. He stressed out the current trends in technical education and need of adoptability with the changing global trends across the world. He explained the outcomes from mismatched technical education and industry demand with the help of various examples globally.

TECHNICAL SESSIONS:

All sessions throughout the FDP were interactive and hands on.

1st Day (17/12/2018)

Prof. Varsha Mali, Eminent Expert delivered an interactive session on "**Introduction to Python3**". She narrated difference between Python 2 and Pyhon3.Participants also learned the meaning, definition, syntax and delivering of python.

Prof. Varsha Mali: During the session

Prof.Varsha Mali further continued with applications of python along with examples. The session was very much interactive & informative. Participants were enlightened with the most widely used advance tools and technologies applicable in the active learning.

SITARAMBHAI NARANJI PATEL

INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE, UMRAKH

A Vidyabharti Trust Institution
Vidyabharti Campus, At. Ta. Bardoli, Dist. Surat-394345
Ph.02622-224581, 220581 Fax : 02622-227481,225458
Email : admin@snpitrc.ac.in, vbtdegree_umrakh@yahoo.co.in
Visit us on : www.snpitrc.ac.in

2nd Day (18/12/2018)

Prof. Varsha Mali continued the session on "Python Programming". She delivered on Numpy library, Import data and its application. Various ways of effective interaction and thinking methodologies were taught with the help of practical examples among the participants. Various tasks were given to participants so that all the methodologies could be understood easily.

She also taught advance topic "**Introduction to Neural Network**". In which contents like weights, bias, activation function was covered. She further explained "Multilayer Perceptron" and made participants understand this using practical examples. Finally, she taught importance of Smart Teaching and self-evaluation with Python3 and Neural Network.

Prof. Varsha Mali during the session

3rd Day (19/12/2018)

Dr. Vijay Katkar, eminent expert took the charge for next three days. He delivered the session on **"Python with deep learning"**. He explained tensor flow, basics of image processing. He also enlightens how an active learning could be useful while implementing these contents. He demonstrated the two projects those were carried successfully by him on Deep learning.

Dr. Vijay Katkar: Presenting Sessions

SITARAMBHAI NARANJI PATEL
INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE, UMRAKH

A Vidyabharti Trust Institution
Vidyabharti Campus, At. Ta. Bardoli, Dist. Surat-394345
Ph.02622-224581, 220581 Fax : 02622-227481,225458
Email : admin@snpitrc.ac.in, vbtdegree_umrakh@yahoo.co.in
Visit us on : www.snpitrc.ac.in

4th Day (20/12/2018)

Dr. Vijay Katkar took session on how to convert an image into data form. He further explained various operations on images. He asked participants to complete practical tasks and implement image related operations. On this day he also taught how to apply images as input to Multilayer Perceptron. All participants were given exercise related to MLP for a sample dataset.

5th Day (21/12/2018)

Dr. Vijay Katkar continued session on Advanced Multilayer Perceptron Concepts. He covered **"Introduction to Convolutional Neural Network"**. He further narrated various operations related to convolutional neural network. Applications pertaining to this were demonstrated on this day.

Lastly participants were given certain practical tasks to implement similar application.

6th Day (22/12/2018)

Shri Dilipbhai Patel, International Yoga Teacher was invited on this day to address participants and to deliver session on Art of Living. He made all participants do yoga and various related activities. He also narrated how to develop self-confidence while working in professional environment. He motivated all participants to believe in their self, adopt positivity in life and starch limits to work beyond their belief. Participants were asked for the feedback and comments regarding the FDP they attended. Qualifying test was conducted on this day in which all participants were asked to answer questions in a stipulated time.

SITARAMBHAI NARANJI PATEL

INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE, UMRAKH

A Vidyabharti Trust Institution
Vidyabharti Campus, At. Ta. Bardoli, Dist. Surat-394345
Ph.02622-224581, 220581 Fax : 02622-227481,225458
Email : admin@snpitrc.ac.in, vbtdegree_umrakh@yahoo.co.in
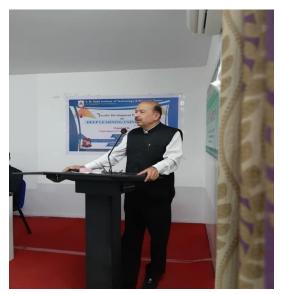Visit us on : www.snpitrc.ac.in

During Art of Living Session

VALEDICTORY SESSION:

The honorable personalities present on this occasion:

➢ Prof. Vijay Vaidya, Executive Secretary, ISTE New Delhi **(CHIEF GUEST)**

➢ Dr. Ajay Shah, Campus Director, Vidyabharti Campus

➢ Dr. Piyush Jain, Principal, SNPIT & RC

Executive Secretary, ISTE New Delhi at Valedictory

SITARAMBHAI NARANJI PATEL

INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE, UMRAKH

A Vidyabharti Trust Institution
Vidyabharti Campus, At. Ta. Bardoli, Dist. Surat-394345
Ph.02622-224581, 220581 Fax : 02622-227481,225458
Email : admin@snpitrc.ac.in, vbtdegree_umrakh@yahoo.co.in
Visit us on : www.snpitrc.ac.in

Prof. Dhaval Jadhav, Coordinator of FDP summarized the program. Dr. Piyush Jain, Principal, SNPIT&RC delivered words of wisdom and welcomed all dignitaries present at valedictory. He congratulated all participants for attending in this FDP.

Ceremony's Chief Guest, Prof. Vijay Vaidya, Executive Secretary, ISTE New Delhi appreciated the program and assured every support possible to conduct such programs in future for the faculty development. According to him in appropriate contexts in education, it could add value in teaching and learning by enhancing the effectiveness of learning or by adding an innovative dimension to learning. He appreciated the topic of this FDP stating Python is a need of current world.

All qualifying participants received institute level certificate of participation from Chief guest and other dignitaries who were present during valedictory.

The program was ended with concluding remark from Prof. Dhaval Jadhav

Executive Secretary, ISTE New Delhi at Valedictory Session

SITARAMBHAI NARANJI PATEL

INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE, UMRAKH

A Vidyabharti Trust Institution
Vidyabharti Campus, At. Ta. Bardoli, Dist. Surat-394345
Ph.02622-224581, 220581 Fax : 02622-227481,225458
Email : admin@snpitrc.ac.in, vbtdegree_umrakh@yahoo.co.in
Visit us on : www.snpitrc.ac.in

Certificate Distribution during Valedictory

OUTCOME:

All the sessions were very much informative. The discussed areas are of great benefit for the participants as the topics on python and Deep learning match with the current working domain. Participants were enlightened with the most widely used advance technologies in this domain. This in turn will help in teaching & learning activity and student's success.

All participants gain through knowledge on Python as well as on Deep Learning concepts which eventually prompts various researches areas to be concurred. This FDP definitely encourages participants to grab research oriented goals. It also helps faculties to let students work on various real time challenges.

List of Participants:

1. Dhaval Rangrej
2. Soneria Hardik Champaklal
3. Drashti Shah
4. Saini Jatinderkumar Ramdas
5. Panchal Viralkumar H.
6. Devarshi B Naik
7. Sandip Tandel
8. Chauhan Darshankumar Rajendrabhai
9. Vishmay Vaidya
10. Rutal Shardbhai Mahajan
11. Kajal Isamaliya

SITARAMBHAI NARANJI PATEL

INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE, UMRAKH

A Vidyabharti Trust Institution
Vidyabharti Campus, At. Ta. Bardoli, Dist. Surat-394345
Ph.02622-224581, 220581 Fax : 02622-227481,225458
Email : admin@snpitrc.ac.in, vbtdegree_umrakh@yahoo.co.in
Visit us on : www.snpitrc.ac.in

12. Hiral Dillipbhai Padhiyar
13. Aarti Parekh
14. Vishalkumar Zaverbhai Dhimmar
15. MiralThakker
16. Vishalkumar U Shah
17. Pritee Parmar
18. Mistry Vipul Hasmukhbhai
19. Bombaywala Salman
20. Shaikhji Zaid M
21. Patel Mayank A
22. Patel Virang R
23. Payal Tandel
24. Denish A Prajapati
25. Chiragkumar B Patel
26. Dilip Patel
27. Achal Mistry
28. Janakkumar B Patel