# CHHOTUBHAI GOPALBHAI PATEL INSTITUTE OF TECHNOLOGY
## Department of Computer Engineering and Information Technology

**A REPORT ON**
**A Five days Short Term Training Programme on**
**"Applications of Data Mining with Big Data Analytics" 9 – 13 January, 2017**

| | |
|---|---|
| **Organizing Department** | Department of Computer Engineering and Information Technology |
| **Chief Patron** | Dr. D R Shah |
| **Patron** | Dr. N C Shah |
| **Convener** | Ms. Purvi Tandel |
| **Coordinators** | Ms. Vibha Patel<br>Mr. Ankit Kharwar |
| **Organising Committee** | Mr. Mihir Patel<br>Mr. Dipak Dabhi<br>Ms. Niyanta Desai<br>Ms. Chandni Naik |
| **Target Audience** | Students of M. Tech. CE, M. Tech. IT, MCA, faculty members and research scholars |
| **Total Number of Participants** | 37 |
| **Date of Programme** | 9 – 13 January, 2017 |
| **Invited Speakers** | Dr. Bankim Patel, UTU, Bardoli<br>Dr. Amit Ganatra, Charusat University, Changa<br>Dr. U P Rao, SVNIT, Surat<br>Dr. Narendra Chauhan, ADIT, Anand<br>Mrs. Jayshree Tailor, UTU, Bardoli<br>Dr. Sakita Patel, SVNIT, Surat<br>Mr. Savan Raithatha, Solytics Infotech, Rajkot<br>Mrs. Niti Desai, RGIT, Mumbai |

## SCHEDULE:

| | 09-01-2017 | 10-01-2017 | 11-01-2017 | 12-01-2017 | 13-01-2017 |
|---|---|---|---|---|---|
| **8:30 to 09:00** | **Registration and Inauguration** | **High Tea** | | | |
| **9:00 to 10:00** | | Deep Learning & Data Publication (Dr. U P Rao, SVNIT) | Applications of Data Mining with GIS (Ms. Jayshree Tailor, UTU) | Big Data and Hadoop (Mr. Savan Raithatha, Solytics Infotech) | Big Data Analytics (Ms. Niti Desai, RGIT) |
| **10:00 to 11:00** | Overview of Data Mining, Big Data and their association with NLP & GIS (Dr. Bankim Patel, UTU) | | | | |
| **11:00 to 12:00** | | | | | |
| **12:00 to 12:45** | **Lunch Break** | | | | |
| **12:45 to 01:45** | Latest trend and issues in Data mining + Hand-on session (Dr. Amit Ganatra, Charusat) | Data Mining with Neural Networks (Dr. Narendra Chauhan, ADIT) | Privacy Preserving Data Mining (Dr. Sakita Patel, SVNIT) | Big Data technologies (Mr. Savan Raithatha, Solytics Infotech) | Hands on session on Big Data tools (Ms. Niti Desai, RGIT) |
| **01:45 to 02:45** | | | | | |
| **02:45 to 03:45** | | | | | Valedictory and certificate distribution |
| **03:45 to 04:00** | **Question - Answer Session** | | | | |

## DETAILS OF THE STTP:

The STTP started with an inauguration function at IBM Lab. Dr. N C Shah, Director – CGPIT along with all the head of the department were present to grace the function. Dr. N C Shah formally welcomed all participants and briefed regarding the STTP. He motivated participants to involve actively in the STTP. Then the session started at scheduled time. Details of the same are as follows:

**Day 1 – Session 1:**
Expert of the session: Dr. Bankim Patel, Director of SRIMCA, UTU.

Dr. Bankim Patel gave introduction of the Data Mining and Big Data Analytics (BDA). He gave overview of how different topics will be covered during the span of scheduled STTP. Difference between knowing, study and research was also covered during the session.

**Day 1 – Session 2:**
Expert of the session: Dr. Amit Ganatra, Professor, Charusat University, Changa

Dr. Amit Ganatra started the session with the data mining techniques. He covered the details of classification methods and evaluation measures of classification. Hands on session of

different tools like Weka, Rapid miner, Tanagra, Orange, Sipina Research and R GUI were also covered in detail during the session.

**Day 2 – Session 1:**
Expert of the session: Dr. U P Rao, Assistant Professor, SVNIT, Surat

Dr. U P Rao started the session with deep learning methods for big data analytics. He gave overview of different machine learning algorithms. He continued the session with the concepts of data publishing – Privacy attacks and counter measures.

**Day 2 – Session 2:**
Expert of the session: Dr. Narendra Chauhan, Professor, ADIT, Anand

Dr. Narendra Chauhan started the session with the introduction to neural networks.  He covered different supervised learning algorithm in detail with their comparative analysis. Different applications like handwritten character recognition, pose detection, MRI image recognition, text classification and modifying & designing of microwave components were also discussed.

**Day 3 – Session 1:**
Expert of the session: Ms. Jayshree Tailor, UTU, Bardoli

Ms. Jaishree Tailor covered the session on "Data Mining and Big Data Analytics: A Geographical Information Systems Perspective". She explained the need and capabilities of GIS in data analytics. She also covered the research issues of the same.

**Day 3 – Session 2:**
Expert of the session: Dr. Sakita Patel, SVNIT, Surat

Dr. Sankita Patel covered the session on privacy preserving data mining – secure multiparty computation.

**Day 4 – Session 1 & 2:**
Expert of the session: Mr. Savan Raithatha, Solytics Infotech, Rajkot

Mr. Savan Raithatha covered the session on big data and Hadoop. He started the session with the introduction to big data and data analytics. He took the case study of many applications like life science, manufacturing, marketing, media & entertainment, etc. to explain the need of data analytics. Big data challenges, different V's were also covered. The session was followed by Hadoop File System. Hadoop architectures, Hadoop eco-systems and different implementations of Hadoop were discussed.
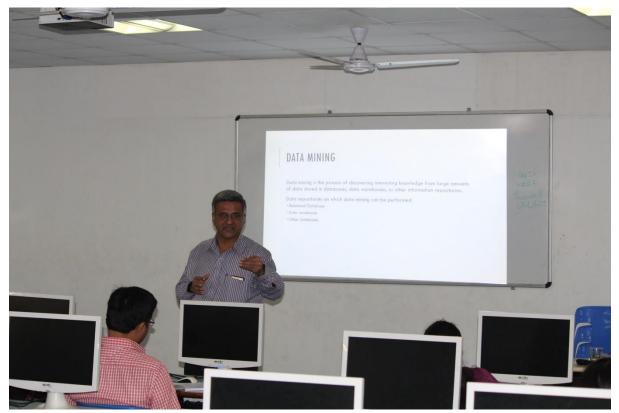
**Day 5 – Session 1 & 2:**
Expert of the session: Ms. Niti Desai, RGIT, Mumbai

Ms. Niti Desai covered the session on "Trend in Big Data Analytics". She took the example of recommender systems to explain the internals of data analytics. The session was followed by installation of cloudera and mongo DB. Hands-on exercises were done on HDFS commands and different case studies.

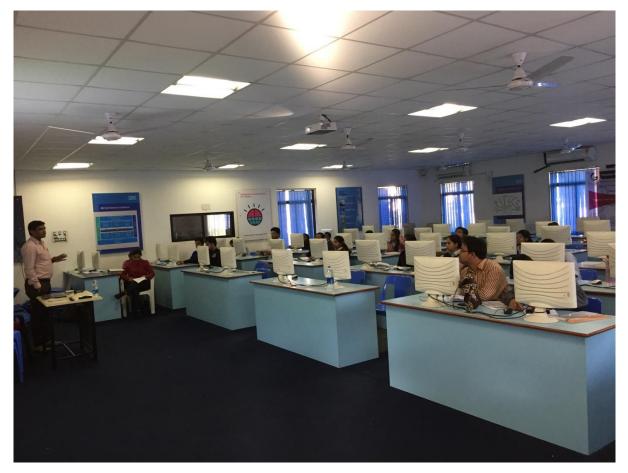# **GLIMPSE OF THE STTP:**



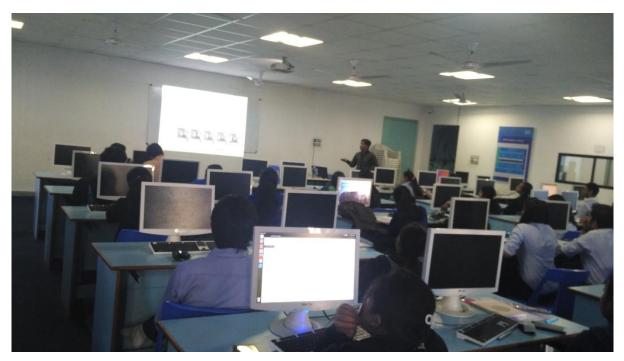Inauguration function



Dr. Bankim Patel during the session

Dr. Amit Ganatra during the session



Dr. U P Rao during the session

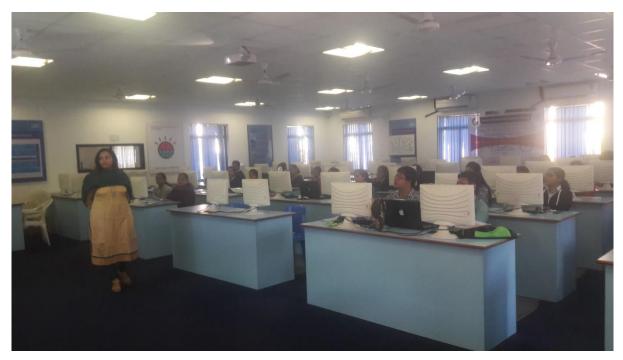Dr. Narendra Chauhan during the session


Mrs. Jaishree Tailor during the session

Dr. Sankita Patel during the session



Mr. Savan Raithatha during the session

Mrs. Niti Desai during the session



Valedictory function

## FEEDBACK ANALYSIS:

| Questions | Strongly Agree | Agree | Neither | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| Was the training relevant? | 5 | 24 | 0 | 0 | 0 |
| Delivery of the subject was clear and understandable. | 8 | 21 | 0 | 0 | 0 |
| I am confident of applying learning's for my research and personal growth. | 8 | 21 | 0 | 0 | 0 |
| Trainers were knowledgeable, enthusiastic and well-prepared. | 16 | 13 | 0 | 0 | 0 |
| Trainer encouraged participation and group interaction. | 10 | 18 | 1 | 0 | 0 |
| Overall trainer's performance and course delivery was good. | 9 | 20 | 0 | 0 | 0 |
| Duration of training was sufficient. | 10 | 17 | 2 | 0 | 0 |
| The training objectives were accomplished to my expectation. | 11 | 17 | 1 | 0 | 0 |
| I will recommend this training to others. | 10 | 19 | 0 | 0 | 0 |
| Did you find the training program worthwhile? | 8 | 20 | 1 | 0 | 0 |
| Was quality of food good? | 4 | 18 | 2 | 4 | 1 |
| Was communication of course information proper? | 10 | 18 | 1 | 0 | 0 |
| Was the arrangement of program proper? | 11 | 18 | 0 | 0 | 0 |