### AICTE-ISTE Approved one week STTP on

### "Natural Language Processing: Theory and Practices"

## Organized by Department of Computer Engineering, SFIT on

#### 2nd -6th December, 2019

#### REPORT

Department of Computer Engineering, had organized one week STTP on "Natural Language Processing: Theory and Practices" during 2-6 December, 2019. The objectives of this STTP was to to cultivate the seed of NLP as the emerging area of advance computing in educational and industrial field and motivate the participants to explore various applications and real-world problems of natural language processing. The major focus of th workshop was to make awareness of NLP from basic to advance with practical exposure to emerging concepts of NLP like machine translation, semantic analysis, etc. Also, to expose and practice on current trends and emerging tools of NLP. The goal of the STTP was to help the participants to generate new ideas in NLP domain towards solution of real world problems. Inauguration of STTP commenced with Prayer and Lighting of the lamp to seek the blessings of God Almighty in presence of Chief Guest Dr. Subhash Shinde – Vice Principal(LTCOE) , Director -SFIT, Principal, HODs, Deans, TPO, faculties, participants. Dr. Kavita Sonawane , Head of CMPN Department, SFIT welcomed the participants and briefed about the motivation of conducting STTP. Ms. Dakshata Panchal, Course coordinator of STTP briefed the participants about the course contents & objective of the training program.



# Day 1:

Chief Guest and keynote speaker Dr. Subhash Shinde, Vice Principal, Lokmanya Tilak College of Engineering delivered keynote address & gave overview of Natural Language Processing. On the same day Mr. Santosh Chapaneri, Assistant Professor in the department of Electronics and Telecommunication Engineering, SFIT introduced the participants to key concepts of deep learning in natural language processing along with the hands-on session.



Keynote address by Dr. Subhash Shinde, LTCOE



Expert talk by Mr. Santosh Chapaneri, SFIT



Participants during keynote address

# Day 2:

Ms. Jayashree Jagdale, Assistant Professor at Pune Institute of Technology, Pune delivered a hands-on session on tools for text preprocessing. She discussed about various text preprocessing techniques required for natural language

processing and a hands-on session on the various tools in python was taken. On the same day, Dr. Kranti Ghag, Shah and Anchor College of Engineering, Chembur, Mumbai delivered session on text parsing and text classification. Lab session for various text parsing and classification techniques in python was conducted along with the theory session.





Ms. Jayashree Jagdale, Assistant Professor, PIT, Pune

Dr. Kranti Ghag, SAKCE, Chembur

**Day 3:** Dr. Phiroz Sheikh from Don Bosco Institute of Technology, Kurla conducted session on designing corpora for NLP applications to cultivate the importance of NLP in real world applications. On the same day, second session was delivered by Dr. Neepa Shah, Visiting Faculty, D.J. Sanghavi College of Engineering, Vile Parle(W) on semantics: applications and case studies. She discussed various case studies on various NLP applications. In the second half of the day, Ms. Tamali Banerjee, Research Scholar, IIT Bombay discussed machine translation with hands on session on the various tools available in python for machine translation.



Dr. Phiroz Sheikh, DBIT, Kurla



Dr. Neepa Shah, Visiting faculty, DJCOE, Vile Parle



Ms. Tamali Banerjee, Research Scholar, IITB

### Day 4:

A session on sequential tagging was conducted by Mr. Harsh Jalan, Formerly Co-founder Daten and Wissen, Mumbai. He covered the concepts of text summarization, it's needs and various tools available in python to do text summarization and sequential tagging. Later in the second half of the day, introduction to sentiment analysis with the concepts of Senti-Wordnet was introduced and explained by Ms. Manasi Kulkarni, Assistant Professor, VJTI, Mumbai and Research scholar, IITB. Different tasks such as sarcasm detection, polarity detection to name a few were discussed and practical session was conducted to introduce the various tools available to do so were briefed.



NLP by Mr. Harsh Jalan,

Ms. Manasi Kulkarni , Assistant professor, VJTI & Research Scholar, IITB

# Day 5:

A hands-on session on a Chatbot application development was conducted by Ms. Garima Yadav, Data Scientist, Blocklogy, Mumbai. Use of NLTK library of python for Chatbot implementation was demonstrated. The second session on that day was conducted by Dr. Supriatim Biswas, Adjunct Professor, IITB who gave a deep insight on research directions in NLP. He discussed about the current development in the area of NLP along with the roadmap about reserach directions in NLP. The last session of the STTP was conducted by Ms. Rajashree Shedge, Assistant Professor, Ramrao Adik Institute of Technology, Nerul, Navi Mumbai. The speaker discussed about the importance of NLP and why it has been introduced in the curriculum of final year engineering syllabus. She also discussed the prescribed syllabus of Mumbai University in detail.



Ms. Garima Yadav, Data Scinetist, Blocklogy, Mumbai Dr. Supratim Biswas, Adjunct Professor, IITB



Ms. Rajashree Shedge, Assistant Professor, R.A.I.T. Navi Mumbai

The Valedictory function was organized to felicitate participants on successful completion of one week training program on "Natural Language Processing: Theory and Practices" and Training Completion Certificates were presented to the participants.



**Group Photo of participants - During Valedictory Function** 

Patron: Bro. Jose Thuruthiyil (Director, SFIT) and Dr. Sincy George (Principal, SFIT)

Convener: Dr. Kavita Sonawane-Professor, Head of the Department (Computer Engineering),

SFIT Coordinator: Ms. Dakshata Panchal (Assistant Professor, SFIT) and Ms. Pradnya Rane (Assistant Professor, SFIT)

**Organizing Committee:,** Ms. Bidisha R, Mr. Rajkumar S, Ms. Anuradha G, Ms. Vincy J, Mr. Shamshuddin K, Ms. Pradnya R, Ms. Nidhi G, Ms. Priya K, Ms. Jayshree M, Ms. Safa H, Ms. Varsha N, Mr. Rupesh M, Ms. Ankita K, Ms. Snehal K, Ms. Sweedal M, Ms. Vanessa D, Ms. Shobha T, Ms. Pratibha Rane, Ms. Tejal C. , Ms. Stephina D'souza, Ms. Supriya S, Mr. Amanat P, Mr. Mandar R, Ms. Nivedita, Ms. Vaishali B.

Report prepared by Ms Dakshata Panchal & Ms Pradnya Rane Coordinator, STTP