Sri Shridevi Charitable Trust (R.)



## SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY

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(Approved by AICTE, New Delhi, Recognised by Govt, of Karnataka and Affiliated to Visvesvaraya Technological University, Belagavi)

## SYLLABUS FOR VALUE ADDED COURSE ON "NPL USING PYTHON"

# **Topics**

#### Introduction and Overview

what is Natural Language Processing, hands-on demonstrations. Ambiguity and uncertainty in language..

### Regular Expressions

Chomsky hierarchy, regular languages, and their limitations. Finite-state automata. Practical regular expressions for finding and counting language phenomena..

### Programming in Python

An introduction to programming in Python. Why Python? Variables, numbers, strings, arrays, dictionaries, conditionals, iteration. The NLTK (Natural Language Toolkit), with demonstrations.

## String Edit Distance and Alignment

Key algorithmic tool: dynamic programming, first a simple example, then its use in optimal alignment of sequences. String edit operations, edit distance, and examples of use in spelling correction, and machine translation.

### Assessment:

### Students should obtain:

Min 80% of attendance Min 80% Participation in practice session Quiz

Dept of E&C SIET, Tumkur-6