



Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

Criteria 1.3 : Curriculum Enrichment

**1.3.3 Percentage of students undertaking project work/ field work/
internships (Data for the latest completed academic year) -2020-21**

Department of Information Technology -M.E



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List of M.E Field Projects 2020-21



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M.E. Information Technology Field Projects 2020-21

Name of the Student	Mentor Name/Faculty Name	Title of the Project/Lab
Bodhale Vaishali Suryakant	Dr M Vijayalakshmi Dr Shalu Chopra	Cybersecurity
Chintawar Shubhnagi Sanket	Dr M Vijayalakshmi Dr Shalu Chopra	Deep reinforcement learning
Bhojar Sangita Sujit	Dr Manoj K Sabnis	Video forgery detection
Tonge Sbhuhra Kishor	Dr Shanta sondur	Natural language processing-Speech Emotion Recognition system



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A Special Topic Seminar
On

Speech Emotion Recognition System

Submitted to Mumbai University

In the partial fulfilment of requirement for the degree of

MASTER OF ENGINEERING
In
INFORMATION TECHNOLOGY

By
Shubhra Tonge



Under the guidance of

Dr. Mrs. Shanta Sondur

Department of Information Technology

Vivekanand Education Society's Institute of Technology

Chembur, Mumbai-400074

2020-2021





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DEPARTMENT OF INFORMATION TECHNOLOGY

Certificate

This is to certify that **Mrs. Shubhra Tonge** has satisfactorily carried out the special topic seminar work entitled '**Speech Emotion Recognition System**' for the degree of **Master of Engineering in Information Technology** of University of Mumbai.

Dr. Mrs. Shanta Sondur
(Project Guide)
(Professor)

Dr. Mrs. Shalu Chopra
(Head of Department)





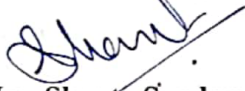
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DEPARTMENT OF INFORMATION TECHNOLOGY

Certificate of Approval

This is to certify that special topic seminar entitled 'Speech Emotion Recognition System' for the degree of Master of Engineering in Information Technology submitted to the University of Mumbai by Mrs. Shubhra Tonge, bonafide student of Vivekanand Education Society's Institute of Technology, Chembur, Mumbai-400074 has been approved for the award of Master of Engineering in Information Technology.


Dr. Mrs. Shapta Sondur

(Project Guide)

(Professor)

Dr. Mrs. Shalu Chopra

(Head of Department)



Dr. Mrs. J. M. Nair

(Principal)





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ABSTRACT

Automatic human speech emotion recognition has been receiving increasing attention from researchers, engineers, developers and scientist since last few years. Automatic human speech emotion recognition is considered to be area of computer vision and several algorithms have been proposed to extract human emotions from the raw speech data. Most of the research is focused on a single modality such facial expression, or speech or body language such as gesture or posture. Speech is the most direct, important and natural method of communication among human, and communication between human and machine. Emotion recognition from speech signals is an important but challenging component of Human-Computer Interaction (HCI). HCI systems aim to facilitate the natural interaction with machines by direct voice interaction instead of using traditional devices as input to understand verbal content and make it easy for human listeners to react. Some applications include dialogue systems for spoken languages such as call centre conversations, on board vehicle driving system, driver less cars, autonomous robots and utilization of emotion patterns from the speech in allied health care or medical applications.

In the literature of speech emotion recognition, many techniques have been employed to extract emotions from speech signals that include several sophisticated speech analysis and classification techniques. Traditional speech analysis and classification techniques have performed remarkably in speaker and speech recognition applications. However these techniques are inefficient in speech emotion recognition. Deep Learning techniques have been recently proposed as an alternative to traditional techniques in speech emotion recognition. Speech emotion recognition techniques consists of two fundamental modulus represented as feature extraction and features classification. Application of deep learning algorithms and the network automatically selects important information from raw speech signal which is applied in classification layer to successfully accomplish emotion recognition task. Deep Learning techniques for speech emotion recognition have several advantages over traditional methods, including their capability to detect the complex structure and features without the need for manual feature extraction and tuning; preference toward extraction of low-level features from the given raw speech data, and ability to handle with un-labelled data.



Shreya



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