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Application Details	
APPLICATION NUMBER	202141043101
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	23/09/2021
APPLICANT NAME	**VNR Vignana Jyothi Institute of Engineering and Technology(VNRVJIET)**
TITLE OF INVENTION	A Novel Machine Learning tool and approach / method for Telugu Dependency Parsing using Combinatory Categorical Grammar
FIELD OF INVENTION	COMPUTER SCIENCE
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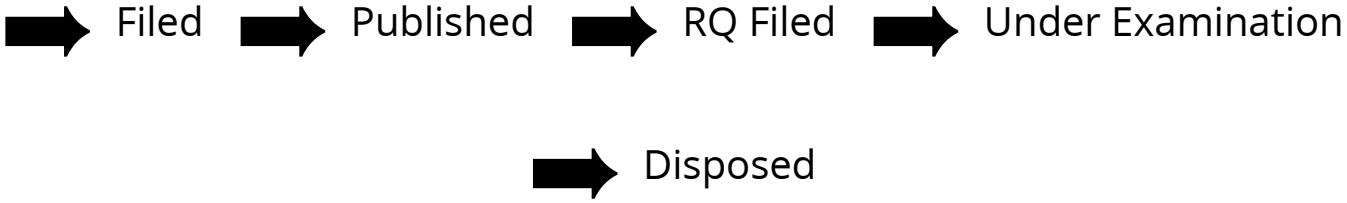
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	01/10/2021

Application Status	
APPLICATION STATUS	**Awaiting Request for Examination**

View Documents



In case of any discrepancy in status, kindly contact ipo-helpdesk@nic.in

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :23/09/2021

(21) Application No.202141043101 A
(43) Publication Date : 01/10/2021

(54) Title of the invention : A Novel Machine Learning tool and approach / method for Telugu Dependency Parsing using Combinatory Categorical Grammar

(51) International classification :G06N 20/00
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
A Natural Language Parsing and syntax analysis using machine learning approach is provided. Also, developed is a Combinatory Categorial Grammar using machine learning approach. A method of providing Supertagger for Telugu language and to explore super tagger to improve Telugu dependency parsing .CCG supertags which contain sub categorization information helps Telugu parsing in general and MST Parser in particular at better recovery of verbal arguments. First extracted the CCG lexicon from the dependency treebank. Using both CCG lexicon and dependency treebank, created a CCG Treebank using a chart parser. Developed a CCG super tagger and provided the supertags as features to MaltParser , MSTParser. Achieved an improvement of 1.8% in unlabelled attachment score and 2.2% in labelled attachment score for MST Parser. A multitagger assigns all categories to a word whose probabilities are within some factor, b, of the highest probability category and by using multi tagger while parsing gives better performance.

No. of Pages : 13 No. of Claims : 2