NAYAK PREMPRAKASH | 16CE10032
CIVIL ENGG. (B.Tech 4Y)

EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2020	B.TECH	IIT Kharagpur	6.09 / 10
2015	XII(Gujarat Board)	Shree Gattu Vidyalaya	79%
2013	X(Gujarat Board)	Shree Gattu Vidyalaya	86%

SKILLS AND EXPERTISE

•**Relevant Coursework:** Programming And Data Structure | Probability and Statistics | Algorithm | Linear And Matrix Algebra | Machine Learning | Soft Computing Tools in Engineering | Basic Electronics | Globalization And Culture
• **Programming Languages &Technologies:** C++ | Python | R(beginner) | JAVASCRIPT | PHP | SQL
•**Technical Softwares:** MATLAB | Jupyter Notebook | Microsoft Office | Excel-VBA, AutoCAD

INTERNSHIPS

Internet Of Things And Machine Learning | BolT IoT   June 2019 - July 2019

•**Temperature Monitoring System**: Built the circuit for temperature monitoring system, using the Bolt and LM35 sensor, Wrote a python code which will fetch the temperature data, every 10 seconds, these data were collecetd on **Bolt Cloud**.
- Sends out an email alert, if the temperature goes beyond the threshold temperature , wrote Z-score analysis code in Python to detect anomalies in temperature and send message alert to users.
•**LED Control System:** Controlling Led brightness using API calls for **Bolt** and **Arduino,** used **PWM** (pulse width modulation) for controlling the intensity of LED from Bolt python Library.
•Worked on various other projects like Room light Intensity Monitoring system,Plant Monitoring System using **LDR**, Home Automation using Internet of Things and Machine learning, Analyzed data obtainded from project which were stored on **Bolt cloud**.

Oil and Natural Gas Corporation | |Ankleshwar,Gujarat   May 2019 - July 2019

•Working under the mentorship of Mr. Rajendra Mane, Chief engineer(Civil) in Engineering Service division ,ONGC Ankleshwar.
•Visited various working sites of **ONGC**, Jambusar, Gandhar, Dahej and got hands on experience of civil and foundation work of Oil rigs, also got exposure of their tendering work.
•Did Cost Estimation of Various Residental buildings and upcoming construction projects going on there and helped in maintenance work.
•Studied tender documents of the various published tenders amd learnt the process and stages of accepting the tender, learnt the contractor aspect of construction projects.

PROJECTS

RESEARCH PROJECT | Lecture Notes Generator |CNN|NLP   Jan 2019 - April 2019

•Converted speech to text from video lectures by using deep neural networks to process those texts which can be summarized using weighted frequency of words.
• Processing of the figures and text in image obtained from data were done by using convolutional neural networks using   Computer vision to incude Important images and text in Overall summarization of notes.
•By natural language processing, processed the text obtained from video using NLTK and spacy library, Filtered important words from the text on the basis of weighted frequency of words after sentence tokenization of texts.
•Displayed these important points in the proper format so that it becomes easily understandable.

Neural Network Project | Tidal level prediction|Guide: Prof. S.K. Barai   Feb 2019 - March 2019

•Data pertaining to three different locations, two on the western coast,Mumbai and Kochi, one on the eastern coast,Vizag were collected and implemented deep learning algorithm to make tidal level predictions in oceans.
•Collected data were used for study, thereafter implemented Artificial Neural Network(ANN) &Levenberg-Marquardt algorithm for predicting tidal levels at base station as well as station far away from main station.
•Identified problems,reviewed and proposed optimal setting resulting in an Nash-sutcliff efficiency of 0.9663 for Mumbai and 0.9966 for Vizag with 0% increase in run time.

Risk Assesment of Bridges using Fuzzy Logic control system |Guide: Prof. S.K. Barai   Jan 2019 - Feb 2019

• Designed a fuzzy controller for the risk assessment of bridges ,Different type of bridge damage and collapse risk like Flood risk ,Earthquake risk were taken as input and its membership functions were created.
• Using MATLAB , Created a Fuzzy logic control system, which can be used to predict damage level of different kind of bridges depending upon its vulnerability to different kind of risks.

POSITIONS OF RESPONSIBILITY

Core Organising Team Member | Megalith | Annual techical Fest of Civil Engineering , IIT Kharagpur   July 2017-April 2018

•Worked as 'Web team member' in Megalith 2018, responsible for the hosting,backend development of the website,formulation,planning and execution of the online registration of the participants
•Handled the database of all participants and analyze them to improve the publicity of the Fest and executed the **Publicity Campaign** in 60 colleges around 7 cities all over india and managed the crowd of 800 plus participants.

AWARDS AND ACHIEVEMENTS

• Ranked in top 1% among 1.86 lakhs appeared in IIT Joint Entrance Exam (JEE Advanced) 2016.
• Got award at school level in 2015, for best Academic record, got scholarship from school.

EXTRA CURRICULAR ACTIVITIES

• **Group leader**: Led the unit members in annual NSS camp resulting in 50% improvement in unit's performance.
•Participated in Inter-Hall illumination competition thereby contributing significantly in inter-hall GC events.

!self declaration by the student