



ATUL KUMAR

FARM MACHINERY AND POWER



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#### EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2022	M.TECH	IIT Kharagpur	8.17/10
2019	B.Tech (Agriculture Engineering)	Jawaharlal Nehru Krishi Vishwavidyalaya	7.37/10
2013	12 <sup>th</sup> board	Government higher secondary school, Majhagawan	84%
2011	10 <sup>th</sup> board	Saraswati sishu mandir, Majhagawan	81.16%

#### COURSE WORK INFORMATION

Statistical method, Robotics, Farm machinery design, Tractors system design, Alternative energy sources, Internal combustion engine

#### SKILLS AND EXPERTISE

**Programing skill**-Python

**Libraries and tools**-Pandas, Numpy, Tensorflow, Matplotlib, Keras

**Soft skills**- Interpersonal skill, team work, time management, creativity

**Technical skill**-Design and operation of agriculture equipment, operation of tractor and diesel engines, Microsoft office, web page design

**Software and Platforms**-MATLAB, Anaconda

#### PROJECTS

**B.Tech project**:-"Development of a structure for controlling irrigation erosion due to pipe flow"

In the field, direct irrigation caused the cutting of soil where the water falls from the pump. To overcome this problem, a cuboid shaped open box structure of iron has developed where water was come from pump to open surface of structure and an outlet has provided with iron sheet where stilling basin has provided for reducing the velocity which reduce erosion effectively

**M.Tech project**:-"Chili identification on field by image processing"

A large number of images of green chilies and red chilies are taken and processed through MATLAB software where image processing operations has done to modify the image quality and also for detection of red chilies from a chili plant images. For separating both type of chilies, a CNN based machine learning model is developed with the help of keras and tensorflow in jupyter notebook by data training and testing.

**Self-project**-Developed a graphical user interface for image conversion operations with the help of MATLAB software

#### TRAINING

1. One month training from **Central Farm machinery Training and Testing Institute, Budni**

**(Madhya Pradesh)** :- Training on

Operation and maintenance of tractor and agriculture machinery, Study of various sub-assemblies of tractor and diesel engine, Introduction to tractor training activities.

2. One month training from **Central Institute of Post-Harvest Engineering and Technology,**

**Ludhiana (Punjab)**:- Training on

Study of microencapsulation and spray chilling

#### INTERNSHIPS

Four months college internship of **IWMP evaluation** from **Water and Land Management Institute,**

**Bhopal(Madhya Pradesh)**:- Role of internship are

Survey of Watershed areas and evaluate the impact of watershed structure, evaluate the agriculture and livelihood activities, check the measurements of structure and cost expenditure of administration.

#### CERTIFICATIONS

**Diploma in computer application** from Makhn Lal Chaturvedi national university of journalism and communication, Bhopal(Madhya Pradesh)

#### AWARDS AND ACHIEVEMENTS

**GATE 2020**- Secured All India rank 76 in GATE 2020 exam